



Canadian  
Intellectual Property  
Office

An Agency of  
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du Canada

Un organisme  
d'Industrie Canada

ISSN-1712-4034

# The Patent

Office Record

# La Gazette

du Bureau des brevets



Vol. 151 No. 49 December 5, 2023

Vol. 151 No. 49 le 5 décembre 2023

Canada



# THE CANADIAN PATENT OFFICE RECORD

## LA GAZETTE DU BUREAU DES BREVETS

The Canadian Patent Office Record is published on Tuesday of each week under the authority of the Commissioner of Patents, Ottawa-Gatineau, Canada, to whom all communications should be addressed.

The Canadian Intellectual Property Office does not guarantee the accuracy of this publication, nor undertake any responsibility for errors or omissions or their consequences.

La Gazette du Bureau des brevets paraît le mardi de chaque semaine sous l'autorité du Commissaire aux brevets, Ottawa-Gatineau, Canada, à qui doit être adressée toute correspondance.

L'Office de la propriété intellectuelle de Canada ne garantit pas l'exactitude de la présente publication et ne se rend responsable d'aucune erreur ou omission ou de leurs conséquences.

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## Notices

## Avis

### 1. Dates and Code Numerals Appearing in Patent Headings

#### Dates

All dates appearing in the patent headings of this publication follow the form recommended by the International Standards Organization. The four digits on the left represent the years followed by two digits each for the months and the days. For example, January 02, 1999 will be shown as 1999-01-02.

#### Code Numerals

The numerals within the brackets in the patent headings are INID codes. "INID" is an acronym for "Internationally agreed Numbers for the Identification of Data". These codes are utilized to identify patent bibliography as recommended by the Permanent Committee on Industrial Property Information (PCIPI) under the administration of the World Intellectual Property Organization (WIPO) based in Geneva, Switzerland.

The INID Codes and their corresponding definitions of bibliographic data elements are as follows:

- [11] - Number of Patent document
- [13] - Kind-of-document code
- [21] - Number assigned to the Application
- [22] - Date of Filing Application or
- [22] - Date of filing of related divisional application
- [25] - Language in which the published application was originally filed
- [30] - Data relating to priority under the Paris Convention
  
- [41] - Open to Public Inspection Date
- [45] - Date of Issue
- [48] - Correction Date ( Re-Issued, Re-Examined )
- [51] - International Classification
- [52] - Domestic Classification
- [54] - Title of Invention
- [60] - Related by Supplementary Disclosure
- [62] - Related by Division
- [64] - Related by Reissue
- [71] - Name(s) of Applicant(s)
- [72] - Name(s) of Inventor(s)
- [73] - Name(s) of Grantee(s)
- [85] - National Entry Date
- [86] - PCT International Filing Data
- [87] - PCT International Publication data

### 1. Dates et chiffres de code figurant à l'entête des brevets

#### Dates

Toutes dates figurant aux entêtes des brevets de cette publication suivent la forme recommandée par l'Organisation des normes internationales. Les quatre chiffres de gauche représentent les années et sont suivis, vers la droite, de deux autres chiffres chacun, pour les mois et les jours. Le 2 janvier 1999, par exemple, sera représenté par 1999-01-02.

#### Chiffres de code

Les chiffres à l'intérieur des parenthèses aux entêtes des brevets sont des codes INID. Le sigle « INID » signifie « Identification numérique internationale des données bibliographiques ». Ces codes sont utilisés pour l'identification de la bibliographie de brevets, tel que recommandé par le Comité permanent chargé de l'information en matière de propriété industrielle (PCIPI), sous l'administration de l'Organisation mondiale de la propriété intellectuelle (OMPI), sise à Genève, Suisse.

Les codes INID accompagnés des définitions des données bibliographiques correspondantes sont comme suit :

- [11] - Numéro du brevet
- [13] - Désignation du type de document
- [21] - Numéro attribué à la demande
- [22] - Date du dépôt de la demande ou
- [22] - Date du dépôt de la demande divisionnaire apparentée
- [25] - Langue dans laquelle la demande publiée a été initialement déposée
- [30] - Données relatives à la priorité selon la Convention de Paris
  
- [41] - Date de mise à la disponibilité du public
- [45] - Date de délivrance
- [48] - Date de correction ( Redélivrance, Réexamen )
- [51] - Classification internationale
- [52] - Classification nationale
- [54] - Titre de l'invention
- [60] - Apparenté par divulgation supplémentaire
- [62] - Apparenté par division
- [64] - Apparenté par redélivrance
- [71] - Nom(s) du (des) demandeur(s)
- [72] - Nom(s) de(s) l'inventeur(s)
- [73] - Nom(s) du (des) titulaire(s)
- [85] - Date d'entrée en phase nationale
- [86] - Données du dépôt international selon le PCT
- [87] - Données de publication internationale selon le PCT

## 2. Country Code

The Country Codes appearing in this publication conform to those contained in annex A of the *Handbook on Industrial Property Information and Documentation* published by the World Intellectual Property Organization (WIPO). This document is accessible from a link entitled Standards ST-3 on the List of WIPO Standards, Recommendations and Guidelines (Abbreviated Titles) located on the WIPO Web site: ([www.wipo.int/scit/en/standards/standards.htm](http://www.wipo.int/scit/en/standards/standards.htm)).

## 3. How to Purchase Paper Copies of Canadian Patents and Canadian Applications Open to Public Inspection

Paper copies of all other Canadian Patents and Canadian applications open to public inspection may be purchased at the cost of \$1 per page by visiting ([www.strategis.ic.gc.ca/patentsorder](http://www.strategis.ic.gc.ca/patentsorder)) or by writing to the Commissioner of Patents, Ottawa-Gatineau, K1A 0C9.

Item 25.1* On requesting copy in electronic form of a document:	N/A
a) for each request	\$10
b) plus, for each patent or application to which the request relates	\$10
c) plus, if the copy is requested on a physical medium, for each physical medium requested in addition to the first	\$10
d) plus, for each additional 10 megabytes or part of them exceeding 7 megabytes	\$10

## 4. Orders for Patents by Class or Sub-Class

A listing of all patents that have issued in each class or sub-class including both patents in force and expired patents, may be ordered at a price of \$1 per page from the Patent Office.

## 2. Code des pays

Les Codes des pays qui se trouvent dans cette publication sont conformes à ceux dans l'annexe A du *Manuel sur l'information et la documentation en matière de propriété industrielle* publié par l'Organisation Mondiale de la Propriété Intellectuelle (OMPI). Ce document est accessible à partir de l'hyperlien intitulé Normes ST-3 dans la Liste des normes, recommandations et principes directeurs de l'OMPI (Titres abrégés) qui se trouve au site Web de l'OMPI: ([www.wipo.int/scit/fr/standards/standards.htm](http://www.wipo.int/scit/fr/standards/standards.htm)).

## 3. Comment acheter des copies sur papier de brevets canadiens et de demandes canadiennes mises à la disponibilité du public

Les copies sur papier de tous les autres brevets canadiens et des demandes canadiennes mises à la disponibilité du public peuvent être achetées au coût de 1 \$ par page en visitant notre site Web ([www.strategis.ic.gc.ca/brevetscommande](http://www.strategis.ic.gc.ca/brevetscommande)) ou en écrivant au Commissaire aux brevets, Ottawa-Gatineau, K1A 0C9.

Article 25.1* Demande d'une copie d'un document sous forme électronique :	S.O.
a) pour chaque demande	10 \$
b) pour chaque demande de brevet ou brevet visé par la demande	10 \$
c) dans le cas où le document doit être copié sur plus d'un support matériel, pour chaque support matériel additionnel	10 \$
d) pour chaque tranche de 10 méga-octets qui excède 7 méga-octets, l'excédant étant arrondi au multiple supérieur	10 \$

## 4. Commande de brevets par classe ou sous-classe

Les listes de brevets délivrés dans chaque classe ou sous-classe, incluant les brevets en vigueur et ceux ayant expiré, peuvent être commandées auprès du Bureau des brevets au prix de 1 \$ la page.

## 5. Advice on Making a Patent Application

Any person intending to file a patent application may obtain an information kit upon request from the Commissioner of Patents, Ottawa-Gatineau, Canada K1A 0C9. It is recommended that applicants make use of the services of a registered Patent Agent. A list of Patent Agents in any area of Canada will also be supplied upon request.

## 6. Licensing of Patents

### Voluntary Licences

Persons desiring to use, make or sell an invention patented in Canada should negotiate terms with the patent owner. The address of the patentee may be obtained by writing to the Commissioner of Patents, Ottawa-Gatineau, Canada, K1A 0C9. If a voluntary licence cannot be arranged, a compulsory licence may be possible.

### Compulsory Licences

Three years after a patent has been granted, one may request a compulsory licence to use the patent if there has been an abuse of the exclusive right. See Sections 65 to 71 of the *Patent Act*. Applications for a compulsory licence are made to the Commissioner of Patents.

## 7. Patents Available for Licence or Sale

An asterisk (\*) placed beside any patent listed in this issue of the *Canadian Patent Office Record* indicates that as of the date of grant the said patent is available for licence or sale. These and other patents now made available for licensing are included in the listing in part 8 of these notices.

## 8. List of Patents Available for Licence or Sale

The following Canadian patents have been made available this week for sale or licensing:

None

## 5. Conseils relatifs à la préparation de demandes de brevets

Toute personne qui a l'intention de déposer une demande de brevet peut obtenir une trousse d'information sur demande faite au Commissaire aux brevets, Ottawa-Gatineau, Canada K1A 0C9. On recommande aux demandeurs d'avoir recours aux services d'un agent de brevets inscrit au registre. Une liste des agents de brevets dans n'importe quelle région du Canada sera également fournie sur demande.

## 6. Octroi de licences en vertu des brevets

### Licences librement accordées

Les personnes désirant utiliser, fabriquer ou vendre une invention brevetée au Canada doivent en négocier les conditions avec le titulaire du brevet. L'adresse du titulaire peut être obtenue en écrivant au Commissaire aux brevets, Ottawa-Gatineau, Canada, K1A 0C9. S'il est impossible d'obtenir une licence résultant d'un libre accord, il est peut être possible d'obtenir une licence obligatoire.

### Licences obligatoires

Il est possible de faire la demande d'une licence obligatoire trois ans après l'octroi d'un brevet si les droits exclusifs qui en dérivent ont donné lieu à un abus. Voir les articles 65 à 71 de la *Loi sur les brevets*. Les demandes de licence obligatoire doivent être présentées au Commissaire aux brevets.

## 7. Brevets disponibles pour licence ou vente

Un astérisque (\*) marqué à côté de tout brevet inscrit dans le présent numéro de la *Gazette du bureau des brevets*, signale qu'à compter de la date de la présente publication, ledit brevet est disponible pour octroi de licence ou vente. Une liste de ces brevets et d'autres mis en disponibilité pour octroi de licence, est publiée au no. 8 des présents avis.

## 8. Liste des brevets disponibles pour octroi de licence ou vente

Les brevets canadiens suivants ont été mis en disponibilité cette semaine pour vente ou octroi de licence :

Aucun

## 9. Applications Open to Public Inspection

All patent applications filed since October 1, 1989 and documents filed in connection therewith are open to public inspection at the Patent Office after the expiration of a confidentiality period of eighteen months beginning on the filing date of the application, or where a request for priority has been made in respect to the application, beginning on the priority date claimed. An application may become open to public inspection sooner at the request or with the approval of the applicant (Section 10(2) of the *Patent Act*). However, an application shall not be open for public inspection if it is withdrawn within the time set out in Section 92 of the *Patent Rules*. This time limit is two months before the expiry of the confidentiality period or where the Commissioner is able to stop technical preparations to open the application to the public at a subsequent date.

## 10. Language of Published Documents

When ordering a published patent, please note that the language of the document can be identified by the language code (INID [25]) EN (English) or FR (French).

## 11. Patent Cooperation Treaty (PCT) Schedule of Fees Applicable for Applications Filed on or After June 3, 2020

1. Transmittal Fee (Rule 14)	\$300
2. International Filing Fee	\$1961*
For each additional sheet over 30	\$22
3. International Search Fee	\$1600

The above mentioned fees are due at time of filing of the international application, or within one month from the international filing date (date of receipt of the international application by the receiving office). These fees are to be paid in Canadian dollars and cheques should be made payable to the Receiver General for Canada.

If the fees are not paid within one month from the international filing date, the receiving office shall invite the applicant to pay the amount required, together with a late payment fee under

## 9. Demandes mises à la disponibilité du public

Toutes les demandes de brevet et documents relatifs à ceux-ci, déposés au Bureau des brevets depuis le 1er octobre 1989, peuvent y être consultées après l'expiration de la période de confidentialité de dix-huit mois à compter de la date de dépôt de la demande de brevet ou, si une demande de priorité a été présentée à l'égard de celle-ci, de la date de dépôt sur laquelle la demande de priorité est fondée. Une demande de brevet peut être consultée avant l'expiration de la période, à la requête ou sur autorisation du demandeur (article 10(2) de la *Loi sur les brevets*). Toutefois, une demande de brevet ne pourra être consultée si celle-ci est retirée à l'intérieur du délai prévu à l'article 92 des *Règles sur les brevets*. Le délai prévu est de deux mois précédant la date d'expiration de la période de confidentialité ou, lorsque le commissaire est en mesure, à une date ultérieure, d'arrêter les préparatifs techniques en vue de la consultation de cette demande.

## 10. Langue du document publié

Toute personne intéressée à obtenir une copie d'un brevet publié doit prendre note que les codes suivants EN (Anglais) ou FR (Français) représentent (INID [25]) la langue de la copie du brevet publié.

## 11. Traité de coopération en matière de brevets (PCT) barème de taxes à partir du 3 juin 2020

1. Taxe de transmission (Règle 14)	300 \$
2. Taxe de dépôt internationale	1961 \$*
Pour chaque feuille au delà de 30	22 \$
3. Taxe de recherche internationale	1600 \$

Les taxes mentionnées ci-haut sont payables au moment du dépôt de la demande internationale, ou dans un délai d'un mois à compter de la date de dépôt international, (soit la date de réception de la demande internationale par l'office récepteur). Les taxes doivent être payées en dollars canadiens et les chèques sont payables au receveur général du Canada.

Si les taxes n'ont pas été payées dans un délai d'un mois à compter de la date de dépôt international, l'office récepteur invitera le demandeur à payer le montant dû, accompagné de la

## Notices

Rule 16bis.2, within one month from the date of the invitation. Failure to pay the fees will result in the withdrawal of the application by the receiving office.

### 4. Late payment fee

50% of the fees that are due, or,  
Minimum: Transmittal fee  
Maximum: 50% of the international filing fee

### Preliminary Examination

5. Handling fee (Rule 57.2(a)) \$295

6. Preliminary examination fee (Rule 58) \$800

\* International fees will be reduced by:

- \$295 for all applications filed electronically using PCT-SAFE or ePCT (The request in character coded format).
- \$442 for all applications filed electronically using PCT-SAFE or ePCT (The request, description, claims and abstract in character coded format).

## 12. PCT Notices

### Patent Cooperation Treaty (PCT)

Copies of the *Patent Cooperation Treaty Applicants Guide* and the *Patent Cooperation Treaty & Regulations* are available from WIPO - World Intellectual Property Organization at a cost of 200 Swiss Francs and 18 Swiss Francs, respectively.

Those wishing for further information including prices for both previous and current subscriptions should contact WIPO at:

Information Products Section  
Post Office Box 18  
1211 Geneva 20 Switzerland  
Telephone (011 41 22) 338-9618  
Facsimile (011 41 22) 740-1812

or by "E-mail" ([publications.mail@wipo.int](mailto:publications.mail@wipo.int)) or visit their Web site ([www.wipo.int](http://www.wipo.int)).

taxe pour le paiement tardif visée à la règle 16bis.2, dans un délai d'un mois à compter de l'invitation. Si vous omettez de payer les taxes, l'office récepteur retirera votre demande.

### 4. Taxe pour paiement tardif

50% du montant impayé, ou,  
Minimum : taxe de transmission  
Maximum : 50% de la taxe de dépôt international

### Examen préliminaire

5. Taxe de traitement (Règle 57.2a) 295 \$

6. Taxe d'examen préliminaire (Règle 58) 800 \$

\* Les frais seront réduits de:

- 295 \$ pour toutes les demandes déposées en utilisant PCT-SAFE ou ePCT (La requête étant en format à codage de caractères).
- 442 \$ pour toutes les demandes déposées en utilisant PCT-SAFE ou ePCT (La requête, la description, les revendications et l'abrégé étant en format à codage de caractères).

## 12. Avis PCT

### Traité de Coopération en matière de brevets (PCT)

Des copies du *Guide du déposant du PCT* ainsi que du *Traité et des Règlements* sont disponibles auprès de l'OMPI - Organisation mondiale de la propriété intellectuelle au coût de 200 francs suisses et 18 francs suisses, respectivement.

Les personnes qui désirent obtenir de plus amples renseignements, notamment sur le prix des abonnements antérieurs et courants, sont priées de s'adresser directement à :

l'OMPI à la Section des produits d'information  
Boîte postale 18  
1211 Genève 20 Suisse  
Téléphone (011 41 22) 338-9618  
Télécopieur (011 41 22) 740-1812

ou par courriel ([publications.mail@wipo.int](mailto:publications.mail@wipo.int)) ou visiter leur site Web ([www.wipo.int](http://www.wipo.int)).



### 13. Practice Notice

#### LIMITED PARTNERSHIPS CAN BE ENTERED ON THE REGISTER OF AGENTS AND ON THE LIST OF TRADE-MARK AGENTS

**Note:** *This practice notice is intended to provide guidance on current Patent and Trade-marks Office practice and interpretation of relevant legislation. However, in the event of any inconsistency between this notice and the applicable legislation, the legislation must be followed.*

The Patent Office and the Trade-marks Office (hereinafter jointly referred to as “the Offices”) have been receiving inquiries as to whether limited partnerships are entitled to act as patent and trade-mark agents before the Offices.

With respect to the register of patent agents, section 15 of the *Patent Act* provides that a register of patent agents shall be kept in the Patent Office on which shall be entered the names of all persons and firms entitled to represent applicants in the presentation and prosecution of applications for patents or in other business before the Patent Office. Section 2 of the *Patent Rules* stipulates that the expression “patent agent” means any person or firm whose name is entered on the register of patent agents pursuant to section 15. Paragraph 15(c) of the *Patent Rules* provides that the Commissioner shall enter on the register of patent agents, on payment of the fee set out in item 33 of Schedule II, the name of **any firm, if the name of at least one member of the firm is entered on the register.**

With respect to the list of trade-mark agents, subsection 28(2) of the *Trade-marks Act* provides that the list of trade-mark agents shall include the names of all persons and firms entitled to represent applicants in the presentation and prosecution of applications for the registration of a trade-mark or in other business before the Trade-marks Office. Paragraph 21(d) of the *Trade-mark Regulations* (1996) stipulates that the Registrar shall, on written request and payment of the fee set out in item 19 of the schedule, enter on a list of trade-mark agents the name of **any firm having the name of at least one of its members entered on the list as a trade-mark agent.**

Both the patent and trade-mark legislation therefore provide that firms may act as agents before the Offices, as long as one of their members is entered on the register or list of agents. It is generally recognised that the term “firm” includes partnerships, and the Offices have already allowed general partnerships and limited liability partnerships to be entered on the register or list of agents. The Offices consider that limited partnerships are also firms, and that they are entitled to act as agents before the

### 13. Énoncé de pratique

#### LES SOCIÉTÉS EN COMMANDITE PEUVENT ÊTRE INSCRITES AU REGISTRE DES AGENTS DE BREVETS ET SUR LA LISTE DES AGENTS DE MARQUES DE COMMERCE

**Nota :** *Le présent énoncé de pratique a pour but de préciser les pratiques actuelles du Bureau des brevets et du Bureau des marques de commerce et l'interprétation faite par ces derniers de certaines dispositions législatives. Toutefois, en cas de divergence entre le présent énoncé et la législation applicable, c'est la législation qui prévaudra.*

Le Bureau des brevets et le Bureau des marques de commerce (ci-après appelés conjointement « les Bureaux ») ont reçu des questions à savoir si les sociétés en commandite (en anglais « limited partnerships ») ont le droit d'agir en tant qu'agents de brevets et de marques de commerce auprès des Bureaux.

En ce qui concerne le registre des agents de brevets, l'article 15 de la *Loi sur les brevets* prévoit qu'un registre des agents de brevets est tenu au Bureau des brevets sur lequel sont inscrits les noms de toutes les personnes et entreprises ayant le droit de représenter les demandeurs dans la présentation et la poursuite des demandes de brevet ou dans toute autre affaire devant le Bureau des brevets. Aux termes de l'article 2 des *Règles sur les brevets*, « agent de brevets » s'entend de toute personne ou maison d'affaires dont le nom est inscrit au registre des agents de brevets aux termes de l'article 15. L'alinéa 15c) des *Règles sur les brevets* prévoit que le commissaire inscrit au registre des agents de brevets, moyennant paiement de la taxe prévue à l'article 33 de l'annexe II, le nom de **toute maison d'affaires dont le nom d'au moins un membre est inscrit au registre des agents de brevets.**

En ce qui concerne la liste des agents de marques de commerce, le paragraphe 28(2) de la *Loi sur les marques de commerce* prévoit que la liste des agents de marques de commerce comporte les noms des personnes et études habilitées à représenter les intéressés dans la présentation et la poursuite des demandes d'enregistrement des marques de commerce et de toute affaire devant le Bureau des marques de commerce. Aux termes de l'alinéa 21d) du *Règlement sur les marques de commerce* (1996), le registraire, sur demande écrite et sur paiement du droit prévu à l'article 19 de l'annexe, inscrit sur la liste des agents de marques de commerce le nom de **toute firme dont le nom d'au moins un membre est inscrit sur la liste à titre d'agent de marques de commerce.**

La législation actuelle sur les brevets et celle sur les marques de commerce prévoient donc que des firmes peuvent agir en tant qu'agents auprès des Bureaux, à condition que l'un de leurs membres soit inscrit au registre ou à la liste des agents. Il est généralement admis que le terme « firme » inclut les sociétés (en anglais « partnerships ») et les Bureaux ont déjà autorisé des sociétés en nom collectif (en anglais « general partnerships ») ainsi que des sociétés à responsabilité limitée

## Notices

Offices.

Therefore, commencing immediately, the Offices will enter upon request, on the register or list of agents, limited partnerships that otherwise meet the requirements set out in the patent and trade-mark legislation.

The Offices, however, continue to consider that the current patent and trade-mark legislation do not allow corporations to be entered on the register or list of agents, since corporations do not have members and therefore cannot meet the requirements set out in paragraph 15(c) of the *Patent Rules* and paragraph 21(d) of the *Trade-mark Regulations* (1996).

## 14. Correspondence Procedures

The correspondence procedures and the related practice for written communications to the Commissioner of Patents and the Patent Office under the Patent Act and the Patent Rules is outlined in Chapter 2 of the Manual of Patent Office Practice (MOPOP).

Web Link for MOPOP:

[http://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/eng/h\\_wr00720.html](http://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/eng/h_wr00720.html)

The correspondence procedures and the related practice of written communications with respect to Trademarks and to Industrial Design can be found in the Practice Notice entitled [Correspondence Procedures](#), available on CIPO's website.

CIPO Web Link for correspondence procedures pertaining to Trademarks and Industrial Design:

<https://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/eng/wr00633.html>

Publication date: May 10, 2017

Amendment date: June 17, 2019

### On this page:

1. Physical Delivery of Correspondence and Written Communications to CIPO
2. Electronic Correspondence
3. Details Concerning the Electronic Formats Accepted
4. General Information
5. Time Period Extensions
6. Procedures in Case of an Unexpected Office Closure at CIPO

(en anglais « limited liability partnerships ») à être inscrites au registre ou à la liste des agents. Les Bureaux considèrent que les sociétés en commandite sont aussi des firmes et qu'elles ont le droit d'agir en tant qu'agents auprès des Bureaux.

En conséquence, sur demande, les Bureaux inscriront désormais au registre, ou à la liste des agents, les sociétés en commandite qui répondent aux exigences de la *Loi sur les brevets et de la Loi sur les marques de commerce*.

Les Bureaux continuent toutefois de considérer que la législation actuelle sur les brevets et les marques de commerce ne permet pas aux compagnies (en anglais « corporations ») d'être inscrites au registre ou à la liste des agents, étant donné que les compagnies n'ont pas de membres et ne peuvent donc pas satisfaire aux exigences de l'alinéa 15c) des *Règles sur les brevets* et de l'alinéa 21d) du *Règlement sur les marques de commerce* (1996).

## 14. Procédures de correspondance

Les procédures de correspondance et les pratiques connexes de communication écrite au commissaire aux brevets ou au Bureau des brevets en vertu de la Loi sur les brevets et des Règles sur les brevets seront exposées dans le chapitre 2 du Recueil des pratiques du Bureau des brevets (RPBB).

Lien Web pour le RPBB :

[http://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/fra/h\\_wr00720.html](http://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/fra/h_wr00720.html)

Les procédures de correspondance et les pratiques connexes de communication écrite concernant les marques de commerce et les dessins industriels se trouvent dans le document intitulé [Procédures de correspondance](#), consultable sur le site Web de l'OPIC.

Lien Web de l'OPIC pour les procédures de correspondance relatives aux marques de commerce et aux dessins industriels :

<https://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/fra/wr00633.html>

Date de publication : 10 mai 2017

Date de modification : 17 juin 2019

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7. Procédures à suivre lorsque l'Office est ouvert au public, mais les clients sont incapables de communiquer avec l'Office
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This notice is intended to clarify the practice of the Canadian Intellectual Property Office with respect to correspondence procedures and written communications and replaces all previous notices.

Le présent énoncé de pratique a pour but de préciser la pratique de l'Office de la propriété intellectuelle du Canada relativement aux procédures de correspondance et de communications écrites et remplace tout avis antérieur.

### 1. Physical Delivery of Correspondence and Written Communications to CIPO

For the purposes of sections 5 and 54 of the Patent Rules, subsection 10(1) of the Trademarks Regulations, section 2 of the Copyright Regulations, section 4 of the Industrial Design Regulations and section 3 of the Integrated Circuit Topography Regulations, the address of the Patent Office, the Office of the Registrar of Trademarks, the Copyright Office, the Industrial Design Office, and the Office of the Registrar of Topographies (hereinafter sometimes collectively referred to as "CIPO") is:

Canadian Intellectual Property Office  
Place du Portage I  
50 Victoria Street, Room C-114  
Gatineau QC K1A 0C9

In accordance with subsections 5(2), 5(3), 54(1) and 54(2) of the Patent Rules, subsection 10(2) of the Trademarks Regulations, subsections 2(2) and (3) of the Copyright Regulations, subsection 5(1) of the Industrial Design Regulations and subsections 3(2) and (3) of the Integrated Circuit Topography Regulations, correspondence and written communications delivered to the above address between 8:30 a.m. to 4:30 p.m. (Eastern Time) Monday to Friday is deemed to have been received on the actual date of their delivery if they are delivered when CIPO is open to the public.

Correspondence delivered at a time when CIPO is closed to the public will be deemed or considered to have been received on the day on which CIPO is next open to the public.

Please be advised that once correspondence is received by CIPO it cannot be returned to the sender, even if the sender states that the correspondence was sent by mistake. Exceptionally, in cases where correspondence is related to a patent application that does not meet the requirements under subsection 27.1(1) of the Patent Act for obtaining a filing date, the documents will be returned to the sender.

The Fee Payment Form should always be submitted as a covering document and should be the only document submitted

### 1. Remise physique de correspondance et communications écrites à l'OPIC

Pour l'application des articles 5 et 54 des Règles sur les brevets, du paragraphe 10(1) du Règlement sur les marques de commerce, de l'article 2 du Règlement sur le droit d'auteur, de l'article 4 du Règlement sur les dessins industriels et de l'article 3 du Règlement sur les topographies de circuits intégrés, l'adresse du Bureau des brevets, du Bureau du registraire des marques de commerce, du Bureau du droit d'auteur, du Bureau des dessins industriels, et du Bureau du registraire des topographies (ci-après parfois collectivement appelés « OPIC ») est la suivante :

Office de la propriété intellectuelle du Canada  
Place du Portage I  
50, rue Victoria, pièce C-114  
Gatineau (Québec) K1A 0C9

Conformément aux paragraphes 5(2), 5(3), 54(1) et 54(2) des Règles sur les brevets, du paragraphe 10(2) du Règlement sur les marques de commerce, des paragraphes 2(2) et (3) du Règlement sur le droit d'auteur, du paragraphe 5(1) du Règlement sur les dessins industriels et des paragraphes 3(2) et (3) du Règlement sur les topographies de circuits intégrés, la correspondance et les communications écrites ayant été remises à l'adresse ci-dessus entre 8h30 et 16h30 (Heure de l'Est) du lundi au vendredi seront réputées avoir été reçues le jour de leur remise, si elles sont remises alors que l'OPIC est ouvert au public.

La correspondance remise lorsque les bureaux de l'OPIC sont fermés au public sera réputée avoir été reçue le jour de la réouverture de l'OPIC au public.

Veuillez prendre note qu'une fois que l'OPIC reçoit de la correspondance, celle-ci ne peut pas être retournée à l'expéditeur, même si l'expéditeur indique que la correspondance a été envoyée par erreur. Exceptionnellement, dans le cas où la correspondance vise une demande de brevet qui ne rencontre pas les exigences du paragraphe 27.1(1) de la Loi sur les brevets pour l'obtention d'une date de dépôt, les documents seront retournés à l'expéditeur.

Le formulaire de paiements des frais devrait toujours être

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to CIPO that contains financial information, such as credit card numbers.

Download the [Fee Payment Form](#).

### 1.1 Designated Establishments

For the purposes of subsections 5(4) and 54(3) of the Patent Rules, subsection 10(1) of the Trademarks Regulations, subsection 2(4) of the Copyright Regulations, section 4 of the Industrial Design Regulations and subsection 3(4) of the Integrated Circuit Topography Regulations, the following are the designated establishments or designated offices to which correspondence addressed to the Commissioner of Patents, the Registrar of Trademarks, the Copyright Office, the Industrial Design Office or the Registrar of Topographies may be delivered **in person**. Please note that documents, payments and payment instructions delivered to the addresses listed below **must be enclosed in a sealed envelope** and that **no in person payment transactions** are processed on site. The ordinary business hours for each designated establishment are listed below.

- Innovation, Science and Economic Development  
Canada  
C.D. Howe Building  
235 Queen Street, Room S-143  
Ottawa ON K1A 0H5  
Tel.: 343-291-3436

8:30 a.m. to 4:30 p.m. (local time) Monday to Friday,  
except statutory holidays

- Innovation, Science and Economic Development  
Canada  
Sun Life Building  
1155 Metcalfe Street, Room 950  
Montreal QC H3B 2V6  
Tel.: 514-496-1797  
Toll-free: 1-888-237-3037

8:30 a.m. to 4:30 p.m. (local time) Monday to Friday,  
except statutory holidays

- Innovation, Science and Economic Development  
Canada  
151 Yonge Street, 4th Floor  
Toronto ON M5C 2W7  
Tel.: 416-973-5000

8:30 a.m. to 4:30 p.m. (local time) Monday to Friday,

fourni comme page couverture et devrait être le seul document soumis à l'OPIIC contenant de l'information financière telle que les numéros de carte de crédit.

Téléchargez le [formulaire de paiement des frais](#).

### 1.1 Établissements désignés

Pour l'application des paragraphes 5(4) et 54(3) des Règles sur les brevets, du paragraphe 10(1) du Règlement sur les marques de commerce, du paragraphe 2(4) du Règlement sur le droit d'auteur, de l'article 4 du Règlement sur les dessins industriels et du paragraphe 3(4) du Règlement sur les topographies de circuits intégrés, la correspondance adressée au commissaire aux brevets, au registraire des marques de commerce, au Bureau du droit d'auteur, au Bureau des dessins industriels ou au registraire des topographies peut être remise **en personne** aux établissements ou bureaux désignés suivants. Veuillez prendre note que les documents, paiements et instructions de paiements remis aux adresses énumérées ci-dessous doivent être **inclus dans une enveloppe scellée** et qu'**aucune transaction de paiement en personne** n'est traitée sur place. Les heures normales d'ouverture pour chaque établissement désigné sont indiquées ci-dessous.

- Innovation, Sciences et Développement économique  
Canada  
Édifice C.D. Howe  
235, rue Queen, pièce S-143  
Ottawa (Ontario) K1A 0H5  
Tél. : 343-291-3436

8 h 30 à 16 h 30 (heure locale) du lundi au vendredi, à  
l'exception des jours fériés

- Innovation, Sciences et Développement économique  
Canada  
Édifice Sun Life  
1155, rue Metcalfe, bureau 950  
Montréal (Québec) H3B 2V6  
Tél. : 514-496-1797  
Sans frais : 1-888-237-3037

8 h 30 à 16 h 30 (heure locale) du lundi au vendredi, à  
l'exception des jours fériés

- Innovation, Sciences et Développement économique  
Canada  
151, rue Yonge, 4e étage  
Toronto (Ontario) M5C 2W7  
Tél. : 416-973-5000

8 h 30 à 16 h 30 (heure locale) du lundi au vendredi, à

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except statutory holiday

l'exception des jours fériés

- Innovation, Science and Economic Development  
Canada  
Canada Place  
9700 Jasper Avenue, Suite 725  
Edmonton AB T5J 4C3  
Tel.: 780-495-4782  
Toll-free: 1-800-461-2646

- Innovation, Sciences et Développement économique  
Canada  
Canada Place  
9700, avenue Jasper, pièce 725  
Edmonton (Alberta) T5J 4C3  
Tél. : 780-495-4782  
Sans frais : 1-800-461-2646

8:30 a.m. to 4:30 p.m. (local time) Monday to Friday,  
except statutory holidays

8 h 30 à 16 h 30 (heure locale) du lundi au vendredi, à  
l'exception des jours fériés

- Innovation, Science and Economic Development  
Canada  
Library Square  
300 West Georgia Street, Suite 2000  
Vancouver BC V6B 6E1  
Tel.: 604-666-5000

- Innovation, Sciences et Développement économique  
Canada  
Library Square  
300, rue Georgia Ouest, pièce 2000  
Vancouver (C.-B.) V6B 6E1  
Tél. : 604-666-5000

8:30 a.m. to 4:30 p.m. (local time) Monday to Friday,  
except statutory holidays

8 h 30 à 16 h 30 (heure locale) du lundi au vendredi, à  
l'exception des jours fériés

In accordance with subsections 5(4), 5(5), 54(3) and 54(4) of the Patent Rules, subsection 10(3) of the Trademarks Regulations, subsections 2(4) and (5) of the Copyright Regulations, subsection 5(2) of the Industrial Design Regulations and subsections 3(4) and (5) of the Integrated Circuit Topography Regulations, correspondence delivered to a designated establishment on a day when CIPO is open to the public will be deemed or considered to be received on the day on which they are delivered to that designated establishment. If CIPO is closed to the public, correspondence will be deemed or considered to be received on the day on which CIPO is next open to the public. For example, if correspondence intended for CIPO is delivered to the designated establishment in Toronto on June 24, it will not be considered to be received on June 24 as CIPO is closed on that day (St-Jean-Baptiste Holiday in Quebec). It will be deemed received on the day on which CIPO is next open to the public.

Conformément aux paragraphes 5(4), 5(5), 54(3) et 54(4) des Règles sur les brevets, au paragraphe 10(3) du Règlement sur les marques de commerce, aux paragraphes 2(4) et (5) du Règlement sur le droit d'auteur, au paragraphe 5(2) du Règlement sur les dessins industriels et aux paragraphes 3(4) et (5) du Règlement sur les topographies de circuits intégrés, la correspondance remise à l'un des établissements désignés susmentionnés lorsque les bureaux de l'OPIC sont ouverts au public sera réputée ou considérée avoir été reçue le jour de leur remise à cet établissement désigné. Si les bureaux de l'OPIC sont fermés au public, la correspondance sera réputée ou considérée avoir été reçue à le jour de la réouverture de l'OPIC au public. Par exemple, la correspondance adressée à l'OPIC remise à l'établissement désigné de Toronto le 24 juin ne sera pas considérée avoir été reçue le 24 juin puisque les bureaux de l'OPIC sont fermés ce jour-là (la Saint-Jean Baptiste est un jour férié au Québec). La correspondance sera alors réputée avoir été reçue le jour de la réouverture des bureaux de l'OPIC au public.

### 1.2. Registered Mail™ and Xpresspost™ services of Canada Post

For the purposes of subsections 5(4) and 54(3) of the Patent Rules, subsection 3(4) of the Trade-marks Regulations, subsection 2(4) of the Copyright Regulations, subsection 3(4) of the Industrial Design Regulations and subsection 3(4) of the Integrated Circuit Topography Regulations, the Registered Mail™ and Xpresspost™ services of Canada Post are designated establishments or designated offices to which

### 1.2. Services Courrier recommandé<sup>MC</sup> et Xpresspost<sup>MC</sup> de Postes Canada

Pour l'application des paragraphes 5(4) et 54(3) des Règles sur les brevets, du paragraphe 10(1) du Règlement sur les marques de commerce, du paragraphe 2(4) du Règlement sur le droit d'auteur, de l'article 4 du Règlement sur les dessins industriels et du paragraphe 3(4) du Règlement sur les topographies de circuits intégrés, les services Courrier recommandé<sup>MC</sup> et Xpresspost<sup>MC</sup> de Postes Canada sont des établissements ou des

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correspondence addressed to the Commissioner of Patents, the Registrar of Trade-marks, the Copyright Office or the Registrar of Topographies may be delivered.

CIPO considers that correspondence delivered through the Registered Mail™ and Xpresspost™ services of Canada Post is received by CIPO on the day indicated on the mailing receipt provided by Canada Post, or if CIPO is closed for business on that day, on the day when CIPO is next open for business.

### 2. Electronic Correspondence

For the purposes of section 8.1 of the Patent Act, subsection 64(1) of the Trademarks Act, subsection 24.1(1) of the Industrial Design Act and in accordance with subsections 5(6), 54(5), and 68(3) of the Patent Rules, subsection 10(4) of the Trademarks Regulations, subsection 2(6) of the Copyright Regulations, subsection 10(3) of the Industrial Design Regulations, and subsection 3(6) of the Integrated Circuit Topography Regulations, correspondence addressed to the Commissioner of Patents, the Registrar of Trademarks, the Copyright Office, the Industrial Design Office or the Registrar of Topographies may be sent by facsimile, online or on an electronic medium only as provided in the current notice.

In accordance with subsection 54(5) of the Patent Rules, the request for national entry is the only correspondence addressed to the Commissioner in respect of an international application that can be submitted online or on an electronic medium with the exception of sequence listings, applications prepared using the PCT-SAFE software or prepared using WIPO's ePCT online service as specified in the current notice. Other correspondence submitted online or on an electronic medium in respect of international applications that have not entered the national phase will not be accepted.

Subsection 10(5) of the Trademarks Regulations specifies certain categories of correspondence to which the provisions of subsection 10(4) do not apply.

Correspondence sent by facsimile or online to the Commissioner of Patents, the Registrar of Trademarks, the Copyright Office, the Industrial Design Office or the Registrar of Topographies constitutes the original, therefore a duplicate paper copy should not be forwarded.

Correspondence delivered to the Commissioner of Patents by electronic means of transmission, including facsimile, will be considered to be received on the day that it is transmitted if delivered and received before midnight local time at CIPO on a day when CIPO is open for business. When CIPO is closed for business, correspondence delivered on that day will be considered to be received on the next day on which CIPO is

bureaux désignés auxquels la correspondance adressée au commissaire aux brevets, au registraire des marques de commerce, au Bureau du droit d'auteur, au Bureau des dessins industriels ou au registraire des topographies peut être remise.

L'OPIC considère que la correspondance remise par l'entremise des services Courrier recommandé<sup>MC</sup> et Xpresspost<sup>MC</sup> de Postes Canada sont reçus par l'OPIC le jour indiqué sur le reçu de confirmation de Postes Canada, en autant que l'OPIC soit ouvert au public ce jour-là. Si l'OPIC est fermé au public ce jour-là, la correspondance sera réputée ou considérée avoir été reçue le jour de réouverture de l'OPIC au public.

### 2. Correspondance électronique

Pour l'application de l'article 8.1 de la Loi sur les brevets, du paragraphe 64(1) de la Loi sur les marques de commerce, du paragraphe 24.1(1) de la Loi sur les dessins industriels, et conformément aux paragraphes 5(6), 54(5) et 68(3) des Règles sur les brevets, au paragraphe 10(4) du Règlement sur les marques de commerce, au paragraphe 2(6) du Règlement sur le droit d'auteur, au paragraphe 10(3) du Règlement sur les dessins industriels et au paragraphe 3(6) du Règlement sur les topographies de circuits intégrés, la correspondance adressée au commissaire aux brevets, au registraire des marques de commerce, au Bureau du droit d'auteur, au Bureau des dessins industriels ou au registraire des topographies peut être transmise par télécopieur, en ligne ou à l'aide d'un support électronique et ce, seulement de la manière indiquée dans le présent énoncé.

Conformément au paragraphe 54(5) des Règles sur les brevets, la demande d'entrée en phase nationale d'une demande internationale est la seule correspondance adressée au commissaire qui peut être présentée en ligne ou sur support électronique, à l'exception des listages de séquences, des demandes préparées à l'aide du logiciel PCT-SAFE ou préparées à l'aide du service en ligne ePCT de l'OMPI, tel qu'indiqué dans le présent avis. Toute autre correspondance présentée en ligne ou sur support électronique relativement à des demandes internationales qui ne sont pas entrées dans la phase nationale ne sera pas acceptée.

Le paragraphe 10(5) du Règlement sur les marques de commerce prévoit certaines catégories de correspondance auxquelles les dispositions du paragraphe 10(4) ne s'appliquent pas.

La correspondance envoyée par télécopieur ou en ligne au commissaire aux brevets, au registraire des marques de commerce, au Bureau du droit d'auteur, au Bureau des dessins industriels ou au registraire des topographies constitue une version originale. Par conséquent, un duplicata sur support papier ne devrait pas être expédié.

La correspondance livrée au commissaire aux brevets et reçue par voie électronique, y compris par télécopieur, est considérée comme ayant été reçue à l'OPIC le jour même de sa transmission, si elle est livrée avant minuit, heure locale,

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open for business.

Correspondence delivered to the Registrar of Trademarks or the Industrial Design Office by electronic means of transmission, including facsimile, is deemed to have been received on the day on which CIPO receives it (Eastern Time).

### 2.1 Facsimile

Black and white facsimile correspondence addressed to the Commissioner of Patents, the Registrar of Trademarks, the Copyright Office, the Industrial Design Office or the Registrar of Topographies may be sent to the following facsimile numbers:

(819) 953-CIPO (2476) or (819) 953-OPIC (6742)

Colour facsimile correspondence addressed to the Registrar of Trademarks or the Industrial Design Office **must** be sent to the following facsimile number:

(819) 934-3833

Note that the model of facsimile is a Xerox C505/X and that this information may be needed to ensure a successful colour transmission.

Facsimile correspondence that is sent to any facsimile number other than those indicated above, including those of a designated establishment, will be considered not to have been received.

Evidence submitted by facsimile in respect of an opposition or section 45 proceeding **will not be accepted** due to issues such as the often-poor quality of transmission, the risk of incomplete transmission and the voluminous nature of the documents.

The electronic transmittal report returned to you following your facsimile transmission will constitute your acknowledgment receipt. Confidentiality of the facsimile transmission process cannot be guaranteed. Please note that CIPO strongly discourages the use of a computer facsimile interface or internet-based facsimile services due to technical issues with reception.

When submitting by facsimile a document that also has a fee requirement, notification of the preferred mode of payment to be applied must be prominently displayed on the Fee Payment Form to ensure expedient processing.

lorsque les bureaux de l'OPIC sont ouverts au public. Si elle est transmise un jour où les bureaux de l'OPIC sont fermés au public, elle est considérée comme ayant été reçue à la date du jour d'ouverture suivant de l'OPIC.

La correspondance fournie au registraire des marques de commerce ou transmise au Bureau des dessins industriels par voie électronique, y compris par télécopieur, est réputée avoir été reçue le jour où l'OPIC l'a reçue (Heure de l'Est).

### 2.1 Correspondance par télécopieur

La correspondance en noir et blanc par télécopieur adressée au commissaire aux brevets, au registraire des marques de commerce, au Bureau du droit d'auteur, au Bureau des dessins industriels ou au registraire des topographies peut être transmise aux numéros ci-dessous :

819-953-OPIC (6742) ou 819-953-CIPO (2476)

La correspondance en couleur par télécopieur (modèle : Xerox C505/X) adressée au registraire des marques de commerce ou au Bureau des dessins industriels doit être transmise au numéro ci-dessous :

(819) 934-3833

À noter que le modèle de télécopieur est un Xerox C505/X; information qui peut être nécessaire afin de compléter une transmission en couleur.

La correspondance qui est transmise par télécopieur à tout autre numéro de télécopieur que ceux qui sont indiqués ci-dessus, y compris ceux d'établissements désignés, sera considérée comme n'ayant pas été reçue.

Les éléments de preuve présentés par télécopieur dans le cadre d'une procédure d'opposition ou de radiation en vertu de l'article 45 de la Loi **ne seront pas acceptés** en raison des inconvénients reliés à la mauvaise qualité de la transmission, au risque que la transmission soit incomplète et à la nature volumineuse de ces documents.

Le rapport de transmission électronique que vous recevrez après votre transmission par télécopieur constituera votre accusé de réception. La confidentialité du processus de transmission électronique ne peut pas être garantie. Veuillez noter que l'OPIC décourage fortement l'utilisation d'une interface de télécopie par ordinateur ou de services de télécopie par le biais d'internet étant donné les problèmes techniques probables avec la réception.

Lors de la transmission par télécopieur d'un document comprenant une demande d'acquiescement de droit ou taxe, il faut clairement indiquer le mode de paiement préféré sur le formulaire de paiements des frais afin d'assurer un traitement rapide.

## Notices

### Patents

The document presentation requirements set out in sections 69 and 70 of the Patent Rules apply to facsimile correspondence.

### 2.2 Online

Correspondence addressed to the Commissioner of Patents, the Registrar of Trade-marks, the Copyright Office or the Registrar of Topographies may be sent electronically using the relevant links below.

### Patents

For the purpose of subsection 5(6) of the Patent Rules, correspondence addressed to the Commissioner may be sent electronically by accessing the following pages:

- [filing an application](#) (regular application);
- [filing a request for national entry](#);
- [filing an international application](#) (PCT Safe or ePCT);
- [general correspondence relating to applications and patents](#);
- [maintaining the name of a patent agent on the register of patent agents](#); and
- [ordering copies in paper, or electronic form of a document](#).

### Canada as Receiving Office Under the PCT: PCT-SAFE

Pursuant to PCT Rule 89bis, CIPO, in its role as a receiving Office, accepts the electronic filing of an international application prepared using the latest version of the WIPO's PCT-Safe software and applications prepared using WIPO's ePCT online service. Filing in both cases must be done using CIPO's International Filing e-service, called [PCT E-Filing](#).

**Note:** Correspondence related to PCT international applications can not be sent electronically to CIPO. Correspondence may be sent by mail, by facsimile or delivered by hand to CIPO or to a [designated establishment](#).

### Trademarks

For the purpose of subsection 10(4) of the Trademarks Regulations, the following correspondence addressed to the Registrar of Trademarks may be sent electronically by

### Brevets

Les exigences relatives à la présentation des documents énoncées aux articles 69 et 70 des Règles sur les brevets s'appliquent à la correspondance par télécopieur.

### 2.2 En ligne

La correspondance adressée au commissaire aux brevets, au registraire des marques de commerce, au Bureau du droit d'auteur ou au registraire des topographies peut être transmise par voie électronique.

### Brevets

Pour l'application du paragraphe 5(6) des Règles sur les brevets, la correspondance adressée au commissaire peut être envoyée par voie électronique, notamment en accédant aux pages suivantes :

- [déposer une demande](#) (demande régulière);
- [déposer une demande d'entrée dans la phase nationale](#);
- [déposer une demande internationale](#) (PCT Safe ou ePCT);
- [correspondance générale concernant des demandes et des brevets](#);
- [maintien du nom d'un agent de brevets dans le registre des agents de brevets](#);
- [commande de copies papier ou d'un document sous forme électronique](#).

### Le Canada comme office récepteur au titre du PCT : PCT-SAFE et ePCT

Conformément à la Règle 89bis du PCT, l'OPIC, à titre d'office récepteur, accepte le dépôt d'une demande internationale préparée à l'aide de la plus récente version du logiciel PCT-SAFE de l'OMPI, et d'une demande préparée à l'aide du service en ligne ePCT de l'OMPI. Dans les deux cas, le dépôt doit se faire à l'aide du service électronique de dépôt de demandes internationales de l'OPIC, appelé [Dépôt en ligne de demandes PCT](#).

**Note:** La correspondance liée aux demandes internationales PCT ne peut être envoyée par voie électronique à l'OPIC. La correspondance peut être envoyée par courrier, par télécopieur ou remis en mains à l'OPIC ou à un [établissement désigné](#).

### Marques de commerce

Pour l'application du paragraphe 10(4) du Règlement sur les marques de commerce, la correspondance adressée au registraire des marques de commerce peut être envoyés par voie électronique, notamment en accédant aux pages suivantes



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accessing the following pages:

- [filing a new or revised trademark application](#);
- [renewal of a trademark registration](#);
- [request to enter a name on the list of trademark agents](#);
- [annual renewal of a trademark agent](#);
- [requesting copies of trademark documents](#);
- [registration of a trademark application](#);

For the purpose of subsection 10(4) of the Trademarks Regulations, correspondence addressed to the Registrar of Trademarks in the context of opposition and section 45 proceedings may be sent electronically by accessing the [Trademarks Opposition Board's online web application](#):

### *Opposition proceedings before the Trademarks Opposition Board*

- filing a statement of opposition;
- filing of a counter statement;
- submission of the opponent's evidence, or statement;
- submission of the applicant's evidence, or statement;
- submission of the opponent's reply evidence;
- submission of the opponent's written representations, or statement;
- submission of the applicant's written representations, or statement;
- filing a request for a hearing; and
- requesting an extension of time.

### *Section 45 proceedings before the Trademarks Opposition Board*

- filing a request for a section 45 notice;
- submission of the registered owner's evidence;
- submission of the requesting party's written representations, or statement;
- submission of the registered owner's written representations, or statement;
- filing a request for a hearing; and
- requesting an extension of time.

## Copyright

:

- [nouvelle demande ou demande modifiée d'enregistrement de marque de commerce](#);
- [renouvellement de l'enregistrement d'une marque de commerce](#);
- [demande d'inscription d'un nom à la liste des agents de marques de commerce](#);
- [renouvellement annuel d'un agent de marques de commerce](#);
- [commande de copies de documents de marques de commerce](#);
- [l'enregistrement d'une marque de commerce](#)

Pour l'application du paragraphe 10(4) du Règlement sur les marques de commerce, la correspondance adressée au registraire des marques de commerce dans le cadre des procédures d'opposition ou de radiation en vertu de l'article 45 peut être envoyée par voie électronique en accédant à [l'application web en ligne de la Commission des oppositions des marques de commerce](#).

### *Procédures d'opposition devant la Commission des oppositions des marques de commerce*

- production d'une déclaration d'opposition;
- Production d'une contre-déclaration d'opposition;
- Production de la preuve de l'opposant, ou d'une déclaration;
- Production de la preuve du requérant, ou d'une déclaration;
- Production de la contre-preuve de l'opposant;
- Production des arguments écrits de l'opposant, ou déclarations;
- Soumission des arguments écrits du requérant, ou déclarations;
- Produire une demande pour une audience; et
- demande de prolongation de délai.

### *Procédures en vertu de l'article 45 devant la Commission des oppositions des marques de commerce*

- Production d'une demande pour un avis en vertu de l'article 45;
- Production de la preuve du propriétaire inscrit;
- Production des arguments écrits de la demanderesse, ou déclaration;
- Production des arguments écrits du propriétaire inscrit, ou déclaration;
- Produire une demande pour une audience; et
- Demande de prolongation de délai.

## Droits d'auteur

## Notices

For the purpose of subsection 2(6) of the Copyright Regulations, the following correspondence addressed to the Copyright Office may be sent electronically, by accessing the following pages:

- [application for registration of a copyright in a work](#),
- [application for registration of a copyright in a performer's performance, sound recording or a communication signal](#);
- [filing a grant of interest](#);
- [request for certificate of correction](#);
- [ordering copies in paper, or electronic form of a document](#); and
- [general correspondence relating to copyright](#).

## Industrial Designs

For the purpose of subsection 24.1(1) of the Industrial Design Act, the following correspondence addressed to the Industrial Design Office may be sent electronically, by accessing the following pages:

- [application for registration of an industrial design](#);
- [ordering copies in paper, or electronic form of a document](#);
- [general correspondence relating to industrial designs](#); and
- [payment of industrial design maintenance fees](#).

## Integrated Circuit Topographies

For the purpose of subsection 3(6) of the Integrated Circuit Topography Regulations, the following correspondence addressed to the Registrar of Topographies may be sent electronically, by accessing the following page:

- [general correspondence relating to integrated circuit topographies](#).

### 2.3 Electronic medium

**Note:** all electronic media must be free of worms, viruses or other malicious content. Files with malicious content will be deleted.

Pour l'application du paragraphe 2(6) du Règlement sur le droit d'auteur, la correspondance indiquée ci-dessous qui est adressée au Bureau du droit d'auteur peut être transmise par voie électronique, notamment en accédant aux pages suivantes :

- [demande d'enregistrement d'un droit d'auteur sur une œuvre](#),
- [demande d'enregistrement d'un droit d'auteur sur une prestation, un enregistrement sonore ou un signal de communication](#);
- [dépôt d'une concession d'intérêt](#);
- [demande de certificat de correction](#);
- [commande de copies des documents papier ou électroniques](#) et
- [correspondance générale relative aux droits d'auteur](#).

## Dessins industriels

Pour l'application du paragraphe 24.1(1) de la Loi sur les dessins industriels, la correspondance indiquée ci-dessous qui est adressée au Bureau des dessins industriels peut être transmise par voie électronique, notamment en accédant aux pages suivantes :

- [demande d'enregistrement d'un dessin industriel](#);
- [commande de copies de documents papier ou électroniques](#);
- [correspondance générale relative aux dessins industriels](#); et
- [paiement des droits de maintien des dessins industriels](#).

## Topographies de circuits intégrés

Pour l'application du paragraphe 3(6) du Règlement sur les topographies de circuits intégrés, la correspondance indiquée ci-dessous qui est adressée au registraire des topographies peut être transmise par voie électronique, notamment en accédant aux pages suivantes :

- [correspondance générale relative aux topographies de circuits intégrés](#).

### 2.3 Supports électroniques

**Note :** Les supports électroniques doivent être exempts de ver informatique, de virus, ou de tout autre contenu malveillant. Les fichiers qui comprennent du contenu malveillant seront supprimés.

## Brevets

## Patents

The Patent Office will accept correspondence on various types of electronic medium as specified below. The electronic medium should contain a table of contents and be provided with a cover letter, which will be date stamped by CIPO and placed in the application file. Filing date requirements prescribed in the Patent Rules still remain.

When submitted on an electronic medium, the parts of the application must be logically broken down in files, which are no larger than 25 megabytes.

With regards to sequence listings under Rule 111 of the Patent Rules, the electronic medium must be separate from any electronic medium which may be filed containing parts of the application itself or amendment(s) thereof.

### Canada as Receiving Office Under the PCT: Electronic Filing of Sequence Listings

Pursuant to PCT Rules 89bis and 89ter, and in accordance with Part 7 of the PCT Administrative Instructions, where an international application contains disclosure of one or more nucleotide and/or amino acid sequence listings, CIPO, in its role as a receiving Office, accepts that the sequence listing part of the description and/or any table related to the sequence listing(s) be filed, at the option of the applicant:

- i. only on an electronic medium in electronic form in accordance with section 702 of Part 7 of the PCT Administrative Instructions; or
- ii. both on an electronic medium in electronic form and on paper in accordance with section 702 of Part 7 of the PCT Administrative Instructions;

provided that the other elements of the international application are filed as otherwise provided for under the PCT.

The sequence listing part of an international application filed in electronic form and related tables filed in electronic form shall comply with the relevant provisions of Annex C and C-bis of the PCT Administrative Instructions respectively.

For this purpose the Canadian receiving Office will accept any electronic media specified in Annex F of the PCT Administrative Instructions. Where both the sequence listing and the tables are filed in electronic form, the listing and the tables shall be contained on separate electronic media, which shall contain no other programs or files.

For the purpose of processing the international application, the Canadian receiving Office requires two (2) additional copies of

Le Bureau des brevets acceptera la correspondance transmise à l'aide de divers supports électroniques, tel qu'indiqué ci-dessous. Le support électronique devrait contenir une table des matières et être accompagné d'une lettre explicative, laquelle sera datée par l'OPIC et placée dans le dossier de la demande. Les exigences relatives à la date de dépôt énoncées dans les Règles sur les brevets resteront applicables.

Les parties d'une demande qui sont présentées sur support électronique doivent être logiquement réparties en fichiers de 25 mégaoctets au maximum.

En ce qui concerne les listages des séquences prévus à l'article 111 des Règles sur les brevets, le support électronique doit être distinct de tout support électronique qui peut être déposé et qui contient des parties de la demande elle-même ou des modifications relatives à la demande.

### Le Canada comme office récepteur au titre du PCT : Dépôt électronique des listages de séquences

Conformément aux Règles 89bis et 89ter du PCT et à la Partie 7 des Instructions administratives du PCT, lorsqu'une demande internationale contient la divulgation d'un ou de plusieurs listages des séquences de nucléotides et/ou d'acides aminés, à titre d'office récepteur l'OPIC accepte le dépôt de la partie de la description contenant les listages des séquences et/ou de tout tableau relatif aux listages des séquences et ce, à la discrétion du requérant :

- i. seulement sous forme électronique et sur support électronique, conformément à l'article 702 de la Partie 7 des Instructions administratives du PCT, ou
- ii. sur support papier et sur support électronique sous forme électronique, conformément à l'article 702 de la Partie 7 des Instructions administratives du PCT,

à condition que les autres éléments de la demande internationale soient déposés conformément aux dispositions du PCT.

Dans une demande internationale déposée sous forme électronique, la partie qui contient le listage des séquences et les tableaux connexes seront conformes aux dispositions pertinentes de l'Annexe C et de l'Annexe C-bis des Instructions administratives du PCT, respectivement.

À cette fin, l'office récepteur canadien acceptera tout support électronique prévu à l'Annexe F des Instructions administratives du PCT. Lorsque le listage des séquences et les tableaux sont déposés sous forme électronique, ils le seront sur des supports électroniques distincts ne contenant pas d'autres programmes ni fichiers.

## Notices

the electronic media containing the sequence listing and/or tables in electronic form, accompanied by a statement that the sequence listings and/or tables contained in the copies are identical to those in electronic form as filed.

For further details concerning the filing of sequence listings and/or tables in electronic form, including the labeling of the electronic media and the calculation of the international filing fee, refer to section 7 of the PCT Administrative Instructions.

### Electronic Media accepted by the Patent Office

The Patent Office will accept 3.5 inch diskette, CD-ROM, CD-R, DVD, DVD-R and any format as specified in Annex F of the PCT Administration Instructions.

### Trademarks and Industrial Design

The Office of the Registrar of Trademarks and the Industrial Design Office will accept the following types of electronic media: CD-ROM, CD-R, DVD, DVD-R, and USB stick.

## 3. Details Concerning the Electronic Formats Accepted

### Patents

In accordance with section 8.1 of the Patent Act, and for the purposes of subsections 5(6), 54(5), and 68(3) of the Patent Rules, the acceptable file formats for documents submitted electronically site using the relevant links set out in [section 2.2](#) of these correspondence procedures or on electronic media are TIFF and PDF. In order to get a correspondence date, the office will accept documents initially filed in other formats provided they are viewable with the software "Stellent Quick View Plus 8.0.0". In these cases, the office will request the documents to be replaced by documents in PDF or TIFF and the submission of a statement to the effect that the replacement documents are the same as the documents initially filed.

Sequence listings can be initially provided in TIFF, PDF or in ASCII file formats. However, as a completion requirement according to section 94 of the Patent Rules, a sequence listing in the ASCII format compliant with the "PCT sequence listing standard" has to be submitted. Therefore, CIPO encourages applicants to submit the sequence listings in the ASCII format in the first place.

When applicable, the Patent Office will accept files in the

Aux fins du traitement de la demande internationale, l'office récepteur canadien exige deux (2) copies supplémentaires du support électronique contenant le listage de séquences et/ou les tableaux sous forme électronique, accompagnées d'une déclaration indiquant que le listage des séquences et/ou les tableaux contenus dans les copies sont identiques à ceux qui ont été déposés sous forme électronique.

On trouvera à l'article 7 des Instructions administratives du PCT des détails supplémentaires sur le dépôt de listages des séquences et/ou de tableaux sous forme électronique, notamment sur l'étiquetage des supports électroniques et le calcul de la taxe de dépôt internationale.

### Supports électroniques acceptés par le Bureau des brevets

Le Bureau de brevets acceptera des disquettes 3,5 pouces, CD-ROM, CD-R, DVD, DVD-R et tout format spécifié à l'Annexe F des Instructions administratives du PCT.

### Marques de commerce et dessins industriels

Le Bureau du registraire des marques de commerce et le Bureau des dessins industriels acceptent les supports électroniques suivants : CD ROM, CD-R, DVD, DVD-R, et clé USB.

## 3. Précisions concernant les formats électroniques acceptés

### Brevets

Conformément à l'article 8.1 de la Loi sur les brevets et aux fins des paragraphes 5(6), 54(5) et 68(3) des Règles sur les brevets, les formats de fichiers acceptables pour les documents présentés par voie électronique en utilisant les liens spécifiés à [l'article 2.2](#) des présentes procédures de correspondance ou sur support électronique sont les formats TIFF et PDF. Pour qu'une date de correspondance soit attribuée, le Bureau acceptera des documents initialement déposés dans d'autres formats à condition qu'ils soient consultables à l'aide du logiciel « Stellent Quick View Plus 8.0.0 ». Dans de tels cas, le Bureau exigera le remplacement des documents par des fichiers en format PDF ou TIFF, ainsi qu'une déclaration indiquant que ces fichiers sont identiques aux documents initialement déposés.

Les listages des séquences peuvent être initialement déposés sous forme de fichiers TIFF, PDF ou ASCII. Toutefois, afin de compléter la demande, conformément à l'article 94 des Règles sur les brevets, un listage des séquences en format ASCII conforme à la Norme PCT de listage des séquences devra être présenté. L'OPIC encourage donc les demandeurs à déposer les listages de séquences en format ASCII dès le départ.

## Avis

TIFF, PDF and ASCII format when they comply with the following specifications:

TIFF Format:

- TIFF CCITT Group 4, single or multi-page, black and white;
- Resolution of either 300 or 400 dpi;
- The dimensions of the scanned/stored images should match that of the paper requirements, namely 8 1/2" by 11" or A4.

PDF Format:

- Adobe Portable Document Format Version 1.4 compatible;
- Non-compressed text to facilitate searching;
- Unencrypted text;
- No embedded OLE objects;
- All fonts must be embedded and licensed for distribution.

ASCII

- Shall be encoded using IBM Code Page 437, IBM Code Page 932 or a compatible code page.

## Trademarks

For the purposes of subsection 64(1) of the Trademarks Act, the acceptable file formats for documents submitted electronically using the relevant links set out in [section 2.2](#) of these correspondence procedures are: PNG, TIFF, JPEG, GIF, MP3, MP4, PDF, BMP and Doc.

## Industrial Design

For the purposes of subsection 24.1(1) of the Industrial Design Act, the acceptable file formats for documents, other than a representation of a design, submitted electronically are WPD, DOC, DOCX and PDF. The acceptable file formats for the representation of a design are PDF, JPEG, TIFF and GIF. The file size limit is of 60MB for PDF, 10MB for the other file formats. The scanned/stored images should be of a resolution of at least 300 dpi and the dimensions must be of 21.59 cm by 27.94 cm (8.5 in by 11 in).

Note that the conversion of files to an acceptable format may result in a change to the quality of the drawings.

Le cas échéant, le Bureau des brevets acceptera des fichiers en format TIFF, PDF et ASCII s'ils sont conformes aux spécifications suivantes :

Format TIFF

- TIFF CCITT Groupe 4, une ou plusieurs pages, noir et blanc
- Résolution : 300 ou 400 ppp
- Les dimensions des images balayées par scanner ou mémorisées doivent être compatibles avec celles qui sont requises pour les papiers, soit 8 1/2 po par 11 po ou A4.

Format PDF

- Compatible avec Adobe Portable Document Format Version 1.4
- Texte non comprimé, pour faciliter la recherche
- Texte non chiffré
- Pas d'objets OLE incorporés
- Toutes les polices de caractère doivent être incorporées et leur distribution doit être autorisée.

ASCII

- Le texte sera encodé à l'aide des pages de codes IBM 437 ou IBM 932 ou d'une page de codes compatible.

## Marques de commerce

Pour l'application du paragraphe 64(1) de la Loi sur les marques de commerce, les formats de fichiers acceptables pour les documents fournis par un moyen électronique énoncé à la [section 2.2](#) des présentes procédures de correspondance sont : PNG, TIFF, JPEG, GIF, MP3, MP4, PDF, BMP et Doc.

## Dessins industriels

Pour l'application du paragraphe 24.1(1) de la Loi sur les dessins industriels, les formats de fichiers acceptables pour les documents autres que la représentation d'un dessin, transmis par voie électronique sont : WPD, DOC, DOCX, PDF. Les formats de fichiers acceptables pour la représentation d'un dessin sont PDF, JPEG, TIFF, et GIF. La taille maximale est de 60MB pour le format PDF et de 10MB pour tout autre format. L'image numérisée/stockée devrait être dans une résolution d'au moins 300 dpi et les dimensions doivent être de 21,59 cm par 27,94 cm (8,5 po par 11po)

Veillez noter que la conversion de fichiers vers un format acceptable pourrait résulter en un changement à la qualité des dessins.

## Notices

### 4. General Information

General information may be obtained by communicating with CIPO's [Client Service Centre](#).

### 5. Time Period Extensions

- [Time period extensions under the Patent, Trademarks and Industrial Design Acts](#)
- [Time period extensions under the Copyright and Integrated Circuit Topography Acts](#)
- [Time period extensions under the Patent Cooperation Treaty](#)
- [Time period extensions under the Madrid Protocol and the Hague Agreement](#)

#### Time period extensions under the Patent, Trademarks and Industrial Design Acts

For the purposes of subsection 78(1) of the Patent Act, subsection 66(1) of the Trademarks Act, and subsection 21(1) of the Industrial Design Act, any time period fixed under those Acts and ending on 1) a **prescribed day** set out in the list below or 2) a **designated day** on account of unforeseen circumstances, will be extended to the next day that is not a prescribed day or a designated day and where CIPO is open to the public.

**Designated days** are those days that are designated by the Commissioner, the Registrar, or the Minister, on account of unforeseen circumstances and if they are satisfied that it is in the public interest to do so. If a day is designated, the public will be informed of that fact on CIPO's website.

**Prescribed days** under the Patent Act, Trademarks Act and Industrial Design Act are as follows:

- Every Saturday and Sunday;
- New Year's Day (January 1)\*;
- Good Friday;
- Easter Monday;
- Victoria Day: First Monday immediately preceding May 25;
- St. Jean Baptiste Day (June 24)\*;
- Canada Day (July 1)\*;
- The first Monday in August;\*\*\*
- Labour Day: First Monday in September;
- Thanksgiving Day: Second Monday in October;

### 4. Renseignements généraux

Des renseignements généraux peuvent être obtenus en communiquant avec [le Centre de services à la clientèle de l'OPIC](#).

### 5. Prorogation des délais

- [Prorogation des délais en vertu des les Lois sur les brevets, les marques de commerce, et les dessins industriels](#)
- [Prorogation des délais en vertu des les Lois sur le droit d'auteur et les topographies de circuits intégrés](#)
- [Prorogation des délais en vertu du le Traité de coopération en matière de brevets](#)
- [Prorogation des délais en vertu du Protocole de Madrid et de l'Arrangement de La Haye](#)

#### Prorogation des délais prévus par les Lois sur les brevets, les marques de commerce, et les dessins industriels

Pour l'application du paragraphe 78(1) de la Loi sur les brevets, du paragraphe 66(1) de la Loi sur les marques de commerce, et du paragraphe 21(1) de la Loi sur les dessins industriels, tout délai fixé sous le régime de ces lois et qui expire 1) un **jour prescrit ou réglementaire** tel qu'indiqué dans la liste ci-dessous, ou 2) un **jour désigné** en raison de circonstances imprévues, sera prorogé jusqu'au jour suivant qui n'est ni un jour prescrit ni un jour désigné et où l'OPIC est ouvert au public.

Les **jours désignés** sont les jours désignés par le commissaire, le registraire, ou le ministre, où, en raison de circonstances imprévues, s'il est dans l'intérêt public de le faire. Si un jour est désigné, le public en sera informé sur le site web de l'OPIC.

Les **jours prescrits ou réglementaires** en vertu de la Loi sur les brevets, de la Loi sur les marques de commerce et de la Loi sur les dessins industriels sont les suivants :

- Tous les samedis et dimanches;
- Nouvel An (1<sup>er</sup> janvier)\*;
- Vendredi Saint;
- Lundi de Pâques;
- Fête de la Reine ou Journée nationale des patriotes : Premier lundi immédiatement avant le 25 mai;
- Saint-Jean-Baptiste (24 juin)\*;
- Fête du Canada (1<sup>er</sup> juillet)\*;
- Le premier lundi du mois d'août\*\*\*;
- Fête du travail : Premier lundi du mois de septembre;

## Avis

- Remembrance Day (November 11)\*;
- Christmas Day (December 25)\*\*;
- Boxing Day (December 26)\*\* ;
- Any day on which CIPO is closed to the public for all or part of that day during ordinary business hours.

\*In the case of New Year's Day, St. Jean Baptiste Day, Canada Day and Remembrance Day, if the day falls on a Saturday or Sunday, deadlines will be extended to the following Tuesday.

\*\*If December 25 falls on a Friday, deadlines will be extended to the following Tuesday. If December 25 falls on a Saturday or Sunday, any time periods ending on December 25 or December 26 will be extended to the following Wednesday.

\*\*\*Please note that the Office is open to the public on the first Monday in August. Any time period which expires on that day will be extended to the next day the Office is open to the public (first Tuesday in August). However, any correspondence or fees submitted to the Office on that day will be deemed or considered received on that day.

Extensions for prescribed days occur regardless of place of residence or of the establishment to which documents are delivered.

Please be aware that not all provincial and territorial holidays are days where deadlines are extended. It is recommended that clients be mindful and ensure that all deadlines are respected.

### Time period extensions under the Copyright and Integrated Circuit Topography Acts

In accordance with section 26 of the Interpretation Act, any person choosing to deliver a document to CIPO or a designated establishment (including the Registered Mail™ and Xpresspost™ services of Canada Post) where a federal, provincial or territorial holiday exists, is entitled to an extension of any time limit for the filing of the document that expires on the holiday, until the next day that is not a holiday. It is to be noted, in respect of provincial and territorial holidays, that the entitlement to the extension is dependent on the establishment to which the document is delivered and not on the place of residence of the person for whom the document is filed or of their agent. For this purpose, documents transmitted to CIPO by electronic means, including by facsimile, would be considered to be delivered to CIPO's offices in Gatineau, Quebec.

CIPO has no practical way of keeping track of the establishment to which documents are delivered. Accordingly,

- Action de Grâce : Deuxième lundi du mois d'octobre;
- Jour du Souvenir (11 novembre)\*;
- Jour de Noël (25 décembre)\*\*;
- Lendemain de Noël\*\* ;
- Tout jour où l'OPIC est fermé au public pendant tout ou une partie des heures normales d'ouverture de l'OPIC au public.

\*Si le Nouvel An, la Saint-Jean-Baptiste, la Fête du Canada, ou le Jour du Souvenir est un samedi ou un dimanche, les délais seront prorogés au mardi suivant.

\*\*Si le 25 décembre est un vendredi, les délais seront prorogés au mardi suivant. Si le 25 décembre est un samedi ou un dimanche, les délais seront prorogés au mercredi suivant.

\*\*\*Veuillez noter que les Bureaux sont ouverts au public le premier lundi du mois d'août. Tout délai qui expire ce jour-là sera prorogé au prochain jour ouvrable (premier mardi du mois d'août). Cependant, toute correspondance, droits ou taxes fournis au Bureau ce jour-là seront réputés ou considéré avoir été reçus à cette date.

La prorogation de délai concernant les jours prescrits ou réglementaires s'appliquent nonobstant du lieu de résidence ou du lieu de l'établissement auquel les documents ont été remis.

Veuillez noter que ce ne sont pas tous les jours fériés provinciaux ou territoriaux qui sont des jours prescrits ou réglementaires pour lesquels un délai peut être prorogé. Il est recommandé que les clients soient attentifs et s'assurent que tout délai soit respecté.

### Prorogation des délais prévus par les Lois sur le droit d'auteur et sur les topographies de circuits

Selon l'article 26 de la Loi d'interprétation, lorsqu'une personne choisit de livrer un document à l'OPIC ou à un établissement désigné (y compris un bureau régional d'Innovation, Sciences et Développement économique Canada ou le service Courrier recommandé<sup>MC</sup>, ou par Xpresspost<sup>MC</sup> de Postes Canada) dans une province où il y a un jour férié fédéral, provincial ou territorial, tout délai fixé pour le dépôt du document, qui expire un jour férié peut être prorogé jusqu'au jour non férié suivant. Dans le cas d'un jour férié provincial ou territorial, il convient de souligner que le droit à la prorogation dépend de l'établissement auquel le document est livré et non du lieu de résidence de la personne pour laquelle le document est déposé ou de son agent. À cet égard, les documents envoyés à l'OPIC par un moyen électronique, y compris par télécopieur, sont réputés être livrés aux bureaux de l'OPIC à Gatineau, au Québec.

En pratique, l'OPIC n'a aucun moyen de faire le suivi relativement aux établissements auxquels des documents sont

## Notices

where a person has a time limit for the filing of a document that expires on a provincial or territorial holiday but only delivers the document on the next day that is not a holiday, CIPO will assume that the document was delivered to an establishment that would justify an extension of the time limit. In such circumstances, it will be the responsibility of the person filing the document to ensure that he or she is properly entitled to any needed extension of the time limit.

### Time period extensions under the Patent Cooperation Treaty

Rule 80.5 of the Regulations under the PCT provides:

If the expiration of any period during which any document or fee must reach a national Office or intergovernmental organization falls on a day:

- i. on which such Office or organization is not open to the public for the purposes of the transaction of official business;
- ii. on which ordinary mail is not delivered in the locality in which such Office or organization is situated;
- iii. which, where such Office or organization is situated in more than one locality, is an official holiday in at least one of the localities in which such Office or organization is situated, and in circumstances where the national law applicable by that Office or organization provides, in respect of national applications, that, in such a case, such period shall expire on a subsequent day; or
- iv. which, where such Office is the government authority of a Contracting State entrusted with the granting of patents, is an official holiday in part of that Contracting State, and in circumstances where the national law applicable by that Office provides, in respect of national applications, that, in such a case, such period shall expire on a subsequent day;

the period shall expire on the next subsequent day on which none of the said four circumstances exists.

### Time period extensions under the Madrid Protocol and the Hague Agreement

If a period within which a communication must be received by the International Bureau of the World Intellectual Property Office would expire on a day on which the International

livrés. Par conséquent, si le délai pour le dépôt d'un document tombe un jour férié provincial ou territorial et qu'une personne le livre seulement le jour non férié suivant, l'OPIC tiendra pour acquis que le document a été livré à un établissement qui justifierait une prorogation du délai. Dans de telles circonstances, il incombe au déposant de s'assurer qu'il a droit à une telle prorogation.

### Prolongations de délais prévus au Traité de coopération en matière de brevets

La règle 80.5 du Règlement d'exécution du PCT prévoit ce qui suit :

Si un délai quelconque pendant lequel un document ou une taxe doit parvenir à un office national ou à une organisation intergouvernementale expire un jour :

- i. où cet office ou cette organisation n'est pas ouvert au public pour traiter d'affaires officielles;
- ii. où le courrier ordinaire n'est pas délivré dans la localité où cet office ou cette organisation est situé;
- iii. qui, lorsque cet office ou cette organisation est situé dans plus d'une localité, est un jour férié dans au moins une des localités dans lesquelles cet office ou cette organisation est situé, et dans le cas où la législation nationale applicable par cet office ou cette organisation prévoit, à l'égard des demandes nationales, que, dans cette situation, ce délai prend fin le jour suivant; ou
- iv. qui, lorsque cet office est l'administration gouvernementale d'un État contractant chargée de délivrer des brevets, est un jour férié dans une partie de cet État contractant, et dans le cas où la législation nationale applicable par cet office prévoit, à l'égard des demandes nationales, que, dans cette situation, ce délai prend fin le jour suivant;

Le délai prend fin le premier jour suivant auquel aucune de ces quatre circonstances n'existe plus.

### Prorogation des délais en vertu du Protocole de Madrid et de l'Arrangement de La Haye

Si un délai à l'intérieur duquel une communication doit être reçue par le Bureau international de l'Organisation mondiale de propriété intellectuelle expire un jour où le Bureau international n'est pas ouvert au public, le délai expirera lors du



## Avis

Bureau is not open to the public, it will expire on the next subsequent day on which the International Bureau is open. Likewise, if the period within which a communication (such as a notification of refusal of protection) must be sent by CIPO to the International Bureau would expire on a day on which CIPO is not open to the public, it will expire on the next subsequent day on which CIPO is open.

A list of the days on which the International Bureau is closed to the public during the current and the following calendar year is available on the [WIPO website](#).

### 6. Procedures in Case of an Unexpected Office Closure at CIPO

In case of unforeseen circumstances, CIPO will attempt to remain open to the public and ensure that essential service to our clients continues with the least possible disruption or delay.

In accordance with paragraph 27.01(n) of the Patent Rules, paragraph 15(n) of the Trademarks Regulations and paragraph 36(n) of the Industrial Design Regulations, whenever CIPO is closed to the public, for all or part of a day during ordinary business hours, including closures due to extraordinary circumstances, time periods will be extended to the next day that is not a prescribed or a designated day and where CIPO is open to the public.

For Copyright and Integrated Circuit Topography, if CIPO is closed to the public due to extraordinary circumstances, CIPO considers all time limits to be extended until the next day that it is open to the public. In such situations, mail delivered to CIPO or to designated establishments will be considered to be received on the date that CIPO re-opens to the public, with the exception of correspondence addressed to the Registrar of Topographies.

In view of the date-sensitive nature of intellectual property (IP), clients are advised to address important deadlines ahead of time to minimize the risk of affecting their IP rights. For the purposes of such deadlines, unless otherwise notified, clients should assume that all due dates remain in effect.

When possible during an emergency, information and search systems will continue to be available on our website; however, services provided through the Client Service Centre and other support areas within CIPO may be temporarily unavailable. Should an emergency occur, CIPO will post information with respect to [service interruptions](#) on our website as it becomes available and as circumstances permit.

Clients are **strongly encouraged** to send date-sensitive material through Canada Post by Registered Mail™ or Xpresspost™ or to use electronic means using the relevant links set out in [section 2.2](#) of these correspondence procedures. Documents may continue to be faxed to CIPO at 819-953-CIPO (953-2476). Date-sensitive material requiring fee

premier jour suivant où le Bureau international est ouvert au public. Similairement, si un délai à l'intérieur duquel une communication (tel qu'une notification de refus de la protection) doit être envoyée par l'OPIC au Bureau international expire un jour où les bureaux de l'OPIC sont fermés au public, ce délai expirera lors du premier jour suivant la réouverture de l'OPIC.

Une liste des jours pendant lesquels le Bureau international est fermé au public pendant l'année civile en cours et à venir est disponible [sur le site web de l'OMPI](#).

### 6. Procédures en cas de fermeture des bureaux

Lors de circonstances imprévues, l'OPIC s'efforcera de demeurer ouvert au public et d'assurer un service essentiel à ses clients, et ce, avec le moins d'interruption ou de retard possible.

Conformément à l'alinéa 27.01n) des Règles sur les Brevets, l'alinéa 15n) du Règlement sur les marques de commerce et de l'alinéa 36n) du Règlement sur les dessins industriels, lorsque les bureaux de l'OPIC sont fermés au public pendant toute ou une partie des heures normales d'ouverture, y compris une fermeture en raison de circonstances extraordinaires, les délais seront prorogés au jour suivant qui ne sera pas un jour prescrit ou un jour désigné et où l'OPIC est ouvert au public.

Pour les droits d'auteur et les topographies de circuits intégrés, si les bureaux de l'OPIC sont fermés au public en raison de circonstances extraordinaires, l'OPIC considère que tous les délais sont prorogés au prochain jour d'ouverture au public. Dans de telles circonstances, le courrier livré à l'OPIC ou à des établissements désignés sera considéré avoir été reçu à la date du jour de la réouverture de l'OPIC au public, à l'exception de la correspondance adressée au registraire des topographies.

Étant donné **l'importance que revêtent les délais** en matière de propriété intellectuelle (PI), il est recommandé aux clients de minimiser les risques pouvant nuire à leurs droits en matière de PI en tenant compte à l'avance des dates limites importantes. En ce qui a trait aux délais prescrits, les clients doivent respecter toutes les dates d'échéance, à moins d'avis contraire.

En situation d'urgence, les systèmes d'information et de recherche resteront, dans la mesure du possible, accessibles à partir de notre site Web. Toutefois, les services fournis par le Centre de services à la clientèle et les autres services de soutien de l'OPIC pourraient temporairement ne pas être offerts. En situation d'urgence, l'OPIC va publier les renseignements nécessaires sur notre [page d'interruptions des services](#), lorsque ceux-ci seront disponibles et les circonstances le permettront.

Les clients sont **fortement encouragés** de faire parvenir les documents assujettis à des délais précis par Postes Canada par Courrier recommandé<sup>MC</sup>, par Xpresspost<sup>MC</sup> ou par voie électronique en utilisant les liens spécifiés à [l'article 2.2](#) des présentes procédures de correspondance. Il est toujours

## Notices

payment that is sent by fax must be accompanied by a [VISA™](#), [MasterCard™](#), or [American Express™](#) credit card number, or [CIPO deposit account number](#).

Please note that there may also be instances in which the designated offices may be temporarily closed, yet CIPO remains open to the public. In such situations, it remains **the responsibility of CIPO's clients** to ensure that all deadlines are respected.

### 7. Procedures when CIPO is Open to the Public but Clients are Unable to Communicate with the Office

#### Patents, Industrial Design, Copyright and Integrated Circuit Topography

The legislative framework in relation with the abovementioned types of intellectual property does not provide CIPO with the flexibility to extend deadlines when it is open to the public but clients are unable to communicate with the Office.

In these situations it remains the responsibility of clients to ensure that all deadlines are respected.

#### Trademarks

The Trademarks Act and Regulations allow clients to request a retroactive extension of time when a due date has been missed due to a force majeure type situation. In order for a retroactive extension of time to be granted, the Registrar of Trademarks must be satisfied that the failure to do the act or apply for an extension of time before the original due date was not reasonably avoidable. A prescribed fee is required in certain cases.

### 8. Intellectual property acts, rules and regulations

- [Copyright Act](#)
- [Copyright Regulations](#)
- [Industrial Design Act](#)
- [Industrial Design Regulations](#)
- [Integrated Circuit Topography Act](#)
- [Integrated Circuit Topography Regulations](#)
- [Interpretation Act](#)
- [Patent Act](#)

possible de transmettre par télécopieur des documents à l'OPIC en composant le 819-953-OPIC (953-6742). Cependant, les documents assujettis à des délais pour lesquels des droits ou taxes sont exigés, qui sont envoyés par télécopieur, doivent être accompagnés [d'un numéro de carte VISA<sup>MC</sup>](#), [Mastercard<sup>MC</sup>](#) [ou American Express<sup>MC</sup>](#) [ou d'un numéro de compte de dépôt à l'OPIC](#).

Veillez noter qu'il pourrait y avoir des cas où les bureaux régionaux seraient fermés temporairement, mais où l'OPIC resterait ouvert au public. Le cas échéant, **les clients de l'OPIC demeurent responsables** du respect de tous les échéanciers.

### 7. Procédures à suivre lorsque l'Office est ouvert au public, mais les clients sont incapables de communiquer avec l'Office

#### Brevets, dessins industriels, droit d'auteur et topographies de circuits intégrés

Le cadre législatif en rapport aux types de propriété intellectuelle mentionnés ci-haut ne donne pas à l'OPIC la flexibilité de proroger les délais lorsque l'Office est ouvert au public, mais les clients sont dans l'impossibilité de communiquer avec le l'Office.

Dans une telle situation, les clients demeurent tenus de veiller à ce que les échéances soient respectées.

#### Marques de commerce

La Loi sur les marques de commerce et le Règlement sur les marques de commerce permettent aux clients de demander une prolongation rétroactive lorsqu'un délai n'a pas été respecté en raison d'un cas de force majeure. Pour qu'une prolongation de délai rétroactive soit accordée, le registraire des marques de commerce doit être convaincu que l'omission d'accomplir l'acte ou de demander la prorogation avant la date initiale d'échéance n'était pas raisonnablement évitable. Un droit prescrit est exigé dans certains cas.

### 8. Lois, règles et règlements sur la propriété intellectuelle

- [Loi sur le droit d'auteur](#)
- [Règlement sur le droit d'auteur](#)
- [Loi sur les dessins industriels](#)
- [Règlement sur les dessins industriels](#)
- [Loi sur les topographies de circuits intégrés](#)
- [Règlement sur les topographies de circuits intégrés](#)
- [Loi d'interprétation](#)
- [Loi sur les brevets](#)
- [Règles sur les brevets](#)

## Avis

- [Patent Rules](#)
- [Regulations under the PCT](#)
- [Trademarks Act](#)
- [Trademarks Regulations](#)

- [Règlement d'exécution du PCT](#)
- [Loi sur les marques de commerce](#)
- [Règlement sur les marques de commerce](#)

### **15. Canadian Applications Open to Public Inspection**

The *Canadian Patent Office Record* of December 5, 2023 contains applications open to public inspection from November 19, 2023 to November 25, 2023.

### **15. Demandes canadiennes mises à la disponibilité du public**

La *Gazette du bureau des brevets* du 5 décembre 2023 contient les demandes disponibles au public pour consultation pour la période du 19 novembre 2023 au 25 novembre 2023.

# Canadian Patents Issued

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## Brevets canadiens délivrés

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[13] C

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[25] EN

[54] **LACTOBACILLUS ENGINEERED TO EXPRESS AN ANTI-SPERM ANTIBODY AS FEMALE CONTRACEPTIVE**

[54] **LACTOBACILLE CONCU POUR EXPRIMER UN ANTICORPS ANTISPERMATIQUE COMME CONTRACEPTIF FEMININ**

[72] TEITELBAUM, RACHEL, IL

[73] HERVANA LTD., IL

[85] 2012-10-22

[86] 2011-05-04 (PCT/IL2011/000352)

[87] (WO2011/138776)

[30] US (61/331,892) 2010-05-06

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[11] **2,861,802**  
[13] C

[51] **Int.Cl. G06Q 10/10 (2023.01) G06Q 10/0631 (2023.01) G06Q 10/0833 (2023.01)**

[25] EN

[54] **CASCADING CALL NOTIFICATION SYSTEM AND METHOD**

[54] **SYSTEME DE NOTIFICATION D'APPEL EN CASCADE ET METHODE**

[72] MEYER, KARL, US

[72] TURNER, JONATHAN, US

[73] RXO LAST MILE, INC., US

[86] (2861802)

[87] (2861802)

[22] 2014-09-02

[30] US (14/460,786) 2014-08-15

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[11] **2,867,963**  
[13] C

[51] **Int.Cl. B01J 19/18 (2006.01) C08H 8/00 (2010.01) B01J 19/20 (2006.01) F26B 11/04 (2006.01) F26B 15/10 (2006.01)**

[25] EN

[54] **METHOD FOR THE MODIFICATION OF WOOD**

[54] **PROCEDE DE MODIFICATION DU BOIS**

[72] POL, BERNARDUS JOZEF MARIA, GB

[72] VAN DOMMELE, STEFAN, GB

[72] BUSSEMAKER, PAUL, GB

[72] PAINTER, BENJAMIN, GB

[72] DE WIT, GERRIT ARIE, GB

[72] KAPPEN, THEODORUS GERARDUS MARINUS MARIA, GB

[73] TITAN WOOD LIMITED, GB

[85] 2014-09-19

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[13] C

[51] **Int.Cl. C12Q 1/68 (2018.01) C12Q 1/6806 (2018.01) B01J 13/02 (2006.01) C07H 21/00 (2006.01) C08J 3/075 (2006.01) C08K 5/529 (2006.01) C08L 33/26 (2006.01) C12M 1/34 (2006.01) C12N 15/10 (2006.01) C12P 19/34 (2006.01) C40B 20/04 (2006.01) C40B 30/04 (2006.01) C40B 70/00 (2006.01) G01N 33/48 (2006.01) C12M 1/38 (2006.01)**

[25] EN

[54] **MICROCAPSULE COMPOSITIONS AND METHODS**

[54] **COMPOSITIONS DE MICROCAPSULE ET PROCEDES**

[72] HINDSON, BENJAMIN, US

[72] SAXONOV, SERGE, US

[73] 10X GENOMICS, INC., US

[85] 2015-02-10

[86] 2013-08-13 (PCT/US2013/054797)

[87] (WO2014/028537)

[30] US (61/683,192) 2012-08-14

[30] US (61/737,374) 2012-12-14

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[13] C

[51] **Int.Cl. C07K 16/24 (2006.01) A61K 39/395 (2006.01) A61P 9/00 (2006.01)**

[25] EN

[54] **TREATING VASCULAR DISEASE AND COMPLICATIONS THEREOF**

[54] **TRAITEMENT DES MALADIES VASCULAIRES ET DE LEURS COMPLICATIONS**

[72] SIMARD, JOHN, US

[73] JANSSEN BIOTECH, INC., US

[85] 2015-03-27

[86] 2013-10-01 (PCT/US2013/062903)

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[30] US (61/709,754) 2012-10-04

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[13] C

[51] **Int.Cl. C07K 16/28 (2006.01)**  
[25] EN  
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[54] **POLYPEPTIDES DE LIAISON  
HYPERGLYCOSYLES**  
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[72] QIU, HUAWEI, US  
[72] DHAL, PRADEEP, US  
[72] CHEN, BO, US  
[72] GIANOLIO, DIEGO, US  
[73] GENZYME CORPORATION, US  
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(2015.01)**  
[25] EN  
[54] **ISOLATED DISCOGENIC CELLS,  
METHODS OF USING, AND  
METHODS OF PREPARING SAME  
FROM MAMMALIAN TISSUE**  
[54] **CELLULES DISCOGENIQUES  
ISOLEES, PROCEDES  
D'UTILISATION ET PROCEDES  
DE PREPARATION DE CELLES-CI  
A PARTIR D'UN TISSU DE  
MAMMIFERE**  
[72] SILVERMAN, LARA IONESCU, US  
[72] FOLEY, KEVIN T., US  
[73] DISCGENICS, INC., US  
[85] 2015-09-03  
[86] 2014-03-14 (PCT/US2014/028026)  
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[13] C

[51] **Int.Cl. C12N 15/113 (2010.01) A61K  
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[25] EN  
[54] **COMPLEMENT COMPONENT C5  
IRNA COMPOSITIONS AND  
METHODS OF USE THEREOF**  
[54] **COMPOSITIONS D'ARNI DU  
CONSTITUANT C5 DU  
COMPLEMENT ET LEURS  
PROCEDES D'UTILISATION**  
[72] FITZGERALD, KEVIN, US  
[72] BUTLER, JAMES, US  
[72] BETTENCOURT, BRIAN, US  
[72] BORODOVSKY, ANNA, US  
[72] KUCHIMANCHI,  
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[72] MANOHARAN, MUTHIAH, US  
[72] MAIER, MARTIN, US  
[72] RAJEEV, KALLANTHOTTATHIL G.,  
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[73] ALNYLAM PHARMACEUTICALS,  
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[85] 2015-09-08  
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[51] **Int.Cl. G01R 31/62 (2020.01) G06Q  
10/04 (2023.01) G06Q 50/06 (2012.01)  
H02B 15/00 (2006.01) H02J 13/00  
(2006.01)**  
[25] EN  
[54] **DISTRIBUTION TRANSFORMER  
HEAVY LOADING AND  
OVERLOADING MID-TERM AND  
SHORT-TERM PRE-WARNING  
ANALYTICS MODEL**  
[54] **MODELE D'ANALYSE A MOYEN  
TERME ET A COURT TERME DE  
CHARGE LOURDE ET DE  
SURCHARGE DE  
TRANSFORMATEUR DE  
DISTRIBUTION**  
[72] LI, MING, CN  
[72] ZHOU, QIN, CN  
[72] YANG, ZHIHUI, CN  
[72] YE, MING, CN  
[72] HE, LONG, CN  
[72] LIN, GUANG, CN  
[73] ACCENTURE GLOBAL SERVICES  
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[86] (2916454)  
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[51] **Int.Cl. G06Q 30/0601 (2023.01) G06T  
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[25] EN  
[54] **SCREENSHOT-BASED E-  
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[54] **E-COMMERCE UTILISANT DES  
CAPTURES D'ECRAN**  
[72] CHEUNG, DAN, US  
[72] GOLDBERG, ERIC ROLAND, US  
[72] MEHTA, SHAN SHRIKANT, US  
[72] CASTILLO, RALPH CHRISTOPHER  
S., US  
[72] ONG, DARREL ALVIN N., US  
[72] ARNALDO, ERIC JOHN LI, US  
[73] PERSONALIZED BEAUTY  
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[13] C

[51] **Int.Cl. C12N 15/82 (2006.01) C12N 9/02 (2006.01)**  
[25] EN  
[54] **PLANTS HAVING INCREASED TOLERANCE TO HERBICIDES**  
[54] **PLANTES PRESENTANT UNE TOLERANCE ACCRUE A DES HERBICIDES**  
[72] APONTE, RAPHAEL, DE  
[72] TRESCH, STEFAN, DE  
[72] WITSCHEL, MATTHIAS, DE  
[72] LERCHL, JENS, DE  
[72] MASSA, DARIO, DE  
[72] SEISER, TOBIAS, DE  
[72] MIETZNER, THOMAS, DE  
[72] PAULIK, JILL MARIE, US  
[72] BROMMER, CHAD, US  
[73] BASF AGRO B.V., NL  
[85] 2016-02-05  
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[13] C

[51] **Int.Cl. C08B 37/14 (2006.01) A61F 7/02 (2006.01) C02F 1/28 (2006.01) C02F 1/56 (2006.01) C08B 30/00 (2006.01) C08B 37/04 (2006.01) C08J 3/07 (2006.01) C08J 3/20 (2006.01) C08J 3/24 (2006.01) C08L 3/02 (2006.01) C08L 5/04 (2006.01) C08L 5/14 (2006.01) C09K 17/32 (2006.01) C22B 1/244 (2006.01)**  
[25] EN  
[54] **BIOPOLYMERS HAVING COILED NANOSTRUCTURES AND PROCESSES INCORPORATING THE BIOPOLYMERS**  
[54] **BIOPOLYMERES AYANT DES NANOSTRUCTURES ENROULEES ET PROCEDES INCORPORANT LES BIOPOLYMERES**  
[72] AGHAEI MOGHADAM, MOSTAFA, CA  
[72] ZANGENEH, ALMA, CA  
[73] BIOPOLYNET INC., CA  
[86] (2920860)  
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[54] **SYSTEME ET PROCEDE POUR REPERER UN EVENEMENT MOTEUR**  
[72] BATAL, IYAD, US  
[72] BIZUB, JEFFREY JACOB, US  
[72] MATTHEWS, BRETT ALEXANDER, US  
[73] INNIO NORTH AMERICA HOLDING INC., US  
[86] (2923277)  
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[11] **2,930,573**  
[13] C

[51] **Int.Cl. A61K 35/50 (2015.01)**  
[25] EN  
[54] **COMPOSITIONS COMPRISING HUMAN PLACENTAL PERFUSATE CELLS, SUBPOPULATIONS THEREOF, AND THEIR USES**  
[54] **COMPOSITIONS CONTENANT DES CELLULES DE PERFUSAT PLACENTAIRE HUMAIN, DES SOUS-POPULATIONS DE CELLES-CI, ET LEURS UTILISATIONS**  
[72] GURNEY, JODI P., US  
[72] ZHANG, XIAOKUI, US  
[72] HERB, STACY, US  
[72] HARIRI, ROBERT J., US  
[73] CELULARITY INC., US  
[85] 2016-05-12  
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[51] **Int.Cl. G05B 19/042 (2006.01) G05B 17/02 (2006.01)**  
[25] EN  
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[54] **MISE A JOUR DE MODELES DOMOTIQUES**  
[72] HOLLEY, ERIC, US  
[73] DISH TECHNOLOGIES L.L.C., US  
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[86] 2014-09-03 (PCT/US2014/053876)  
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[51] **Int.Cl. B60R 3/02 (2006.01)**  
[25] EN  
[54] **RETRACTABLE STEP AND SIDE BAR ASSEMBLY FOR RAISED VEHICLE**  
[54] **ENSEMBLE DE BARRE LATERALE ET MARCHEPIED RETRACTABLE DESTINE A UN VEHICULE SURELEVE**  
[72] SMITH, ANTHONY NICHOLAS, US  
[72] BAJZA, ERIC CHARLES, US  
[72] BIBB, WILLIAM FRANKLIN, VI, US  
[73] LUND MOTION PRODUCTS, INC., US  
[86] (2931880)  
[87] (2931880)  
[22] 2016-06-01  
[30] US (62/171,780) 2015-06-05  
[30] US (14/846,433) 2015-09-04

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[11] **2,932,828**  
[13] C

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[25] EN  
[54] **OPTIMIZING SELECTION OF DRIVERS FOR TRANSPORT REQUESTS**  
[54] **OPTIMISATION DE LA SELECTION DE CONDUCTEURS POUR DES DEMANDES DE TRANSPORT**  
[72] SWEENEY, MATTHEW, US  
[72] BARRETO, AMOS, US  
[72] CUI, SOPHIA, US  
[72] KORSOS, LASZLO, US  
[73] UBER TECHNOLOGIES, INC., US  
[85] 2016-06-03  
[86] 2014-12-10 (PCT/US2014/069586)  
[87] (WO2015/089207)  
[30] US (61/914,890) 2013-12-11  
[30] US (14/566,148) 2014-12-10  
[30] US (14/566,190) 2014-12-10

[11] **2,932,923**  
[13] C

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[25] EN  
[54] **IN-VEHICLE DATA ENTRY**  
[54] **ENTREE DE DONNEES A BORD DE VEHICULE**  
[72] BETANCOURT, ERNEST, US  
[72] PESCHIO, VINCE, US  
[73] EPONA, LLC, US  
[86] (2932923)  
[87] (2932923)  
[22] 2016-06-14  
[30] US (14/739,683) 2015-06-15

[11] **2,933,365**  
[13] C

- [51] **Int.Cl. B64D 41/00 (2006.01) B64D 33/00 (2006.01)**  
[25] EN  
[54] **AUXILIARY POWER UNIT WITH INTERCOOLER**  
[54] **MODULE D'ALIMENTATION AUXILIAIRE DOTE D'UN REFROIDISSEUR INTERMEDIAIRE**  
[72] ULLYOTT, RICHARD, CA  
[72] JULIEN, ANDRE, CA  
[72] THOMASSIN, JEAN, CA  
[72] JONES, ANTHONY, GB  
[73] PRATT & WHITNEY CANADA CORP., CA  
[86] (2933365)  
[87] (2933365)  
[22] 2016-06-16  
[30] US (14/750,179) 2015-06-25

[11] **2,934,959**  
[13] C

- [51] **Int.Cl. C12N 15/113 (2010.01) C12N 15/82 (2006.01)**  
[25] EN  
[54] **TISSUE-SPECIFIC EXPRESSION AND HYBRID PLANT PRODUCTION**  
[54] **EXPRESSION SPECIFIQUE AU TISSU ET PRODUCTION DE PLANTE HYBRIDE**  
[72] KUMAR, SANDEEP, US  
[72] GERMAN, MARCELO A., US  
[72] CORAM, TRISTAN, US  
[72] WRIGHT, TERRY, US  
[73] CORTEVA AGRISCIENCE LLC, US  
[85] 2016-06-22  
[86] 2014-12-31 (PCT/US2014/073038)  
[87] (WO2015/103417)  
[30] US (61/922,603) 2013-12-31  
[30] US (14/577,887) 2014-12-19

[11] **2,938,110**  
[13] C

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[25] EN  
[54] **AUXILIARY POWER UNIT WITH COMBINED COOLING OF GENERATOR**  
[54] **MODULE D'ALIMENTATION AUXILIAIRE A REFROIDISSEMENT COMBINE DU GENERATEUR**  
[72] JONES, ANTHONY, US  
[72] JULIEN, ANDRE, CA  
[72] MENHEERE, DAVID, CA  
[72] THOMASSIN, JEAN, CA  
[72] ULLYOTT, RICHARD, CA  
[73] PRATT & WHITNEY CANADA CORP., CA  
[86] (2938110)  
[87] (2938110)  
[22] 2016-08-04  
[30] US (15/227,483) 2016-08-03  
[30] US (62/202,275) 2015-08-07

[11] **2,940,297**  
[13] C

- [51] **Int.Cl. A61B 5/00 (2006.01) A61B 1/06 (2006.01) A61B 6/02 (2006.01)**  
[25] EN  
[54] **METHODS AND SYSTEMS FOR INTRAOPERATIVELY CONFIRMING LOCATION OF TISSUE STRUCTURES**  
[54] **PROCEDES ET SYSTEMES DE CONFIRMATION PEROPERATOIRE D'EMPLACEMENT DE STRUCTURES DE TISSU**  
[72] WOOD, MICHAEL, CA  
[72] PIRON, CAMERON, CA  
[72] YUWARAJ, MURUGATHAS, CA  
[72] SELA, GAL, CA  
[72] RICHMOND, JOSHUA, CA  
[72] MCFADYEN, STEPHEN, CA  
[73] SYNAPTIVE MEDICAL INC., CA  
[85] 2016-08-22  
[86] 2014-09-15 (PCT/CA2014/050877)  
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[25] EN

[54] **SYSTEMS AND METHODS FOR CUSTOMER DEACTIVATION OF SECURITY ELEMENTS**

[54] **SYSTEMES ET PROCEDES DE DESACTIVATION PAR LE CLIENT D'ELEMENTS DE SECURITE**

[72] RASBAND, PAUL BRENT, US

[72] DREW, DOUGLAS A., US

[72] HALL, STEWART E., US

[72] PATTERSON, HUBERT A., US

[72] VAN NEST, NANCY LEE, US

[73] SENSORMATIC ELECTRONICS LLC, US

[85] 2016-08-22

[86] 2015-01-16 (PCT/US2015/011772)

[87] (WO2015/112446)

[30] US (61/929,831) 2014-01-21

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[13] C

[51] **Int.Cl. H04L 9/32 (2006.01) H04L 9/30 (2006.01)**

[25] EN

[54] **AUTHENTICATION OF VIRTUAL MACHINE IMAGES USING DIGITAL CERTIFICATES**

[54] **AUTHENTIFICATION D'IMAGES DE MACHINE VIRTUELLE AU MOYEN DE CERTIFICATS NUMERIQUES**

[72] SCHOOF, ALEXANDER EDWARD, US

[72] DOANE, ANDREW JEFFREY, US

[72] FITZGERALD, ROBERT ERIC, US

[72] CIGNETTI, TODD LAWRENCE, US

[73] AMAZON TECHNOLOGIES, INC., US

[85] 2016-08-26

[86] 2015-03-03 (PCT/US2015/018534)

[87] (WO2015/134533)

[30] US (14/196,818) 2014-03-04

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[13] C

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[25] EN

[54] **MULTI-LAYER SUBSTRATE AND FABRICATION METHOD**

[54] **SUBSTRAT MULTICOUCHE ET PROCEDE DE FABRICATION**

[72] CHALEIX, DANIEL, FR

[72] SILBERBERG, ERIC, BE

[72] SCHMITZ, BRUNO, BE

[72] VANDEN EYNDE, XAVIER, BE

[72] PACE, SERGIO, BE

[73] ARCELORMITTAL, LU

[85] 2016-09-28

[86] 2014-04-04 (PCT/IB2014/000485)

[87] (WO2015/150850)

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[11] **2,946,804**  
[13] C

[51] **Int.Cl. A63H 33/04 (2006.01) A63H 33/08 (2006.01)**

[25] EN

[54] **A TOY CONSTRUCTION SYSTEM WITH FUNCTION CONSTRUCTION ELEMENTS**

[54] **SYSTEME DE CONSTRUCTION DE JOUET AVEC DES ELEMENTS DE CONSTRUCTION FONCTIONNELS**

[72] KAERSGAARD, RASMUS BISENBAKKER, DK

[72] SORENSEN, HENRIK COLFACH, DK

[72] HANSEN, ERIK, DK

[72] LUND, HENRIK HAUTOP, DK

[73] LEGO A/S, DK

[85] 2016-10-24

[86] 2015-05-12 (PCT/EP2015/060486)

[87] (WO2015/173246)

[30] DK (PA201470289) 2014-05-15

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[13] C

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[25] EN

[54] **ESTABLISHMENT OF A SECURE SESSION BETWEEN A CARD READER AND A MOBILE DEVICE**

[54] **ETABLISSEMENT D'UNE SESSION SECURISEE ENTRE UN LECTEUR DE CARTE ET UN DISPOSITIF MOBILE**

[72] GUISE, MAX JOSEPH, US

[72] WADDLE, JASON, US

[72] DAI ZOVI, DINO, US

[73] BLOCK, INC., US

[85] 2016-11-08

[86] 2015-05-07 (PCT/US2015/029763)

[87] (WO2015/171939)

[30] US (14/273,447) 2014-05-08

[30] US (14/273,449) 2014-05-08

[30] US (14/614,350) 2015-02-04

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[51] **Int.Cl. C08G 18/48 (2006.01) C09D 5/02 (2006.01) C09D 175/06 (2006.01)**

[25] EN

[54] **POLYETHER-URETHANE-UREA ADDITIVES FOR BLOCK RESISTANCE AND OPEN TIME**

[54] **ADDITIFS DE POLY(ETHER-URETHANE-UREE) POUR RESISTANCE AU BLOCAGE ET TEMPS OUVERT**

[72] YEUNG, KIMY, US

[72] VAN DYK, ANTONY K., US

[72] DEROCHER, JONATHAN, US

[72] ARTURO, STEVEN, US

[72] RABASCO, JOHN J., US

[73] DOW GLOBAL TECHNOLOGIES LLC, US

[73] ROHM AND HAAS COMPANY, US

[86] (2948961)

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[22] 2016-11-18

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[13] C

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[25] EN  
[54] **RSV F PROTEIN MUTANTS**  
[54] **MUTANTS DE PROTEINE RSV F**  
[72] CHE, YE, US  
[72] DORMITZER, PHILIP RALPH, US  
[72] GRIBENKO, ALEXEY VYACHESLAVOVICH, US  
[72] HANDKE, LUKE DAVID, US  
[72] PRASAD, AVVARI KRISHNA, US  
[72] QIU, XIAYANG, US  
[72] RUPPEN, MARK EDWARD, US  
[72] SONG, XI, US  
[72] SWANSON, KENA ANNE, US  
[72] KODALI, SRINIVAS, US  
[72] XU, XIN, US  
[72] EFFEREN, KARIANN SWEENEY, US  
[72] CAI, PING, US  
[72] TOMPKINS, KRISTIN RACHAEL, US  
[72] NUNEZ, LORNA DEL PILAR, US  
[73] PFIZER INC., US  
[86] (2952131)  
[87] (2952131)  
[22] 2016-12-19  
[30] US (62/387,270) 2015-12-23  
[30] US (62/421,184) 2016-11-11

[11] **2,953,069**  
[13] C

[51] **Int.Cl. A61M 11/04 (2006.01) A24F 40/40 (2020.01) A61K 9/72 (2006.01) A61K 31/352 (2006.01) A61M 15/00 (2006.01) A61M 16/20 (2006.01)**

[25] EN  
[54] **METHOD AND DEVICE FOR VAPORIZATION AND INHALATION OF ISOLATED SUBSTANCES**  
[54] **PROCEDE ET DISPOSITIF UTILISABLES EN VUE DE LA VAPORISATION ET DE L'INHALATION DE SUBSTANCES ISOLEES**  
[72] DAVIDSON, PERRY, IL  
[72] SCHORR, AARON, IL  
[72] KROLL, ASAF, IL  
[72] SCHWARTZ, BINYAMIN, IL  
[73] SYQE MEDICAL LTD., IL  
[85] 2016-12-20  
[86] 2015-06-30 (PCT/IL2015/050673)  
[87] (WO2016/001921)  
[30] US (62/019,225) 2014-06-30  
[30] US (62/035,588) 2014-08-11  
[30] US (62/085,772) 2014-12-01  
[30] US (62/086,208) 2014-12-02  
[30] US (62/164,710) 2015-05-21

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[13] C

[51] **Int.Cl. A01N 63/20 (2020.01) A01H 5/10 (2018.01) A01H 17/00 (2006.01) A01P 21/00 (2006.01) C05F 11/08 (2006.01) C12N 1/14 (2006.01) C12N 1/20 (2006.01)**

[25] EN  
[54] **ENDOPHYTES, ASSOCIATED COMPOSITIONS, AND METHODS OF USE THEREOF**  
[54] **ENDOPHYTES, COMPOSITIONS ASSOCIEES ET LEURS METHODES D'UTILISATION**  
[72] VON MALTZAHN, GEOFFREY, US  
[72] SAMAYOA, PHILLIP, US  
[72] FLAVELL, RICHARD BAILEY, US  
[72] TOLEDO, GERARDO V., US  
[72] LEFF, JONATHAN W., US  
[72] MARQUEZ, LUIS MIGUEL, US  
[72] JOHNSTON, DAVID MORRIS, US  
[72] DJONOVIC, SLAVICA, US  
[72] MILLET, YVES ALAIN, US  
[72] SADOWSKI, CRAIG, US  
[72] LYFORD, JEFFREY, US  
[72] AMBROSE, KAREN, US  
[72] ZHANG, XUECHENG, US  
[73] INDIGO AG, INC., US  
[85] 2016-12-23  
[86] 2015-06-26 (PCT/US2015/038187)  
[87] (WO2015/200902)  
[30] US (62/017,813) 2014-06-26  
[30] US (62/017,796) 2014-06-26  
[30] US (62/017,809) 2014-06-26  
[30] US (62/017,815) 2014-06-26  
[30] US (62/017,816) 2014-06-26  
[30] US (62/017,818) 2014-06-26  
[30] US (PCT/US2014/044427) 2014-06-26  
[30] US (62/098,296) 2014-12-30  
[30] US (62/098,298) 2014-12-30  
[30] US (62/098,299) 2014-12-30  
[30] US (62/098,302) 2014-12-30  
[30] US (62/098,304) 2014-12-30

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[25] EN

[54] **PROCESSES FOR PRODUCING INDUSTRIAL PRODUCTS FROM PLANT LIPIDS**

[54] **PROCEDES DE PRODUCTION DE PRODUITS INDUSTRIELS A PARTIR DE LIPIDES VEGETAUX**

[72] VANHERCKE, THOMAS, AU  
[72] PETRIE, JAMES ROBERTSON, AU  
[72] EL TAHCHY, ANNA, AU  
[72] SINGH, SURINDER PAL, AU  
[72] REYNOLDS, KYLE, AU  
[72] LIU, QING, AU  
[72] LEITA, BENJAMIN ALDO, AU  
[73] NUSEED GLOBAL INNOVATION LTD, GB

[85] 2017-01-04  
[86] 2015-07-07 (PCT/AU2015/050380)  
[87] (WO2016/004473)  
[30] AU (2014902617) 2014-07-07  
[30] AU (2015900084) 2015-01-13  
[30] AU (2015900284) 2015-01-30

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[11] **2,955,627**  
[13] C

[51] **Int.Cl. C04B 35/645 (2006.01) C04B 35/50 (2006.01)**

[25] EN

[54] **METHODS OF PRODUCING CERAMIC MOLDED PRODUCT AND TRANSPARENT SINTERED BODY**

[54] **METHODES DE PRODUCTION DE PRODUIT MOULE EN CERAMIQUE ET CORPS FRITTE TRANSPARENT**

[72] TANAKA, KEITA, JP  
[73] SHIN-ETSU CHEMICAL CO., LTD., JP

[86] (2955627)  
[87] (2955627)  
[22] 2017-01-19  
[30] JP (2016-013462) 2016-01-27

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[11] **2,958,313**  
[13] C

[51] **Int.Cl. E04F 13/076 (2006.01) E04F 13/075 (2006.01) E04F 13/18 (2006.01)**

[25] EN

[54] **COMPOSITE INSULATING PANEL**

[54] **PANNEAU ISOLANT EN COMPOSITE**

[72] CULPEPPER, PATRICK M., US  
[72] CULPEPPER, JASON L., US  
[73] PROGRESSIVE FOAM TECHNOLOGIES, INC., US

[86] (2958313)  
[87] (2958313)  
[22] 2017-02-17  
[30] US (62/296,465) 2016-02-17  
[30] US (62/370,895) 2016-08-04  
[30] US (62/441,657) 2017-01-03

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[13] C

[51] **Int.Cl. F03G 3/08 (2006.01) H02J 15/00 (2006.01) H02K 5/04 (2006.01) H02K 7/02 (2006.01)**

[25] EN

[54] **ENERGY STORAGE MANAGEMENT SYSTEM**

[54] **SYSTEME DE GESTION DE STOCKAGE D'ENERGIE**

[72] PAIZ, MATT, US  
[72] MARTINEZ, ERIC, US  
[72] NGUYEN, TON, US  
[72] NGUYEN, KHANG, US  
[73] SAINT-AUGUSTIN CANADA ELECTRIC INC., CA

[85] 2017-03-10  
[86] 2015-09-12 (PCT/US2015/049857)  
[87] (WO2016/040912)  
[30] US (62/049,496) 2014-09-12

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[11] **2,962,503**  
[13] C

[51] **Int.Cl. B28B 19/00 (2006.01) B05D 3/00 (2006.01) B05D 5/00 (2006.01) E04B 1/94 (2006.01) E04C 3/12 (2006.01)**

[25] EN

[54] **FIRE BARRIER BUILDING PRODUCT AND METHOD AND SYSTEM FOR MAKING SAME**

[54] **PRODUIT DE CONSTRUCTION ANTI-FEU ET PROCEDE ET SYSTEME DE FABRICATION ASSOCIES**

[72] HUDDY, MICHAEL D., US  
[73] PACIFIC WOODTECH CORPORATION, US

[85] 2017-03-23  
[86] 2015-10-19 (PCT/US2015/056244)  
[87] (WO2016/064741)  
[30] US (62/066,669) 2014-10-21

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[11] **2,963,066**  
[13] C

[51] **Int.Cl. A61K 31/663 (2006.01) A61P 19/02 (2006.01)**

[25] EN

[54] **USE OF NERIDRONIC ACID OR OF ITS SALT FOR THE TREATMENT OF OSTEOARTHRISIS**

[54] **UTILISATION D'ACIDE NERIDRONIQUE OU DE SON SEL POUR LE TRAITEMENT DE L'ARTHROSE**

[72] MASSIMO, VARENNA, IT  
[73] ABIOTEN PHARMA SPA, IT

[85] 2017-03-29  
[86] 2015-10-15 (PCT/IB2015/057929)  
[87] (WO2016/059594)  
[30] IT (MI2014A001794) 2014-10-15

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[11] **2,963,444**  
[13] C

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[25] EN  
[54] **BIOCHARS AND BIOCHAR TREATMENT PROCESSES**  
[54] **BIOCHARBONS ET PROCESSUS DE TRAITEMENT DE BIOCHARBON**  
[72] BONTCHEV, RANKO, US  
[72] KIM, HAN SUK, US  
[72] BELCHER, RICHARD WILSON, US  
[72] JARAND, MARK L., US  
[73] CARBON TECHNOLOGY HOLDINGS, LLC, US  
[85] 2017-03-31  
[86] 2015-10-01 (PCT/US2015/053583)  
[87] (WO2016/054431)  
[30] US (62/058,445) 2014-10-01  
[30] US (62/058,472) 2014-10-01  
[30] US (62/162,219) 2015-05-15

[11] **2,963,642**  
[13] C

- [51] **Int.Cl. F04B 47/12 (2006.01) E21B 34/08 (2006.01) E21B 43/12 (2006.01)**  
[25] EN  
[54] **GAS-LIFT PLUNGER**  
[54] **PISTON DE POMPAGE PNEUMATIQUE**  
[72] KUYKENDALL, SCHUYLER, US  
[73] EPIC LIFT SYSTEMS LLC, US  
[86] (2963642)  
[87] (2963642)  
[22] 2017-04-07  
[30] US (62/324,104) 2016-04-18

[11] **2,964,689**  
[13] C

- [51] **Int.Cl. G01S 7/521 (2006.01) B63B 21/66 (2006.01) B63G 8/39 (2006.01) G01V 1/38 (2006.01)**  
[25] EN  
[54] **HITCHING A FISH UP TO A TOWED SONAR**  
[54] **ACCROCHAGE D'UN POISSON DANS UN SONAR REMORQUE**  
[72] PEDEN, BENOIT, FR  
[72] CADALEN, FRANCOIS, FR  
[72] LONGUET, JEAN-PHILIPPE, FR  
[72] BODILIS, MATHIEU, FR  
[72] HOFMANN, PIERRE, FR  
[73] THALES, FR  
[85] 2017-04-13  
[86] 2015-10-13 (PCT/EP2015/073686)  
[87] (WO2016/059056)  
[30] FR (1402310) 2014-10-14

[11] **2,965,731**  
[13] C

- [51] **Int.Cl. G10L 19/008 (2013.01)**  
[25] EN  
[54] **PARAMETRIC MIXING OF AUDIO SIGNALS**  
[54] **MELANGE PARAMETRIQUE DE SIGNAUX AUDIO**  
[72] VILLEMOES, LARS, SE  
[72] PURNHAGEN, HEIKO, SE  
[72] LEHTONEN, HEIDI-MARIA, SE  
[73] DOLBY INTERNATIONAL AB, IE  
[85] 2017-04-25  
[86] 2015-10-28 (PCT/EP2015/075022)  
[87] (WO2016/066705)  
[30] US (62/073,462) 2014-10-31  
[30] US (62/167,711) 2015-05-28

[11] **2,965,745**  
[13] C

- [51] **Int.Cl. C07K 16/46 (2006.01) A61K 39/395 (2006.01) C07K 14/705 (2006.01) C07K 16/28 (2006.01)**  
[25] EN  
[54] **CD3/CD38 T CELL RETARGETING HETERO-DIMERIC IMMUNOGLOBULINS AND METHODS OF THEIR PRODUCTION**  
[54] **IMMUNOGLOBULINES HETERO-DIMERES REICBLANT DES LYMPHOCYTES T CD3/CD38 ET LEURS PROCEDES DE PRODUCTION**  
[72] OLLIER, ROMAIN, CH  
[72] HOU, SAMUEL, CH  
[72] LISSILAA, RAMI, CH  
[72] SKEGRO, DARKO, CH  
[72] BACK, JONATHAN, CH  
[73] ICHNOS SCIENCES SA, CH  
[85] 2017-04-25  
[86] 2015-11-03 (PCT/EP2015/075628)  
[87] (WO2016/071355)  
[30] EP (PCT/EP2014/073738) 2014-11-04  
[30] EP (15167034.6) 2015-05-08

[11] **2,968,457**  
[13] C

- [51] **Int.Cl. A61K 39/395 (2006.01) C12N 5/0783 (2010.01) A61K 35/17 (2015.01) C07K 16/28 (2006.01) G01N 33/53 (2006.01)**  
[25] EN  
[54] **USE OF ANTIBODIES FOR ENRICHMENT OF ENGINEERED T CELLS WITH EXOGENOUS IMMUNE RECEPTORS AND ANTIBODIES FOR USE IN DEPLETION OF ENGINEERED T CELLS**  
[54] **UTILISATION D'ANTICORPS POUR L'ENRICHISSEMENT DE LYMPHOCYTES T GENETIQUEMENT MODIFIES AVEC DES RECEPTEURS IMMUNITAIRES EXOGENES ET ANTICORPS POUR UNE UTILISATION DANS LA DEPLETION DES LYMPHOCYTES T GENETIQUEMENT MODIFIES**  
[72] KUBALL, JURGEN HERBERT ERNST, NL  
[73] UMC UTRECHT HOLDING B.V., NL  
[85] 2017-05-19  
[86] 2015-11-20 (PCT/EP2015/077286)  
[87] (WO2016/079333)  
[30] EP (14194125.2) 2014-11-20

[11] **2,969,381**  
[13] C

- [51] **Int.Cl. F24F 3/16 (2021.01) F24F 11/39 (2018.01) B01D 46/42 (2006.01) F24F 13/28 (2006.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR PREDICTING HVAC FILTER CHANGE**  
[54] **SYSTEMES ET PROCEDES DE PREDICTION DE CHANGEMENT DE FILTRE HVAC**  
[72] FOX, ANDREW R., US  
[72] LOBNER, ERIC C., US  
[72] MEYER, THERESA M., US  
[72] STANKIEWICZ, BRIAN J., US  
[73] 3M INNOVATIVE PROPERTIES COMPANY, US  
[85] 2017-05-30  
[86] 2015-11-25 (PCT/US2015/062591)  
[87] (WO2016/089688)  
[30] US (62/085,939) 2014-12-01

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December 5, 2023**

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[11] **2,969,796**  
[13] C

[51] **Int.Cl. E21B 43/12 (2006.01) E21B 47/07 (2012.01) E21B 43/14 (2006.01) E21B 43/24 (2006.01) E21B 47/00 (2012.01) E21B 47/06 (2012.01)**

[25] EN

[54] **METHODS AND SYSTEMS FOR AUTOMATED PROCESS CONTROL FOR IN SITU HYDROCARBON RECOVERY**

[54] **METHODES ET SYSTEMES DE CONTROLE DE PROCESSUS AUTOMATISE DESTINE A LA RECUPERATION D'HYDROCARBURE SUR PLACE**

[72] KADALI, RAMESH, CA  
[72] JAMES, BRUCE, CA  
[72] SHUKEIR, ELIYYA, CA  
[72] QI, FEI, CA  
[72] FEDENCZUK, LEON, CA  
[72] PEHLKE, TRENT, CA  
[73] SUNCOR ENERGY INC., CA  
[86] (2969796)  
[87] (2969796)  
[22] 2017-06-06  
[30] US (62/346,529) 2016-06-06

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[11] **2,972,243**  
[13] C

[51] **Int.Cl. G09F 19/02 (2006.01) H02S 10/00 (2014.01) A63H 29/22 (2006.01) B63G 8/14 (2006.01) G05D 3/14 (2006.01) H01F 7/14 (2006.01)**

[25] EN

[54] **PRESSURE EQUALIZATION STRUCTURE AND MOTOR IMPROVEMENT FOR FLUID-IMMERSED SELF-ROTATING DISPLAYS**

[54] **STRUCTURE D'EQUILIBRAGE DE PRESSION ET PERFECTIONNEMENT APORTE A UN MOTEUR POUR ECRANS AUTO-ROTATIFS IMMERGES DANS UN FLUIDE**

[72] FRENCH, WILLIAM W., US  
[73] TURTLETECH DESIGN, INC., US  
[85] 2017-06-23  
[86] 2015-12-24 (PCT/US2015/000453)  
[87] (WO2016/105561)  
[30] US (62/096,983) 2014-12-26  
[30] US (62/152,714) 2015-04-24

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[11] **2,972,797**  
[13] C

[51] **Int.Cl. C07D 487/04 (2006.01) A61K 31/519 (2006.01)**

[25] EN

[54] **PYRROLO AND PYRAZOLOPYRIMIDINES AS UBIQUITIN-SPECIFIC PROTEASE 7 INHIBITORS**

[54] **PYRROLOPYRIMIDINES ET PYRAZOLOPYRIMIDINES UTILISEES EN TANT QU'INHIBITEURS DE LA PROTEASE SPECIFIQUE DE L'UBIQUITINE 7**

[72] IOANNIDIS, STEPHANOS, US  
[72] TALBOT, ADAM CHARLES, US  
[72] FOLLOWS, BRUCE, US  
[72] BUCKMELTER, ALEXANDRE JOSEPH, US  
[72] WANG, MINGHUA, US  
[72] CAMPBELL, ANN-MARIE, US  
[72] SCHMIDT, DARBY RYE, US  
[72] GUERIN, DAVID JOSEPH, US  
[72] CARAVELLA, JUSTIN A., US  
[72] DIEBOLD, R. BRUCE, US  
[72] ERICSSON, ANNA, US  
[72] LANCIA, DAVID, JR., US  
[73] VALO HEALTH, INC., US  
[85] 2017-06-29  
[86] 2015-12-29 (PCT/US2015/067831)  
[87] (WO2016/109515)  
[30] US (62/098,141) 2014-12-30

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[11] **2,980,666**  
[13] C

[51] **Int.Cl. B60C 23/20 (2006.01) B60C 23/04 (2006.01)**

[25] FR

[54] **METHOD FOR DETERMINING THE TEMPERATURE OF AN INTERNAL PART OF THE MATERIALS OF A TYRE**

[54] **METHODE DE DETERMINATION DE LA TEMPERATURE D'UNE PARTIE INTERNE DES MATERIAUX D'UN PNEUMATIQUE**

[72] SPINNLER, OLIVIER, FR  
[72] DONDEY, PHILIPPE, FR  
[73] COMPAGNIE GENERALE DES ETABLISSEMENTS MICHELIN, FR  
[73] MICHELIN RECHERCHE ET TECHNIQUE S.A., CH  
[85] 2017-09-22  
[86] 2016-03-21 (PCT/FR2016/050616)  
[87] (WO2016/151226)  
[30] FR (1552412) 2015-03-24

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[11] **2,981,411**  
[13] C

[51] **Int.Cl. A63G 9/04 (2006.01) A63G 31/02 (2006.01)**

[25] EN

[54] **ROTATABLE PLAY DEVICE**

[54] **DISPOSITIF DE JEU ROTATIF**

[72] NORQUIST, THOMAS ROBERT, US  
[72] BLACKWOOD, KIM CORVIN, US  
[73] PLAYCORE WISCONSIN, INC., US  
[86] (2981411)  
[87] (2981411)  
[22] 2017-10-04  
[30] US (15/363,820) 2016-11-29  
[30] US (62/406,791) 2016-10-11

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[11] **2,981,969**  
[13] C

[51] **Int.Cl. C12N 15/13 (2006.01) A61K 39/42 (2006.01) A61P 31/16 (2006.01) C07K 16/10 (2006.01) C07K 16/46 (2006.01) C12P 21/08 (2006.01)**

[25] EN

[54] **HUMANIZED INFLUENZA MONOCLONAL ANTIBODIES AND METHODS OF USE THEREOF**

[54] **ANTICORPS MONOCLONAUX HUMANISES DIRIGES CONTRE LE VIRUS DE LA GRIPPE ET LEURS PROCEDES D'UTILISATION**

[72] MARASCO, WAYNE A., US  
[73] DANA-FARBER CANCER INSTITUTE, INC., US  
[85] 2017-10-05  
[86] 2016-04-08 (PCT/US2016/026800)  
[87] (WO2016/164835)  
[30] US (62/144,729) 2015-04-08

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5 décembre 2023**

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[11] **2,982,269**  
[13] C

[51] **Int.Cl. C07F 7/08 (2006.01) A61K 51/04 (2006.01) C07F 13/00 (2006.01) C07F 19/00 (2006.01)**

[25] EN

[54] **HETEROAROMATIC SILICON-FLUORIDE-ACCEPTORS USEFUL FOR 18F LABELING OF MOLECULES AND BIOMOLECULES, AND METHODS OF PREPARING SAME**

[54] **ACCEPTEURS SILICIUM-FLUORURE HETEROAROMATIQUES UTILES POUR DE MARQUAGE 18F DE MOLECULES, ET METHODES DE PREPARATION**

[72] WALDMANN, CHRISTOPHER MARTIN, US

[72] TOUTOV, ANTON A., US

[72] MURPHY, JENNIFER MARIE, US

[72] GRUBBS, ROBERT H., US

[73] THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, US

[73] CALIFORNIA INSTITUTE OF TECHNOLOGY, US

[85] 2017-10-06

[86] 2016-05-24 (PCT/US2016/033923)

[87] (WO2016/191424)

[30] US (62/166,240) 2015-05-26

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[11] **2,982,608**  
[13] C

[51] **Int.Cl. G16B 30/00 (2019.01) C12Q 1/6809 (2018.01) G16B 20/00 (2019.01)**

[25] EN

[54] **METHOD AND ELECTRONIC SYSTEM FOR PREDICTING AT LEAST ONE FITNESS VALUE OF A PROTEIN, RELATED COMPUTER PROGRAM PRODUCT**

[54] **PROCEDE ET SYSTEME ELECTRONIQUE DE PREDICTION D'AU MOINS UNE VALEUR DE COMPATIBILITE D'UNE PROTEINE, PRODUIT PROGRAMME D'ORDINATEUR CORRESPONDANT**

[72] FONTAINE, NICOLAS, FR

[72] CADET, FREDERIC, FR

[73] PEACCEL, FR

[85] 2017-10-12

[86] 2016-04-14 (PCT/EP2016/058287)

[87] (WO2016/166253)

[30] EP (15305552.0) 2015-04-14

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[11] **2,982,665**  
[13] C

[51] **Int.Cl. A61B 17/88 (2006.01) A61B 17/70 (2006.01)**

[25] EN

[54] **SYSTEM, DEVICE AND METHOD FOR DELIVERY OF BIOMATERIALS FOR FRACTURE FIXATION**

[54] **SYSTEME, DISPOSITIF ET PROCEDE D'ADMINISTRATION DE BIOMATERIAUX POUR FIXATION DE FRACTURE**

[72] INSLEY, GERARD MICHAEL, IE

[72] MADDEN, KEVIN DAVID, IE

[72] RUSSELL, DAVID, IE

[72] PROCTER, PHILIP, FR

[72] O' SULLIVAN, CAROL, IE

[72] MURRAY, KIERAN, IE

[73] CELGENTEK LIMITED, IE

[85] 2017-10-12

[86] 2016-04-15 (PCT/EP2016/058461)

[87] (WO2016/166350)

[30] US (62/147,718) 2015-04-15

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[11] **2,984,314**  
[13] C

[51] **Int.Cl. E06B 1/52 (2006.01)**

[25] EN

[54] **MODULAR CHANNEL ASSEMBLIES FOR DOORS**

[54] **ASSEMBLAGES DE CANAL MODULAIRE DESTINES A DES PORTES**

[72] RABY, LARRY, US

[72] SHARIFI, GISELE, US

[72] EVERITT, STEVE, US

[73] ASSA ABLOY DOOR GROUP INC., US

[86] (2984314)

[87] (2984314)

[22] 2017-10-31

[30] US (62/415,803) 2016-11-01

[30] US (15/793,480) 2017-10-25

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[11] **2,985,979**  
[13] C

[51] **Int.Cl. G01G 19/414 (2006.01) G16H 20/60 (2018.01) G16H 50/20 (2018.01) G06F 17/18 (2006.01)**

[25] EN

[54] **A PARAMETRIC PROBABILISTIC CONTEXT FREE GRAMMAR FOR FOOD INTAKE**

[54] **GRAMMAIRE NON CONTEXTUELLE PROBABILISTE POUR LA PRISE DE NOURRITURE**

[72] BERGH, CECILIA, SE

[72] SODERSTEN, PER, SE

[72] IOAKEIMIDIS, IOANNIS, SE

[72] PAPAPANAGIOTOU, VASILEIOS, GR

[72] DIOU, CHRISTOS, GR

[72] DELOPOULOS, ANASTASIOS, GR

[73] MANDOMETER AB, SE

[85] 2017-11-14

[86] 2016-04-14 (PCT/SE2016/000018)

[87] (WO2016/167701)

[30] SE (1500181-1) 2015-04-14

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[11] **2,986,080**  
[13] C

[51] **Int.Cl. A61K 38/17 (2006.01) A61K 39/395 (2006.01) A61K 45/00 (2006.01) A61P 1/00 (2006.01) G01N 33/48 (2006.01) G01N 33/53 (2006.01)**

[25] EN

[54] **INHIBITOR OF IGFBP3 FOR THE TREATMENT OF INTESTINAL DISORDERS**

[54] **INHIBITEUR D'IGFBP3 POUR LE TRAITEMENT DES TROUBLES INTESTINAUX**

[72] D'ADDIO, FRANCESCA, IT

[72] FIORINA, PAOLO, IT

[73] OSPEDALE SAN RAFFAELE SRL, IT

[85] 2017-11-15

[86] 2016-06-06 (PCT/EP2016/062790)

[87] (WO2016/193496)

[30] EP (15170679.3) 2015-06-04

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[11] **2,986,848**  
[13] C

[51] **Int.Cl. C07K 16/28 (2006.01) C07K 16/46 (2006.01) C12N 15/13 (2006.01) C12P 21/08 (2006.01)**

[25] EN

[54] **BISPECIFIC ANTIBODY CONSTRUCTS BINDING DLL3 AND CD3**

[54] **CONSTRUCTIONS D'ANTICORPS BISPECIFIQUES SE LIANT A DLL3 ET A CD3**

[72] RAUM, TOBIAS, DE

[72] KUFER, PETER, DE

[72] PENDZIALEK, JOCHEN, DE

[72] BLUEMEL, CLAUDIA, DE

[72] DAHLHOFF, CHRISTOPH, DE

[72] HOFFMANN, PATRICK, DE

[72] LUTTERBUENSE, RALF, DE

[72] NAHRWOLD, ELISABETH, DE

[73] AMGEN RESEARCH (MUNICH) GMBH, DE

[85] 2017-11-22

[86] 2016-08-01 (PCT/EP2016/068285)

[87] (WO2017/021349)

[30] US (62/199,930) 2015-07-31

[30] US (62/290,896) 2016-02-03

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[11] **2,987,076**  
[13] C

[51] **Int.Cl. G01N 21/3559 (2014.01)**

[25] EN

[54] **HOLMIUM OXIDE GLASSES AS CALIBRATION STANDARDS FOR NEAR INFRARED MOISTURE SENSORS**

[54] **VERRES A L'OXYDE D'HOLMIUM COMME STANDARDS D'ETALONNAGE POUR CAPTEURS D'HUMIDITE DANS L'INFRAROUGE PROCHE**

[72] TIXIER, SEBASTIEN, US

[73] HONEYWELL LIMITED, CA

[85] 2017-11-24

[86] 2016-08-24 (PCT/CA2016/000216)

[87] (WO2017/031569)

[30] US (14/836,959) 2015-08-27

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[11] **2,988,069**  
[13] C

[51] **Int.Cl. F22B 37/02 (2006.01) F22B 31/08 (2006.01)**

[25] EN

[54] **TURBINE SYSTEM AND METHOD**

[54] **SYSTEME DE TURBINE ET PROCEDE**

[72] KOVACEVIC, ALEKSANDAR, RS

[73] CASTLE EUROPEAN LIMITED, GB

[85] 2017-12-01

[86] 2016-06-03 (PCT/GB2016/051655)

[87] (WO2016/193759)

[30] GB (1509651.4) 2015-06-03

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[11] **2,988,289**  
[13] C

[51] **Int.Cl. A61K 9/06 (2006.01) A61K 31/496 (2006.01) A61K 31/58 (2006.01) A61K 47/02 (2006.01) A61K 47/08 (2006.01) A61K 47/10 (2017.01) A61K 47/12 (2006.01) A61K 47/22 (2006.01)**

[25] EN

[54] **TOPICAL FORMULATIONS FOR DELIVERY OF HEDGEHOG INHIBITOR COMPOUNDS AND USE THEREOF**

[54] **FORMULATIONS TOPIQUES POUR L'ADMINISTRATION DE COMPOSES INHIBITEURS DU HERISSON ET LEUR UTILISATION**

[72] BROWN, MARC BARRY, GB

[72] STEVENSON, CAMERON ROBERT, GB

[72] EVANS, CHARLES RODNEY GREENAWAY, GB

[73] SOL-GEL TECHNOLOGIES LTD., IL

[85] 2017-12-04

[86] 2016-06-03 (PCT/US2016/035713)

[87] (WO2016/196928)

[30] US (62/171,117) 2015-06-04

[30] US (62/275,185) 2016-01-05

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[11] **2,988,801**  
[13] C

[51] **Int.Cl. G05D 16/20 (2006.01) F02D 41/38 (2006.01) F02M 43/00 (2006.01)**

[25] EN

[54] **HIGH PRESSURE FLUID CONTROL SYSTEM AND METHOD OF CONTROLLING PRESSURE BIAS IN AN END USE DEVICE**

[54] **SYSTEME DE COMMANDE DE FLUIDE A HAUTE PRESSION ET PROCEDE DE COMMANDE DE MODIFICATION DE PRESSION DANS UN DISPOSITIF D'UTILISATION FINALE**

[72] MUMFORD, DAVID K., CA

[72] PUZZUOLI, DEREK, CA

[72] HAAS, JORDAN C., CA

[72] BROWN, WESLEY A., CA

[72] WOO, VICTOR, CA

[72] STEFFEN, JOSHUA W., US

[73] WESTPORT FUEL SYSTEMS CANADA INC., CA

[85] 2017-12-08

[86] 2016-06-10 (PCT/CA2016/050667)

[87] (WO2016/197252)

[30] US (62/175,157) 2015-06-12

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[11] **2,989,133**  
[13] C

[51] **Int.Cl. B01D 53/94 (2006.01) B01D 53/56 (2006.01) B01J 29/068 (2006.01) F01N 3/10 (2006.01) F01N 3/20 (2006.01)**

[25] EN

[54] **EXHAUST GAS TREATMENT SYSTEM**

[54] **SYSTEME DE TRAITEMENT DE GAZ D'ECHAPPEMENT**

[72] XUE, WEN-MEI, US

[72] HOCHMUTH, JOHN K., US

[73] BASF CORPORATION, US

[85] 2017-12-11

[86] 2016-06-10 (PCT/US2016/036980)

[87] (WO2016/201295)

[30] US (62/174,856) 2015-06-12

**Brevets canadiens délivrés  
5 décembre 2023**

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[11] **2,989,495**  
[13] C

[51] **Int.Cl. F25B 49/02 (2006.01) F25B 1/10 (2006.01) F25B 5/02 (2006.01) F25B 9/08 (2006.01)**

[25] EN

[54] **FLASH TANK PRESSURE CONTROL FOR TRANSCRITICAL SYSTEM WITH EJECTOR(S)**

[54] **COMMANDE DE PRESSION DE RESERVOIR DE DETENTE DESTINEE A UN SYSTEME TRANSCRITIQUE DOTE D'EJECTEURS**

[72] NAJAFIFARD, FARDIS, US

[73] HEATCRAFT REFRIGERATION PRODUCTS LLC, US

[86] (2989495)

[87] (2989495)

[22] 2017-12-19

[30] US (15/395,645) 2016-12-30

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[11] **2,990,625**  
[13] C

[51] **Int.Cl. C07F 9/54 (2006.01) C08F 14/18 (2006.01)**

[25] EN

[54] **POLYMERIZATION OF SILYL- AND FLUORO-CONTAINING MONOMERS**

[54] **POLYMERISATION DE MONOMERES CONTENANT DU FLUOR ET DU SILYLE**

[72] SHARPLESS, K. BARRY, US

[72] DONG, JIAJIA, CN

[72] GAO, BING, US

[72] WU, PENG, US

[72] WANG, HUA, US

[73] THE SCRIPPS RESEARCH INSTITUTE, US

[85] 2017-12-21

[86] 2016-06-22 (PCT/US2016/038701)

[87] (WO2016/209920)

[30] US (62/182,755) 2015-06-22

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[11] **2,991,890**  
[13] C

[51] **Int.Cl. G01S 1/04 (2006.01) H04H 20/74 (2009.01) H04W 64/00 (2009.01)**

[25] EN

[54] **APPARATUS AND METHOD FOR GENERATING BOUNDARIES OF SATELLITE COVERAGE BEAMS**

[54] **APPAREIL ET PROCEDE POUR GENERER DES LIMITES DE FAISCEAUX DE COUVERTURE PAR SATELLITE**

[72] SALAMAT, BAHMAN, US

[72] REGUNATHAN, MURALI, US

[72] ROOS, DAVID A., US

[73] HUGHES NETWORK SYSTEMS, LLC, US

[85] 2018-01-09

[86] 2016-07-06 (PCT/US2016/041092)

[87] (WO2017/007811)

[30] US (14/794,948) 2015-07-09

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[11] **2,990,318**  
[13] C

[51] **Int.Cl. C08L 39/02 (2006.01) C08F 2/44 (2006.01) C08L 33/02 (2006.01) C08L 33/26 (2006.01) D21H 17/33 (2006.01) D21H 17/54 (2006.01) D21H 21/10 (2006.01)**

[25] EN

[54] **A METHOD FOR PRODUCING A MATERIAL WITH A NETWORK OF AT LEAST TWO POLYMERS, A PRODUCT THEREOF AND USE OF THE PRODUCT**

[54] **PROCEDE DE PRODUCTION D'UN MATERIAU AVEC UN RESEAU D'AU MOINS DEUX POLYMERES, UN PRODUIT DE CELUI-CI ET L'UTILISATION DU PRODUIT**

[72] CARCELLER, ROSA, FI

[72] HIETANIEMI, MATTI, FI

[72] LEGRAND, SACHA, FI

[72] ZABIHIAN, MARI, FI

[73] KEMIRA OYJ, FI

[85] 2017-12-20

[86] 2016-05-11 (PCT/FI2016/050310)

[87] (WO2016/207480)

[30] FI (20155500) 2015-06-25

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[11] **2,991,401**  
[13] C

[51] **Int.Cl. C12Q 1/68 (2018.01) C07H 21/04 (2006.01) C12P 19/34 (2006.01)**

[25] EN

[54] **METHOD FOR REDUCING PRIMER-DIMER AMPLIFICATION**

[54] **PROCEDE DE REDUCTION DE L'AMPLIFICATION D'AMORCES-DIMERES**

[72] WANG, ZHAOHUI, US

[72] SONG, GANG, US

[73] PILLAR BIOSCIENCES INC., US

[85] 2018-01-03

[86] 2016-06-16 (PCT/US2016/037918)

[87] (WO2017/007586)

[30] US (62/189,686) 2015-07-07

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[11] **2,994,300**  
[13] C

[51] **Int.Cl. A61M 5/19 (2006.01) A61M 5/20 (2006.01) A61M 5/315 (2006.01) A61M 5/34 (2006.01)**

[25] EN

[54] **MIXING AND INJECTION DEVICE WITH STERILITY FEATURES**

[54] **DISPOSITIF DE MELANGE ET D'INJECTION A ELEMENTS DE STERILITE**

[72] CONSTANTINEAU, COLE, US

[72] STANDLEY, ADAM, US

[72] CHAGNON, JEFFREY THOMAS, US

[73] WINDGAP MEDICAL, INC., US

[85] 2018-01-30

[86] 2016-08-15 (PCT/US2016/047023)

[87] (WO2017/027876)

[30] US (62/204,940) 2015-08-13

[30] US (PCT/US2015/045761) 2015-08-18

**Canadian Patents Issued  
December 5, 2023**

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[11] **2,994,808**  
[13] C

[51] **Int.Cl. H01M 10/052 (2010.01) H01M 10/0567 (2010.01) H01M 10/0568 (2010.01) H01M 10/0569 (2010.01)**

[25] EN

[54] **NONAQUEOUS ELECTROLYTE COMPOSITIONS COMPRISING LITHIUM OXALATO PHOSPHATES**

[54] **COMPOSITIONS D'ELECTROLYTE NON AQUEUX COMPRENANT DES OXALATO-PHOSPHATES DE LITHIUM**

[72] ARTHUR, SAMUEL DAVID, US

[72] BURKHARDT, STEPHEN E., US

[72] KOURTAKIS, KOSTANTINOS, US

[72] LEVY-POLIS, BRIAN, US

[72] LIU, JUN J., US

[72] ROELOFS, MARK GERRIT, US

[73] SOLVAY SA, BE

[85] 2018-02-05

[86] 2016-06-03 (PCT/US2016/035739)

[87] (WO2017/023409)

[30] US (62/200,905) 2015-08-04

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[11] **2,996,068**  
[13] C

[51] **Int.Cl. C02F 1/52 (2006.01) B01D 17/12 (2006.01) B01D 21/24 (2006.01) C02F 1/20 (2006.01) C02F 3/12 (2006.01) G01F 23/70 (2006.01)**

[25] EN

[54] **VARYING WATER LEVEL SOLIDS AND TRACKING CONTROL**

[54] **CONTROLE DE SUIVI ET DE SOLIDES DE NIVEAU D'EAU VARIABLE**

[72] LINDEMANN, TIMOTHY L., US

[72] WHITTIER, MICHAEL C., US

[73] EVOQUA WATER TECHNOLOGIES LLC, US

[85] 2018-02-16

[86] 2016-09-01 (PCT/US2016/049809)

[87] (WO2017/048514)

[30] US (62/219,735) 2015-09-17

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[11] **2,996,431**  
[13] C

[51] **Int.Cl. F03H 1/00 (2006.01)**

[25] FR

[54] **GRIDDED ION THRUSTER WITH INTEGRATED SOLID PROPELLANT**

[54] **PROPULSEUR IONIQUE A GRILLE AVEC AGENT PROPULSIF SOLIDE INTEGRE**

[72] RAFALSKYI, DMYTRO, FR

[72] AANESLAND, ANE, FR

[73] ECOLE POLYTECHNIQUE, FR

[73] CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, FR

[85] 2018-02-22

[86] 2016-08-30 (PCT/EP2016/070412)

[87] (WO2017/037062)

[30] FR (1558071) 2015-08-31

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[11] **2,996,694**  
[13] C

[51] **Int.Cl. H01H 9/10 (2006.01) H01H 9/54 (2006.01) H01H 39/00 (2006.01) H01H 89/00 (2006.01)**

[25] FR

[54] **PROTECTIVE DEVICE FOR AN ELECTRICAL CIRCUIT, ELECTRICAL CIRCUIT PROVIDED WITH SUCH A DEVICE AND METHOD FOR PROTECTING SUCH AN ELECTRICAL CIRCUIT**

[54] **DISPOSITIF DE PROTECTION POUR UN CIRCUIT ELECTRIQUE, CIRCUIT ELECTRIQUE EQUIPE D'UN TEL DISPOSITIF ET PROCEDE DE PROTECTION D'UN TEL CIRCUIT ELECTRIQUE**

[72] DE PALMA, GIANFRANCO, FR

[72] OUAIDA, REMY, FR

[73] MERSEN FRANCE SB SAS, FR

[85] 2018-02-26

[86] 2016-09-09 (PCT/EP2016/071280)

[87] (WO2017/042321)

[30] FR (1558433) 2015-09-10

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[11] **2,997,296**  
[13] C

[51] **Int.Cl. G10L 19/008 (2013.01) G10L 19/02 (2013.01) H04S 1/00 (2006.01)**

[25] EN

[54] **METHOD AND SYSTEM FOR TIME DOMAIN DOWN MIXING A STEREO SOUND SIGNAL INTO PRIMARY AND SECONDARY CHANNELS USING DETECTING AN OUT-OF-PHASE CONDITION OF THE LEFT AND RIGHT CHANNELS**

[54] **PROCEDE ET SYSTEME POUR LE MIXAGE REDUCTEUR DE DOMAINE TEMPOREL D'UN SIGNAL SONORE STEREO EN CANAUX PRIMAIRE ET SECONDAIRE PAR DETECTION D'ETAT HORS PHASE DES CANAUX GAUCHE ET DROIT**

[72] VAILLANCOURT, TOMMY, CA

[72] JELINEK, MILAN, CA

[73] VOICEAGE CORPORATION, CA

[85] 2018-03-02

[86] 2016-09-22 (PCT/CA2016/051105)

[87] (WO2017/049396)

[30] US (62/232,589) 2015-09-25

[30] US (62/362,360) 2016-07-14

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[11] **2,997,331**  
[13] C

[51] **Int.Cl. G10L 19/008 (2013.01) G10L 19/125 (2013.01) G10L 19/26 (2013.01)**

[25] EN

[54] **METHOD AND SYSTEM FOR ENCODING A STEREO SOUND SIGNAL USING CODING PARAMETERS OF A PRIMARY CHANNEL TO ENCODE A SECONDARY CHANNEL**

[54] **PROCEDE ET SYSTEME POUR CODER UN SIGNAL SONORE STEREO A L'AIDE DE PARAMETRES DE CODAGE D'UN CANAL PRIMAIRE POUR CODER UN CANAL SECONDAIRE**

[72] VAILLANCOURT, TOMMY, CA

[72] JELINEK, MILAN, CA

[73] VOICEAGE CORPORATION, CA

[85] 2018-03-02

[86] 2016-09-22 (PCT/CA2016/051107)

[87] (WO2017/049398)

[30] US (62/232,589) 2015-09-25

[30] US (62/362,360) 2016-07-14



**Brevets canadiens délivrés  
5 décembre 2023**

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[11] **2,997,920**  
[13] C

[51] **Int.Cl. E21B 17/10 (2006.01) E21B 17/16 (2006.01) E21B 19/24 (2006.01) E21B 23/00 (2006.01) E21B 23/01 (2006.01)**

[25] EN

[54] **DEPLOYABLE BOW SPRING CENTRALIZER**

[54] **CENTREUR A RESSORTS ARQUES DEPLOYABLES**

[72] ANDRIGO, GREGORY JAMES ALEXANDER, CA

[73] TOP-CO INC., US

[85] 2018-03-07

[86] 2016-09-08 (PCT/US2016/050670)

[87] (WO2017/044560)

[30] US (62/215,604) 2015-09-08

[30] US (15/258,671) 2016-09-07

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[11] **2,998,079**  
[13] C

[51] **Int.Cl. H04N 21/2385 (2011.01) H04N 21/438 (2011.01) H04J 11/00 (2006.01)**

[25] EN

[54] **TRANSMISSION DEVICE, RECEIVING DEVICE, AND DATA PROCESSING METHOD**

[54] **DISPOSITIF D'EMISSION, DISPOSITIF DE RECEPTION ET PROCEDE DE TRAITEMENT DE DONNEES**

[72] TAKAHASHI, KAZUYUKI, JP

[72] MICHAEL, LACHLAN BRUCE, JP

[73] SONY CORPORATION, JP

[85] 2018-03-08

[86] 2016-09-05 (PCT/JP2016/075938)

[87] (WO2017/047424)

[30] JP (2015-184540) 2015-09-17

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[11] **2,998,405**  
[13] C

[51] **Int.Cl. G10L 19/00 (2013.01) G10L 21/0324 (2013.01) G10L 25/21 (2013.01)**

[25] EN

[54] **ADAPTIVE PROCESSING WITH MULTIPLE MEDIA PROCESSING NODES**

[54] **TRAITEMENT ADAPTATIF EN RAPPORT AVEC UNE PLURALITE DE NOEUDS DE TRAITEMENT DE DONNEES MULTIMEDIAS**

[72] RIEDMILLER, JEFFREY, US

[72] RADHAKRISHNAN, REGUNATHAN, US

[72] PRIBADI, MARVIN, US

[72] FARAHANI, FARHAD, AU

[72] SMITHERS, MICHAEL, AU

[73] DOLBY LABORATORIES LICENSING CORPORATION, US

[86] (2998405)

[87] (2998405)

[22] 2011-12-01

[62] 2,816,889

[30] US (61/419747) 2010-12-03

[30] US (61/558286) 2011-11-10

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[11] **2,998,580**  
[13] C

[51] **Int.Cl. E21B 47/12 (2012.01) E21B 41/00 (2006.01)**

[25] EN

[54] **DEVICES AND METHODS TO COMMUNICATE INFORMATION FROM BELOW A SURFACE CEMENT PLUG IN A PLUGGED OR ABANDONED WELL**

[54] **DISPOSITIFS ET PROCEDES POUR COMMUNIQUER DES INFORMATIONS DEPUIS LE DESSOUS D'UN BOUCHON DE SURFACE EN CIMENT DANS UN Puits BOUCHE OU ABANDONNE**

[72] GANGULY, PARTHA, US

[72] DUTTA, SUSHANT M., US

[72] LEHR, DOUGLAS J., US

[72] RICHARD, BENNETT, US

[72] JOHNSON, MICHAEL H., US

[72] MACPHERSON, JOHN D., US

[73] BAKER HUGHES, A GE COMPANY, LLC, US

[85] 2018-03-13

[86] 2016-08-09 (PCT/US2016/046145)

[87] (WO2017/048412)

[30] US (14/858,236) 2015-09-18

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[11] **2,998,865**  
[13] C

[51] **Int.Cl. H03M 13/37 (2006.01) H04N 21/438 (2011.01) H04N 21/6375 (2011.01) H04N 21/6405 (2011.01) H04N 21/6408 (2011.01) H04N 19/895 (2014.01)**

[25] FR

[54] **METHOD FOR OPTIMISING THE TRANSMISSION OF VIDEO DATA STREAMS IN A WIRELESS NETWORK**

[54] **PROCEDE D'OPTIMISATION DE TRANSMISSION DE FLUX DE DONNEES VIDEO DANS UN RESEAU SANS FIL**

[72] KEIFLIN, PIERRE, FR

[72] CARNIEL, CHRISTOPHE, FR

[72] DEDISSE, DANIEL, FR

[73] VOGO, FR

[85] 2018-03-15

[86] 2016-09-15 (PCT/FR2016/052331)

[87] (WO2017/046528)

[30] FR (1558670) 2015-09-16

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[11] **2,999,057**  
[13] C

[51] **Int.Cl. G06F 3/01 (2006.01)**

[25] EN

[54] **METHODS AND SYSTEMS FOR DISPLAYING ADDITIONAL CONTENT ON A HEADS UP DISPLAY DISPLAYING A VIRTUAL REALITY ENVIRONMENT**

[54] **PROCEDES ET SYSTEMES PERMETTANT D'AFFICHER UN CONTENU SUPPLEMENTAIRE SUR UN AFFICHAGE TETE HAUTE AFFICHANT UN ENVIRONNEMENT DE REALITE VIRTUELLE**

[72] SHANWARE, AJIT, US

[73] ROVI GUIDES, INC., US

[85] 2018-03-16

[86] 2017-04-26 (PCT/US2017/029593)

[87] (WO2017/189699)

[30] US (15/140,272) 2016-04-27

[30] US (15/140,249) 2016-04-27

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December 5, 2023**

[11] **2,999,360**  
[13] C

[51] **Int.Cl. F01D 5/28 (2006.01) F04D 29/32 (2006.01)**  
[25] FR  
[54] **BLADE COMPRISING A LEADING EDGE SHIELD AND METHOD OF MANUFACTURING THE BLADE**  
[54] **AUBE COMPRENANT UN BOUCLIER DE BORD D'ATTAQUE ET PROCEDE DE FABRICATION DE L'AUBE**  
[72] NOTARIANNI, GILLES PIERRE-MARIE, FR  
[72] GUIVARC'H, JEREMY, FR  
[72] POUZADOUX, FREDERIC JEAN-BERNARD, FR  
[72] RAULIN, DOMINIQUE, FR  
[72] RUF, THIBAUT, FR  
[73] SAFRAN AIRCRAFT ENGINES, FR  
[85] 2018-03-21  
[86] 2016-09-27 (PCT/FR2016/052443)  
[87] (WO2017/055726)  
[30] FR (1559127) 2015-09-28

[11] **2,999,387**  
[13] C

[51] **Int.Cl. A23L 27/30 (2016.01) A23L 33/10 (2016.01) A23L 33/21 (2016.01) A61K 31/716 (2006.01) A61K 31/721 (2006.01)**  
[25] EN  
[54] **METHODS FOR IMPROVING THE GASTROINTESTINAL TOLERANCE OF FOOD AND BEVERAGE PRODUCTS COMPRISING SWEET, LOW-DIGESTIBLE CARBOHYDRATES**  
[54] **PROCEDES D'AMELIORATION DE LA TOLERANCE GASTRO-INTESTINALE DE PRODUITS ALIMENTAIRES ET DE BOISSONS COMPRENANT DES CARBOHYDRATES SUCRES FAIBLEMENT DIGESTIBLES**  
[72] WILLIAMSON, PATRICIA S., US  
[72] WOODYER, RYAN D., US  
[73] TATE & LYLE SOLUTIONS USA LLC, US  
[85] 2018-03-21  
[86] 2016-09-21 (PCT/GB2016/052932)  
[87] (WO2017/051166)  
[30] US (62/222,478) 2015-09-23  
[30] GB (1602410.1) 2016-02-10

[11] **2,999,919**  
[13] C

[51] **Int.Cl. B01D 15/04 (2006.01) B01D 1/00 (2006.01) C02F 1/42 (2006.01)**  
[25] EN  
[54] **SYSTEM AND METHOD FOR MANAGING TOXICITY FROM HIGH-TOTAL DISSOLVED SOLIDS (TDS) EFFLUENTS BY ION-RATIO BALANCING**  
[54] **SYSTEME ET PROCEDE DE GESTION DE LA TOXICITE PROVENANT D'EFFLUENTS DE MATIERES DISSOUTES TOTALES (MDT) PAR EQUILIBRAGE DE RAPPORT IONIQUE**  
[72] ROGERS, STEPHEN E., US  
[72] MEYER, JOSEPH, US  
[73] ARCADIS CORPORATE SERVICES, INC., US  
[85] 2018-03-22  
[86] 2016-09-26 (PCT/US2016/053709)  
[87] (WO2017/053942)  
[30] US (62/233,111) 2015-09-25

[11] **3,000,406**  
[13] C

[51] **Int.Cl. F28G 9/00 (2006.01) B05B 7/04 (2006.01) B08B 3/00 (2006.01) B08B 9/02 (2006.01) F28G 1/16 (2006.01)**  
[25] EN  
[54] **METHOD AND SYSTEM FOR CLEANING HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS**  
[54] **PROCEDE ET SYSTEME DE NETTOYAGE DE SYSTEMES DE CHAUFFAGE, DE VENTILATION ET DE CLIMATISATION**  
[72] METROPOULOS, JAMES, US  
[73] BLUE BOX AIR, LLC, US  
[85] 2018-03-28  
[86] 2016-09-29 (PCT/US2016/054515)  
[87] (WO2017/059119)  
[30] US (62/234,405) 2015-09-29  
[30] US (15/280,693) 2016-09-29

[11] **3,000,773**  
[13] C

[51] **Int.Cl. H02M 7/797 (2006.01) H02M 1/42 (2007.01) H02J 7/02 (2016.01)**  
[25] EN  
[54] **A BIDIRECTIONAL POWER CONVERTER**  
[54] **CONVERTISSEUR DE PUISSANCE BIDIRECTIONNEL**  
[72] SMIDT, PIETER JAN MARK, NL  
[72] DUARTE, JORGE LUIZ, NL  
[72] VAN HORCK, FRANCISCUS BERNARDUS MARIE, NL  
[73] CHARGECO HOLDING B.V., NL  
[85] 2018-04-03  
[86] 2016-10-04 (PCT/EP2016/073688)  
[87] (WO2017/060249)  
[30] EP (15188387.3) 2015-10-05

[11] **3,000,796**  
[13] C

[51] **Int.Cl. A01G 2/00 (2018.01) A01H 6/20 (2018.01) A01H 5/10 (2018.01)**  
[25] EN  
[54] **METHOD FOR ENHANCING CROP PERFORMANCE IN BRASSICA**  
[54] **PROCEDE D'AMELIORATION DES PERFORMANCES DE RECOLTE CHEZ BRASSICA**  
[72] MACDONALD, ROBERT, CA  
[72] SLATER, SUSAN, CA  
[72] LEWIS, DEREK, CA  
[72] GORMAN, JOEL, CA  
[73] BASF AGRICULTURAL SOLUTIONS SEED US LLC, US  
[85] 2018-03-19  
[86] 2016-09-16 (PCT/EP2016/072058)  
[87] (WO2017/050663)  
[30] CA (PCT/CA2015/050935) 2015-09-22

**Brevets canadiens délivrés  
5 décembre 2023**

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[11] **3,000,956**  
[13] C

[51] **Int.Cl. H01Q 9/00 (2006.01) H01Q 1/36 (2006.01)**  
[25] EN  
[54] **ULTRA-WIDEBAND (UWB) ANTENNAS AND RELATED ENCLOSURES FOR THE UWB ANTENNAS**  
[54] **ANTENNES ULTRALARGE BANDE (ULB) ET ENCEINTES ASSOCIEES POUR LESDITES ANTENNES ULB**  
[72] HOLLAR, SETH EDWARD-AUSTIN, US  
[72] FISHER, SCOTT FRANCIS, US  
[73] WISER SYSTEMS, INC., US  
[85] 2018-04-03  
[86] 2016-11-09 (PCT/US2016/061075)  
[87] (WO2017/083347)  
[30] US (62/252,716) 2015-11-09

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[11] **3,003,076**  
[13] C

[51] **Int.Cl. A61K 31/585 (2006.01) A61K 31/155 (2006.01) A61K 31/4439 (2006.01) A61P 1/16 (2006.01) A61P 43/00 (2006.01)**  
[25] EN  
[54] **TREATMENT OF HEPATIC STEATOSIS RELATED OLIGO-OVULATION**  
[54] **TRAITEMENT DE L'OLIGO-OVULATION ASSOCIEE A LA STEATOSE HEPATIQUE**  
[72] IBANEZ, LOURDES, ES  
[72] DE ZEGHER, FRANCIS, BE  
[73] KATHOLIEKE UNIVERSITEIT LEUVEN, BE  
[73] HOSPITAL SANT JOAN DE DEU, ES  
[85] 2018-04-24  
[86] 2016-10-27 (PCT/EP2016/075953)  
[87] (WO2017/072243)  
[30] GB (1518979.8) 2015-10-27

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[11] **3,003,156**  
[13] C

[51] **Int.Cl. C07K 7/08 (2006.01) A61K 38/17 (2006.01) A61P 9/04 (2006.01) C07K 7/06 (2006.01) C07K 14/00 (2006.01)**  
[25] EN  
[54] **PEPTIDES AND METHOD FOR TREATMENT OF CARDIAC ARREST**  
[54] **PEPTIDES ET PROCEDE DE TRAITEMENT DE L'ARRET CARDIAQUE**  
[72] VANDEN HOEK, TERRY, US  
[72] ZHU, XIANGDONG, US  
[72] LI, JING, US  
[73] THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS, US  
[85] 2018-04-24  
[86] 2016-11-07 (PCT/US2016/060789)  
[87] (WO2017/079725)  
[30] US (62/252,201) 2015-11-06

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[11] **3,001,138**  
[13] C

[51] **Int.Cl. B63B 21/66 (2006.01) G01V 1/38 (2006.01)**  
[25] EN  
[54] **DYNAMICALLY CONTROLLED FOIL SYSTEMS AND METHODS**  
[54] **SYSTEMES DE PLAN SUSTENTATEUR COMMANDES DE MANIERE DYNAMIQUE ET PROCEDES**  
[72] SCHNEIDER, CURT, US  
[73] ION GEOPHYSICAL CORPORATION, US  
[85] 2018-04-05  
[86] 2016-10-17 (PCT/US2016/057344)  
[87] (WO2017/066762)  
[30] US (62/242,142) 2015-10-15

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[11] **3,003,116**  
[13] C

[51] **Int.Cl. A22C 25/08 (2006.01) A23B 4/06 (2006.01) B65G 53/30 (2006.01) B65G 53/66 (2006.01)**  
[25] EN  
[54] **METHOD AND SYSTEM FOR MOVING KILLED FISH IN A PIPE OR PIPELINE**  
[54] **PROCEDE ET SYSTEME POUR DEPLACER DES POISSONS TUES DANS UN TUYAU OU UNE CANALISATION**  
[72] KJOLAAS, FRODE HAAKON, NO  
[73] SEASIDE AS, NO  
[85] 2018-04-24  
[86] 2016-10-27 (PCT/NO2016/050212)  
[87] (WO2017/074198)  
[30] NO (20151469) 2015-10-29

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[11] **3,003,279**  
[13] C

[51] **Int.Cl. E04B 9/00 (2006.01) E04B 9/04 (2006.01) E04B 9/12 (2006.01) E04B 9/30 (2006.01)**  
[25] EN  
[54] **CEILING SYSTEM**  
[54] **SYSTEME DE PLAFOND**  
[72] BERGMAN, TODD M., US  
[73] ARMSTRONG WORLD INDUSTRIES, INC., US  
[85] 2018-04-25  
[86] 2016-11-04 (PCT/US2016/060438)  
[87] (WO2017/083181)  
[30] US (14/935,551) 2015-11-09  
[30] US (14/935,562) 2015-11-09

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[11] **3,001,871**  
[13] C

[51] **Int.Cl. A61M 35/00 (2006.01) A61J 1/06 (2006.01) B65D 1/09 (2006.01)**  
[25] EN  
[54] **STORAGE AND DISPENSER DEVICE**  
[54] **DISPOSITIF DE STOCKAGE ET DE DISTRIBUTION**  
[72] SAUTEREAU, CHRISTOPHE, FR  
[73] BOEHRINGER INGELHEIM ANIMAL HEALTH USA INC., US  
[85] 2018-04-12  
[86] 2016-10-21 (PCT/US2016/058010)  
[87] (WO2017/070408)  
[30] US (62/244,616) 2015-10-21

**Canadian Patents Issued  
December 5, 2023**

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[11] **3,003,501**  
[13] C

[51] **Int.Cl. E21B 17/00 (2006.01) E21B 7/04 (2006.01)**  
[25] EN  
[54] **ONE PIECE FORGED FLUIDIC DISPLACEMENT DRILL PIPE AND METHOD OF MANUFACTURE THEREOF**  
[54] **TUYAU DE FORAGE A DEPLACEMENT FLUIDIQUE FORGE EN UNE SEULE PIECE ET METHODE DE FABRICATION ASSOCIEE**  
[72] ADKINS, GREGORY LYNN, US  
[73] HUNTING ENERGY SERVICES, INC., US  
[86] (3003501)  
[87] (3003501)  
[22] 2018-05-02  
[30] US (15/585,276) 2017-05-03

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[11] **3,003,626**  
[13] C

[51] **Int.Cl. B60B 39/12 (2006.01)**  
[25] EN  
[54] **A VEHICULAR LADDER**  
[54] **ECHELLE POUR VEHICULE**  
[72] HERMANS, TY, AU  
[73] IP RESERVE PTY LTD, AU  
[85] 2018-04-30  
[86] 2016-10-28 (PCT/AU2016/051014)  
[87] (WO2017/070740)  
[30] AU (2015904453) 2015-10-30

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[11] **3,003,732**  
[13] C

[51] **Int.Cl. A61B 17/42 (2006.01) A61B 5/03 (2006.01) A61B 5/22 (2006.01)**  
[25] EN  
[54] **INTRAUTERINE BALLOON APPARATUS, SYSTEM, AND METHOD FOR AUGMENTING UTERINE BIRTHING FORCES DURING PARTURITION**  
[54] **APPAREIL A BALLONNET INTRA-UTERIN, SYSTEME ET PROCEDE D'AUGMENTATION DE LA FORCE DE CONTRACTION UTERINE PENDANT L'ACCOUCHEMENT**  
[72] CHINCHOY, ED, US  
[72] KELLEY, JAMES, US  
[72] SNELL, JAY, US  
[73] 3VO MEDICAL, INC., US  
[85] 2018-04-27  
[86] 2016-11-10 (PCT/US2016/061429)  
[87] (WO2017/087254)  
[30] US (14/942,748) 2015-11-16

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[11] **3,003,875**  
[13] C

[51] **Int.Cl. C03B 29/12 (2006.01)**  
[25] EN  
[54] **GLASS SHEET POSITIONING APPARATUS AND METHOD**  
[54] **APPAREIL DE POSITIONNEMENT DE PANNEAU DE VERRE ET PROCEDE**  
[72] NITSCHKE, DAVID B., US  
[72] COX, CHAD E., US  
[73] GLASSTECH, INC., US  
[85] 2018-05-01  
[86] 2016-11-02 (PCT/US2016/059994)  
[87] (WO2017/079201)  
[30] US (62/249,702) 2015-11-02

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[11] **3,004,007**  
[13] C

[51] **Int.Cl. C07D 403/04 (2006.01) A61K 31/404 (2006.01) A61P 35/00 (2006.01)**  
[25] EN  
[54] **3-(5-FLUOROINDOLYL)-4-ARYLMALEIMIDE COMPOUNDS AND THEIR USE IN TUMOR TREATMENT**  
[54] **COMPOSES 3-(5-FLUOROINDOLYL)-4-ARYLMALEIMIDE ET LEUR UTILISATION DANS LE TRAITEMENT DES TUMEURS**  
[72] MOHLER, MARKUS, DE  
[72] MADERER, ANNETT, DE  
[72] DANNHARDT, GERD, DE  
[72] GANSER, CHRISTOPHER, DE  
[72] LAUERMANN, EVA, DE  
[72] MONNIKES, RENE, DE  
[73] JOHANNES GUTENBERG-UNIVERSITAT MAINZ, DE  
[73] UNIVERSITATSMEDIZIN DER JOHANNES GUTENBERG-UNIVERSITAT MAINZ, DE  
[85] 2018-05-02  
[86] 2016-12-28 (PCT/EP2016/082777)  
[87] (WO2017/114863)  
[30] EP (15203072.2) 2015-12-30

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[11] **3,004,131**  
[13] C

[51] **Int.Cl. F16B 43/00 (2006.01) B02C 17/00 (2006.01) B02C 17/18 (2006.01) B02C 17/22 (2006.01) F16B 1/00 (2006.01) F16B 21/00 (2006.01) F16B 39/00 (2006.01) F16B 39/24 (2006.01) F16B 39/284 (2006.01) F16B 39/34 (2006.01) F16F 1/32 (2006.01)**  
[25] EN  
[54] **DEVICE FOR PREVENTING SPILLS FROM AN INSIDE OF MINING MILLS**  
[54] **DISPOSITIF POUR EMPECHER LES DEVERSEMENTS DE L'INTERIEUR D'UNE USINE DE MINAGE**  
[72] ENDO ARRIAGADA, ALVARO ENRIQUE, CL  
[73] ENDO ARRIAGADA, ALVARO ENRIQUE, CL  
[85] 2018-05-03  
[86] 2016-08-30 (PCT/CL2016/000050)  
[87] (WO2017/066892)  
[30] CL (3138-2015) 2015-10-23

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[11] **3,005,520**  
[13] C

[51] **Int.Cl. A61K 8/02 (2006.01) A61K 8/24 (2006.01) A61K 8/362 (2006.01) A61K 8/60 (2006.01) A61K 9/20 (2006.01) A61Q 11/00 (2006.01)**  
[25] EN  
[54] **DENTAL PRODUCT CONTAINING XYLITOL, CITRIC ACID, AND MALIC ACID**  
[54] **PRODUIT DENTAIRE CONTENANT DU XYLITOL, DE L'ACIDE CITRIQUE ET DE L'ACIDEMALIQUE**  
[72] CONSTANTINE, MARK, GB  
[72] CONSTANTINE, MARGARET JOAN, GB  
[72] BIRD, ROWENA JACQUELINE, GB  
[72] AMBROSEN, HELEN, GB  
[73] COSMETIC WARRIORS LIMITED, GB  
[85] 2018-05-16  
[86] 2016-12-01 (PCT/GB2016/053770)  
[87] (WO2017/093733)  
[30] GB (1521384.6) 2015-12-03

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[11] **3,005,691**  
[13] C

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[25] EN  
[54] **SQUEEGEE**  
[54] **RACLE**  
[72] BRUDERMANN, HANS JORG, CH  
[72] REINERT, MICHAEL, DE  
[73] DAETWYLER SWISSTEC AG, CH  
[85] 2018-05-17  
[86] 2016-12-09 (PCT/EP2016/080473)  
[87] (WO2017/097995)  
[30] EP (15199303.7) 2015-12-10

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[11] **3,006,508**  
[13] C

[51] **Int.Cl. C07C 29/149 (2006.01) B01J 23/46 (2006.01) C07C 29/141 (2006.01)**  
[25] EN  
[54] **HYDROGENATION OR HYDROGENOLYSIS OF AN OXYGENATE**  
[54] **HYDROGENATION OU HYDROGENOLYSE D'UN COMPOSE OXYGENE**  
[72] DE VLIENER, DIONYSIUS JACOBUS MARIA, NL  
[72] LANGE, JEAN PAUL ANDRE MARIE JOSEPH GHISLAIN, NL  
[72] EDULJI, SMITA, US  
[72] COLIJN, HENDRIK ALBERTUS, NL  
[73] SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V., NL  
[85] 2018-05-28  
[86] 2016-12-15 (PCT/EP2016/081294)  
[87] (WO2017/103009)  
[30] US (62/268,604) 2015-12-17

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[11] **3,006,540**  
[13] C

[51] **Int.Cl. C09D 11/03 (2014.01) C09D 11/037 (2014.01) B41M 3/14 (2006.01)**  
[25] EN  
[54] **INTAGLIO MAGNETIC MACHINE READABLE OXIDATIVE DRYING INKS**  
[54] **ENCRE A SECHAGE OXYDATIF LISIBLE PAR MACHINE MAGNETIQUE D'HELIOGRAVURE**  
[72] KRUEGER, JESSICA, CH  
[72] PASQUIER, CECILE, CH  
[72] MAGNIN, PATRICK, FR  
[73] SICPA HOLDING SA, CH  
[85] 2018-05-28  
[86] 2017-01-26 (PCT/EP2017/051624)  
[87] (WO2017/129666)  
[30] EP (16153347.6) 2016-01-29

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[13] C

[51] **Int.Cl. A61K 31/706 (2006.01) A61K 9/20 (2006.01) A61K 9/48 (2006.01) A61K 31/7068 (2006.01)**  
[25] EN  
[54] **COMPOSITIONS CONTAINING DECITABINE, 5AZACYTIDINE AND TETRAHYDROURIDINE AND USES THEREOF**  
[54] **COMPOSITIONS CONTENANT DE LA DECITABINE, DE LA 5-AZACYTIDINE ET DE LA TETRAHYDROURIDINE**  
[72] SAUNTHARARAJAH, YOGEN, US  
[72] LAU, HENRY, US  
[72] DESIMONE, JOSEPH, US  
[72] VADIVELU, SANTHOSH, US  
[73] EPIDESTINY, INC., US  
[85] 2018-06-04  
[86] 2016-12-05 (PCT/US2016/064935)  
[87] (WO2017/096357)  
[30] US (62/262,839) 2015-12-03  
[30] US (62/429,292) 2016-12-02

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[11] **3,007,386**  
[13] C

[51] **Int.Cl. A61G 7/05 (2006.01)**  
[25] EN  
[54] **A STATUS INDICATOR THAT ISSUES A STATUS NOTICE BASED ON THE ENTERED PATIENT TYPE INFORMATION AND THE DETECTED CONFIGURATION**  
[54] **INDICATEUR D'ETAT PRODUISANT UNE NOTIFICATION D'ETAT EN FONCTION DES RENSEIGNEMENTS DE TYPE DE CONFIGURATION DETECTEE**  
[72] LINGEGARD, HANS, SE  
[73] ARJO IP HOLDING AKTIEBOLAG, SE  
[85] 2018-06-04  
[86] 2016-12-02 (PCT/EP2016/079689)  
[87] (WO2017/093549)  
[30] US (62/263,032) 2015-12-04

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[11] **3,007,440**  
[13] C

[51] **Int.Cl. B65D 41/17 (2006.01) B65D 41/04 (2006.01) B65D 47/08 (2006.01)**  
[25] EN  
[54] **CLOSURE**  
[54] **BOUCHON**  
[72] CESARE, SLAVICA, US  
[72] LALIER, GREGORY, US  
[73] UNILEVER GLOBAL IP LIMITED, GB  
[85] 2018-06-05  
[86] 2016-12-19 (PCT/EP2016/081755)  
[87] (WO2017/108697)  
[30] EP (15202602.7) 2015-12-23

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[11] **3,007,587**  
[13] C

[51] **Int.Cl. A61K 9/107 (2006.01) A61K 31/05 (2006.01) A61K 31/355 (2006.01)**  
[25] EN  
[54] **PHARMACEUTICAL FORMULATION**  
[54] **FORMULATION PHARMACEUTIQUE**  
[72] EL-TAMIMY, MAHMOUD, AU  
[73] PHOSPHAGENICS LIMITED, AU  
[85] 2018-06-06  
[86] 2016-12-09 (PCT/AU2016/051209)  
[87] (WO2017/096427)  
[30] AU (2015905089) 2015-12-09  
[30] US (62/329,166) 2016-04-28

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[11] 3,007,785  
[13] C

- [51] **Int.Cl. H01R 13/641 (2006.01)**  
[25] EN  
[54] **ELECTRICAL CONNECTOR WITH HAPTIC FEEDBACK**  
[54] **CONNECTEUR ELECTRIQUE A RETROACTION HAPTIQUE**  
[72] BYRNE, NORMAN R., US  
[72] BYRNE, DANIEL P., US  
[72] WARWICK, TIMOTHY J., US  
[72] PETERSEN, THOMAS A., US  
[72] PATE, RANDELL E., US  
[72] MITCHELL, MARC A., US  
[73] BYRNE, NORMAN R., US  
[86] (3007785)  
[87] (3007785)  
[22] 2018-06-11  
[30] US (62/518213) 2017-06-12

[11] 3,008,207  
[13] C

- [51] **Int.Cl. A47J 31/44 (2006.01)**  
[25] EN  
[54] **APPARATUS FOR MAKING A BEVERAGE, IN PARTICULAR FOR A BEVERAGE CONTAINING MILK**  
[54] **APPAREIL DE PREPARATION DE BOISSON, EN PARTICULIER UNE BOISSON CONTENANT DU LAIT**  
[72] DIAMANTI, MAURIZIO, IT  
[72] CHANINE, VALERIY, IT  
[73] CAFFITALY SYSTEM S.P.A., IT  
[85] 2018-06-12  
[86] 2016-11-23 (PCT/IB2016/057055)  
[87] (WO2017/103709)  
[30] IT (102015000084746) 2015-12-17

[11] 3,008,681  
[13] C

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[25] EN  
[54] **DICYCLOPENTADIENE MODIFIED ESTER OLIGOMERS USEFUL IN COATING APPLICATIONS**  
[54] **OLIGOMERES D'ESTERS DE DICYCLOPENTADIENE MODIFIES UTILES DANS DES APPLICATIONS DE REVETEMENT**  
[72] TERWILLEGAR, ARNE MATTHEW, US  
[72] DENNISTON, CHARLISS, US  
[72] JAMONNAK, NUTTARA, TH  
[72] TOSUKHOWONG, THIDARAT, US  
[73] PTT GLOBAL CHEMICAL PUBLIC COMPANY LIMITED, TH  
[85] 2018-06-14  
[86] 2016-12-20 (PCT/US2016/067806)  
[87] (WO2017/112680)  
[30] US (62/270,377) 2015-12-21

[11] 3,009,138  
[13] C

- [51] **Int.Cl. B01D 53/58 (2006.01) C05C 1/00 (2006.01)**  
[25] EN  
[54] **UREA AMMONIUM NITRATE PRODUCTION**  
[54] **PRODUCTION DE NITRATE D'AMMONIUM-UREE**  
[72] PUCI, GIUSY ELISA, NL  
[72] DOBREE, JOEY, NL  
[73] STAMICARBON B.V., NL  
[85] 2018-06-19  
[86] 2016-12-21 (PCT/NL2016/050902)  
[87] (WO2017/111585)  
[30] EP (15201598.8) 2015-12-21

[11] 3,009,384  
[13] C

- [51] **Int.Cl. B60S 5/00 (2006.01) B25D 1/16 (2006.01)**  
[25] EN  
[54] **BRAKE IMPACT TOOL**  
[54] **OUTIL D'IMPACT DE FREIN**  
[72] ROLOF, RICK L., CA  
[73] ROLOF, RICK L., CA  
[85] 2018-06-21  
[86] 2016-12-29 (PCT/CA2016/000324)  
[87] (WO2017/113005)  
[30] US (62/387,516) 2015-12-30

[11] 3,009,647  
[13] C

- [51] **Int.Cl. B62D 55/28 (2006.01)**  
[25] EN  
[54] **A DEVICE TO ENHANCE THE TRACTION OF A TRACKED VEHICLE**  
[54] **DISPOSITIF POUR AMELIORER LA TRACTION DE VEHICULE CHENILLE**  
[72] BURLING, JOHN MENZIES, NZ  
[73] JB INNOVATIONS LIMITED, NZ  
[85] 2018-06-22  
[86] 2016-12-23 (PCT/NZ2016/050210)  
[87] (WO2017/111624)  
[30] NZ (715612) 2015-12-24

[11] 3,009,824  
[13] C

- [51] **Int.Cl. A62B 9/02 (2006.01) A62B 9/04 (2006.01) A62B 18/02 (2006.01)**  
[25] EN  
[54] **RESPIRATOR MASK WITH AIR-SAVER SWITCH**  
[54] **MASQUE RESPIRATOIRE DOTE D'UN COMMUTEUR D'ECONOMISEUR D'AIR**  
[72] PLUMMER, DARRILL L., US  
[72] CLARK, DUSTIN CARROLL, US  
[72] MORGAN, JUDGE W., III, US  
[73] SCOTT TECHNOLOGIES, INC., US  
[85] 2018-06-26  
[86] 2016-12-22 (PCT/US2016/068340)  
[87] (WO2017/116999)  
[30] US (62/272,821) 2015-12-30  
[30] US (62/376,203) 2016-08-17

[11] 3,010,051  
[13] C

- [51] **Int.Cl. E02F 9/28 (2006.01)**  
[25] EN  
[54] **TOOL RETENTION SYSTEM HAVING POCKETED WEDGE**  
[54] **SYSTEME DE RETENUE D'OUTIL COMPRENANT UNE CALE AYANT UNE POCHE**  
[72] CAMPOMANES, PATRICK SIMON, US  
[73] CATERPILLAR INC., US  
[85] 2017-06-28  
[86] 2016-12-20 (PCT/US2016/067785)  
[87] (WO2017/120034)  
[30] US (14/987,424) 2016-01-04

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[11] **3,010,052**

[13] C

- [51] **Int.Cl. C12Q 1/68 (2018.01)**  
[25] EN  
[54] **METHOD AND MEANS FOR DIAGNOSING TUMOURS**  
[54] **PROCEDES ET MOYENS DE DIAGNOSTIC DE TUMEURS**  
[72] MENSCHIKOWSKI, MARIO, DE  
[72] HAGELGANS, ALBERT, DE  
[72] SIEGERT, GABRIELE, DE  
[73] TECHNISCHE UNIVERSITAT DRESDEN, DE  
[85] 2018-06-28  
[86] 2016-12-22 (PCT/EP2016/082414)  
[87] (WO2017/114754)  
[30] DE (10 2015 226 843.8) 2015-12-30  
[30] DE (10 2016 216 438.4) 2016-08-31

[11] **3,010,247**

[13] C

- [51] **Int.Cl. E21B 34/14 (2006.01)**  
[25] EN  
[54] **SLIDING SLEEVE**  
[54] **MANCHON COULISSANT**  
[72] GAN, ZHENWEI, CN  
[72] QI, BIN, CN  
[72] HU, SHUNQU, CN  
[72] HOU, ZHIMIN, CN  
[72] LIU, TAO, CN  
[72] CHEN, CHEN, CN  
[72] WANG, LEI, CN  
[72] HU, DAN, CN  
[72] QIAN, JIANG, CN  
[72] LIN, YONGMAO, CN  
[73] CHINA PETROLEUM & CHEMICAL CORPORATION, CN  
[73] SINOPEC SOUTHWEST OIL & GAS COMPANY, CN  
[85] 2018-06-29  
[86] 2017-01-13 (PCT/CN2017/071166)  
[87] (WO2017/124978)  
[30] CN (201610036843.6) 2016-01-20  
[30] CN (201610037103.4) 2016-01-20  
[30] CN (201610038915.0) 2016-01-20  
[30] CN (201610037341.5) 2016-01-20  
[30] CN (201610037797.1) 2016-01-20  
[30] CN (201620054067.8) 2016-01-20

[11] **3,010,903**

[13] C

- [51] **Int.Cl. E04F 15/02 (2006.01) E04F 13/08 (2006.01) E04F 15/04 (2006.01)**  
[25] EN  
[54] **SET OF PANELS, METHOD FOR MANUFACTURING SUCH SET OF PANELS, ASSEMBLY OF THE PANELS AND LOCKING PROFILE USED IN SAID PANELS**  
[54] **ENSEMBLE DE PANNEAUX, PROCEDE DE FABRICATION D'UN TEL ENSEMBLE DE PANNEAUX, ASSEMBLAGE DES PANNEAUX ET PROFILE DE VERROUILLAGE UTILISE DANS LESDITS PANNEAUX**  
[72] BEVERNAGE, LEO MARIE RICHARD, BE  
[72] HINDERSLAND, LEIF KARE, NO  
[72] ARNES, DAG, NO  
[73] BEAULIEU INTERNATIONAL GROUP NV, BE  
[85] 2018-07-06  
[86] 2017-01-13 (PCT/EP2017/050669)  
[87] (WO2017/121851)  
[30] EP (16151625.7) 2016-01-15

[11] **3,011,525**

[13] C

- [51] **Int.Cl. A61K 31/4709 (2006.01) A61K 9/20 (2006.01) A61K 9/48 (2006.01) A61K 47/32 (2006.01) A61P 35/00 (2006.01)**  
[25] EN  
[54] **PHARMACEUTICAL COMPOSITION COMPRISING QUINOLINE DERIVATIVE OR SALT THEREOF**  
[54] **COMPOSITION PHARMACEUTIQUE CONTENANT UN DERIVE DE QUINOLEINE OU UN SEL DE CELUI-CI**  
[72] LU, YUN, CN  
[72] ZHANG, XINHUA, CN  
[72] WANG, CHENYANG, CN  
[73] JIANGSU HENGRUI MEDICINE CO., LTD., CN  
[85] 2018-07-16  
[86] 2017-01-23 (PCT/CN2017/072155)  
[87] (WO2017/129087)  
[30] CN (201610056739.3) 2016-01-27

[11] **3,011,791**

[13] C

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[25] EN  
[54] **ANNULOPLASTY IMPLANT**  
[54] **IMPLANT D'ANNULOPLASTIE**  
[72] O'CARROLL, GER, IE  
[72] PUGH, MARK, IE  
[72] MORAN, ADRIAN, IE  
[72] XIE, CHEN, IE  
[73] MEDTENTIA INTERNATIONAL LTD OY, FI  
[85] 2018-07-18  
[86] 2016-10-13 (PCT/EP2016/074613)  
[87] (WO2017/125170)  
[30] US (62/281,751) 2016-01-22

[11] **3,012,112**

[13] C

- [51] **Int.Cl. C08G 63/672 (2006.01)**  
[25] EN  
[54] **POLYESTER RESINS**  
[54] **RESINE POLYESTER**  
[72] HIROKANE, TAKESHI, JP  
[72] MORISHITA, TAKAMI, JP  
[72] ISHII, KENTARO, JP  
[73] MITSUBISHI GAS CHEMICAL COMPANY, INC., JP  
[85] 2018-07-20  
[86] 2017-03-09 (PCT/JP2017/009402)  
[87] (WO2017/159524)  
[30] JP (2016-050879) 2016-03-15

[11] **3,012,338**

[13] C

- [51] **Int.Cl. H04L 27/26 (2006.01) H04J 1/00 (2006.01) H04L 27/01 (2006.01)**  
[25] EN  
[54] **TERMINAL DEVICE AND COMMUNICATION METHOD**  
[54] **DISPOSITIF TERMINAL, ET PROCEDE DE COMMUNICATION**  
[72] HAYASHI, TAKASHI, JP  
[72] OUCHI, WATARU, JP  
[72] AIBA, TATSUSHI, JP  
[72] SUZUKI, SHOICHI, JP  
[73] SHARP KABUSHIKI KAISHA, JP  
[85] 2018-07-23  
[86] 2017-02-01 (PCT/JP2017/003630)  
[87] (WO2017/135312)  
[30] JP (2016-019537) 2016-02-04

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[13] C

[51] **Int.Cl. B22C 9/10 (2006.01) F01D 5/18 (2006.01)**  
[25] FR  
[54] **METHOD FOR FORMING DUST-REMOVAL HOLES FOR A TURBINE BLADE AND ASSOCIATED CERAMIC CORE**  
[54] **PROCEDE DE FORMATION DE TROUS DE DEPOUSSIERAGE POUR AUBE DE TURBINE ET NOYAU CERAMIQUE ASSOCIE**  
[72] ROLLINGER, ADRIEN BERNARD VINCENT, FR  
[72] BECHELANY, MIRNA, FR  
[73] SAFRAN, FR  
[85] 2018-08-08  
[86] 2017-02-10 (PCT/FR2017/050310)  
[87] (WO2017/137709)  
[30] FR (1651134) 2016-02-12

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[11] **3,016,250**  
[13] C

[51] **Int.Cl. G01N 33/543 (2006.01) G01N 33/68 (2006.01)**  
[25] EN  
[54] **ANTIGEN ARRAY**  
[54] **RESEAU D'ANTIGENES**  
[72] HARWANEGG, CHRISTIAN, AT  
[72] MITTERER, GEORG, AT  
[73] MACROARRAY DIAGNOSTICS GMBH, AT  
[85] 2018-08-30  
[86] 2017-03-30 (PCT/EP2017/057481)  
[87] (WO2017/167843)  
[30] EP (16162859.9) 2016-03-30

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[13] C

[51] **Int.Cl. A61F 2/24 (2006.01) A61B 17/00 (2006.01) A61B 17/34 (2006.01) A61M 25/01 (2006.01)**  
[25] EN  
[54] **DELIVERY SYSTEM FOR PROSTHETIC HEART VALVE**  
[54] **SYSTEME DE POSE DE VALVULE CARDIAQUE PROTHETIQUE**  
[72] PASSMAN, JOSEPH ARTHUR, US  
[72] THAI, LINDA, US  
[72] MURAD, MICHAEL, US  
[73] EDWARDS LIFESCIENCES CORPORATION, US  
[85] 2018-08-31  
[86] 2017-03-24 (PCT/US2017/024135)  
[87] (WO2017/165842)  
[30] US (62/312,757) 2016-03-24

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[11] **3,016,714**  
[13] C

[51] **Int.Cl. H04W 24/04 (2009.01) H04W 72/02 (2009.01) H04W 80/04 (2009.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR EFFICIENT UTILIZATION OF WIRELESS BANDWIDTH**  
[54] **SYSTEMES ET METHODES D'UTILISATION EFFICACE DE LARGEUR DE BANDE SANS FIL**  
[72] BEEMA, VISHNU VARDHAN REDDY, US  
[72] SURESH, SANDEEP, US  
[72] ESKILDSSEN, KENNETH, US  
[73] ADEMCO INC., US  
[86] (3016714)  
[87] (3016714)  
[22] 2018-09-05  
[30] US (15/854,204) 2017-12-26

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[11] **3,017,556**  
[13] C

[51] **Int.Cl. A61K 9/16 (2006.01) A61K 9/06 (2006.01) A61K 33/26 (2006.01) A61K 47/02 (2006.01) A61K 47/42 (2017.01)**  
[25] EN  
[54] **COMPOSITIONS AND METHODS FOR INCREASING IRON INTAKE IN A MAMMAL**  
[54] **COMPOSITIONS ET PROCEDES PERMETTANT D'AUGMENTER L'ABSORPTION DE FER CHEZ UN MAMMIFERE**  
[72] GILMER, JOHN, IE  
[72] GABOR, RADICS, IE  
[72] WHELEHAN, MICHAEL, IE  
[72] WANG, JUN, IE  
[72] O'FLYNN, PAT, IE  
[72] LEDWIDGE, MARK, IE  
[73] SOLVOTRIN THERAPEUTICS LTD, IE  
[85] 2018-09-12  
[86] 2017-03-15 (PCT/EP2017/056134)  
[87] (WO2017/158030)  
[30] EP (16160539.9) 2016-03-15

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[11] **3,019,047**  
[13] C

[51] **Int.Cl. B32B 13/00 (2006.01) B28B 19/00 (2006.01) B32B 13/02 (2006.01) B32B 37/00 (2006.01) E04C 2/288 (2006.01) E04C 2/30 (2006.01)**  
[25] EN  
[54] **CONCRETE PANEL BOARD**  
[54] **PLAQUE DE PANNEAU DE BETON**  
[72] ORR, RANDY, CA  
[73] ARTS & LABOUR ARTISANS INC., CA  
[86] (3019047)  
[87] (3019047)  
[22] 2018-09-27  
[30] US (62/564205) 2017-09-27

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[11] **3,019,429**  
[13] C

[51] **Int.Cl. G01M 3/26 (2006.01) G01M 3/02 (2006.01) G01M 17/00 (2006.01) G01N 19/08 (2006.01) G01N 21/88 (2006.01) G01N 27/02 (2006.01) G01N 27/20 (2006.01) G01N 27/24 (2006.01) G01N 33/00 (2006.01)**  
[25] EN  
[54] **SENSING SYSTEM FOR MONITORING THE INTEGRITY OF A STRUCTURE**  
[54] **SYSTEME DE DETECTION POUR SURVEILLER L'INTEGRITE D'UNE STRUCTURE**  
[72] KROKER, HENRY ABE, CA  
[72] LYNCH-STANTON, TREVOR BLAKE, CA  
[73] STRUCTURAL MONITORING SYSTEMS LTD, AU  
[85] 2018-09-28  
[86] 2017-04-21 (PCT/AU2017/050368)  
[87] (WO2017/181246)  
[30] AU (2016901491) 2016-04-21

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[11] **3,020,119**  
[13] C

[51] **Int.Cl. B01D 39/14 (2006.01)**  
[25] EN  
[54] **AIR FILTER WITH SPIRAL-WRAPPED FRAME**  
[54] **FILTRE A AIR COMPRENANT UN CADRE ENROULE EN SPIRALE**  
[72] GREGERSON, GLEN O., US  
[73] 3M INNOVATIVE PROPERTIES COMPANY, US  
[85] 2018-10-04  
[86] 2017-03-27 (PCT/US2017/024245)  
[87] (WO2017/176480)  
[30] US (62/317,972) 2016-04-04



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[11] **3,021,332**  
[13] C

[51] **Int.Cl. C09K 8/32 (2006.01) C01B 33/44 (2006.01)**  
[25] EN  
[54] **ORGANOCLAY COMPOSITIONS AND OIL-BASED DRILLING FLUID COMPRISING THE CLAYS**  
[54] **COMPOSITIONS D'ARGILE ORGANIQUE ET FLUIDE DE FORAGE A BASE D'HUILE COMPRENANT LES ARGILES**  
[72] BAUER, PATRICIA M., US  
[73] BYK-CHEMIE GMBH, DE  
[85] 2018-10-17  
[86] 2017-04-26 (PCT/US2017/029658)  
[87] (WO2017/189738)  
[30] US (62/329,814) 2016-04-29

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[11] **3,021,830**  
[13] C

[51] **Int.Cl. C25B 3/29 (2021.01) C25B 3/26 (2021.01) C25B 11/037 (2021.01) C25B 11/073 (2021.01) F01N 3/10 (2006.01)**  
[25] EN  
[54] **ELECTROCHEMICAL CATALYST FOR CONVERSION OF CO2 TO ETHANOL**  
[54] **CATALYSEUR ELECTROCHIMIQUE POUR LA CONVERSION DE CO2 EN ETHANOL**  
[72] RONDINONE, ADAM J., US  
[72] BONNESEN, PETER V., US  
[72] HENSLEY, DALE K., US  
[72] PENG, RUI, US  
[72] SONG, YANG, US  
[73] UT-BATTELLE, LLC, US  
[85] 2018-10-22  
[86] 2017-05-02 (PCT/US2017/030545)  
[87] (WO2017/192515)  
[30] US (15/143,651) 2016-05-02

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[11] **3,022,015**  
[13] C

[51] **Int.Cl. H04L 12/403 (2006.01)**  
[25] EN  
[54] **METHOD FOR INITIALISING A BUS SYSTEM, AND BUS SYSTEM**  
[54] **PROCEDE D'INITIALISATION D'UN SYSTEME DE BUS ET SYSTEME DE BUS ASSOCIE**  
[72] FUCHS, MANUEL, DE  
[73] SEW-EURODRIVE GMBH & CO. KG, DE  
[85] 2018-10-24  
[86] 2017-02-02 (PCT/EP2017/025018)  
[87] (WO2017/190843)  
[30] DE (10 2016 005 312.7) 2016-05-02

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[11] **3,022,588**  
[13] C

[51] **Int.Cl. A23D 7/005 (2006.01) A23L 27/00 (2016.01) A23L 27/60 (2016.01) A23L 29/219 (2016.01) A23L 29/225 (2016.01) A23D 7/02 (2006.01)**  
[25] EN  
[54] **OIL-IN-WATER EMULSION CONTAINING WHEAT FLOUR AND PHYSICALLY MODIFIED STARCH**  
[54] **EMULSION HUILE DANS L'EAU CONTENANT DE LA FARINE DE BLE ET DE L'AMIDON PHYSIQUEMENT MODIFIE**  
[72] SALAZAR, ZAIDA MARIA, NL  
[72] WOLLER, JUREK, NL  
[72] ZWETS, NICOLE, NL  
[73] UNILEVER IP HOLDINGS B.V., NL  
[85] 2018-10-30  
[86] 2017-05-08 (PCT/EP2017/060861)  
[87] (WO2017/198485)  
[30] EP (16169908.7) 2016-05-17

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[11] **3,025,293**  
[13] C

[51] **Int.Cl. E21B 29/00 (2006.01) E21B 23/00 (2006.01)**  
[25] EN  
[54] **EXPANDABLE JUNK MILL**  
[54] **FRAISE A FERRAILLE EXTENSIBLE**  
[72] LEHR, DOUGLAS J., US  
[73] BAKER HUGHES, A GE COMPANY, LLC, US  
[85] 2018-11-22  
[86] 2017-05-22 (PCT/US2017/033856)  
[87] (WO2017/205297)  
[30] US (15/165,986) 2016-05-26

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[13] C

[51] **Int.Cl. A01G 18/62 (2018.01) A01G 18/00 (2018.01) A01G 18/64 (2018.01) A01D 45/00 (2018.01)**  
[25] EN  
[54] **ARRANGEMENT AND METHOD FOR THE CULTIVATION OF HORTICULTURAL PRODUCTS.**  
[54] **AGENCEMENT ET PROCEDE DE CULTURE DE PRODUITS HORTICOLES.**  
[72] CHRISTIAENS, MARTINUS LEONARDUS HENDRIKUS MARIA, NL  
[73] CHRISTIAENS GROUP B.V., NL  
[85] 2018-11-26  
[86] 2017-05-26 (PCT/NL2017/050339)  
[87] (WO2017/204643)  
[30] NL (2016850) 2016-05-27

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[11] **3,026,473**  
[13] C

[51] **Int.Cl. A47C 20/04 (2006.01) A61G 7/015 (2006.01)**  
[25] EN  
[54] **AN ADJUSTABLE BED HAVING A MATTRESS SUPPORT SECTION**  
[54] **LIT AJUSTABLE COMPRENANT UNE SECTION DE SUPPORT DE MATELAS**  
[72] BROWN, PAUL, GB  
[73] MOTUS MECHANICS LIMITED, GB  
[85] 2018-12-04  
[86] 2017-06-13 (PCT/GB2017/051722)  
[87] (WO2017/216547)  
[30] GB (1610212.1) 2016-06-13

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[11] **3,027,278**  
[13] C

[51] **Int.Cl. B61B 7/00 (2006.01) B61B 12/00 (2006.01)**  
[25] EN  
[54] **SECOND-GENERATION BINARY TRACK SAFETY TRAVERSE SYSTEM**  
[54] **SYSTEME DE TRAVERSEE DE SECURITE DE VOIE BINAIRE DE DEUXIEME GENERATION**  
[72] HRENIUK-MITCHELL, DARREN W., CR  
[73] BUTTERCUP BUSINESS, INC., CR  
[73] HRENIUK-MITCHELL, DARREN W., CR  
[85] 2018-12-11  
[86] 2016-06-17 (PCT/CA2016/050714)  
[87] (WO2017/214699)

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[11] **3,027,343**  
[13] C

[51] **Int.Cl. G01N 33/50 (2006.01) G01N 33/68 (2006.01)**  
[25] EN  
[54] **MARKERS AND THEIR RATIO TO DETERMINE THE RISK FOR EARLY-ONSET PREECLAMPSIA**  
[54] **MARQUEURS ET LEUR RAPPORT POUR DETERMINER LE RISQUE DE PRE-ECLAMPSIE PRECOCE**  
[72] SCHUITEMAKER, JOOST HENRIC NICOLAAS, NL  
[73] IQ PRODUCTS B.V., NL  
[85] 2018-12-11  
[86] 2017-06-14 (PCT/NL2017/050392)  
[87] (WO2017/217844)  
[30] NL (2016967) 2016-06-15

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[13] C

[51] **Int.Cl. G01N 33/569 (2006.01) G01N 33/574 (2006.01)**  
[25] EN  
[54] **PHOSPHOLIPID ETHER ANALOGS FOR THE IDENTIFICATION AND ISOLATION OF CIRCULATING TUMOR CELLS**  
[54] **ANALOGUES D'ETHER PHOSPHOLIPIDIQUE POUR L'IDENTIFICATION ET L'ISOLEMENT DE CELLULES TUMORALES CIRCULANTES**  
[72] WEICHERT, JAMEY, US  
[72] PAK, CHOROM, US  
[72] PINCHUK, ANATOLY, US  
[72] KOZAK, KEVIN, US  
[72] LONGINO, MARC, US  
[73] COLLECTAR BIOSCIENCES, INC., US  
[85] 2018-12-12  
[86] 2017-06-14 (PCT/US2017/037549)  
[87] (WO2017/218702)  
[30] US (62/349,713) 2016-06-14

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[11] **3,028,438**  
[13] C

[51] **Int.Cl. B01J 37/06 (2006.01) B01J 29/40 (2006.01) B01J 29/70 (2006.01) B01J 29/80 (2006.01)**  
[25] EN  
[54] **MESOPOROUS ZSM-22 FOR INCREASED PROPYLENE PRODUCTION**  
[54] **ZEOLITE ZSM-22 MESOPOREUSE POUR LA PRODUCTION ACCRUE DE PROPYLENE**  
[72] CANOS, AVELINO CORMA, ES  
[72] MARTINEZ-TRIGUERO, JOAQUIN, ES  
[73] ALBEMARLE CORPORATION, US  
[85] 2018-12-18  
[86] 2017-06-24 (PCT/US2017/039158)  
[87] (WO2017/223546)  
[30] US (62/354,451) 2016-06-24

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[11] **3,028,604**  
[13] C

[51] **Int.Cl. A61M 16/00 (2006.01) A61B 5/08 (2006.01) A61B 5/087 (2006.01)**  
[25] EN  
[54] **SMART OSCILLATING POSITIVE EXPIRATORY PRESSURE DEVICE**  
[54] **DISPOSITIF INTELLIGENT DE PRESSION EXPIRATOIRE POSITIVE OSCILLANTE**  
[72] KIRCHNER, ALANNA, CA  
[72] MORTON, ROBERT, CA  
[72] MEYER, ADAM, CA  
[72] SCAROTT, PETER, CA  
[72] COSTELLA, STEPHEN, CA  
[73] TRUDELL MEDICAL INTERNATIONAL, CA  
[85] 2018-12-19  
[86] 2017-07-07 (PCT/IB2017/054123)  
[87] (WO2018/007997)  
[30] US (62/359,970) 2016-07-08

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[11] **3,028,832**  
[13] C

[51] **Int.Cl. B01J 8/02 (2006.01) B01J 8/00 (2006.01)**  
[25] EN  
[54] **WALL FOR CATALYTIC BEDS OF REACTORS AND METHOD FOR REALIZING THE SAME**  
[54] **PAROI POUR LITS CATALYTIQUES DE REACTEURS ET SON PROCEDE DE FABRICATION**  
[72] RIZZI, ENRICO, IT  
[73] CASALE SA, CH  
[85] 2018-12-20  
[86] 2017-04-20 (PCT/EP2017/059349)  
[87] (WO2017/220232)  
[30] EP (16175739.8) 2016-06-22

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[11] **3,030,850**  
[13] C

[51] **Int.Cl. A61B 5/00 (2006.01) A61B 5/11 (2006.01) G08B 21/04 (2006.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR USE IN DETECTING FALLS UTILIZING THERMAL SENSING**  
[54] **SYSTEMES ET PROCEDES DESTINES A ETRE UTILISES DANS LA DETECTION DES CHUTES EN UTILISANT LA DETECTION THERMIQUE**  
[72] CHRONIS, GEORGE, US  
[72] STONE, ERIK, US  
[72] SCHAUMBURG, MARK, US  
[73] FORESITE HEALTHCARE, LLC, US  
[85] 2019-01-14  
[86] 2017-06-27 (PCT/US2017/039529)  
[87] (WO2018/005513)  
[30] US (62/355,728) 2016-06-28  
[30] US (15/248,810) 2016-08-26

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[11] **3,031,563**  
[13] C

[51] **Int.Cl. C07D 471/10 (2006.01) A61K 31/407 (2006.01) A61K 31/438 (2006.01) A61P 25/00 (2006.01) C07D 487/10 (2006.01)**

[25] EN

[54] **SPIRO-LACTAM NMDA MODULATORS AND METHODS OF USING SAME**

[54] **MODULATEURS DE NMDA SPIRO-LACTAME ET LEURS PROCEDES D'UTILISATION**

[72] KHAN, M. AMIN, US

[73] APTINIX INC., US

[85] 2019-01-21

[86] 2017-08-01 (PCT/US2017/044871)

[87] (WO2018/026798)

[30] US (62/369,529) 2016-08-01

[30] US (62/443,915) 2017-01-09

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[11] **3,031,890**  
[13] C

[51] **Int.Cl. A61K 51/04 (2006.01) A61K 31/138 (2006.01) A61K 31/395 (2006.01) A61K 45/06 (2006.01) A61K 49/00 (2006.01) A61P 19/02 (2006.01) A61P 19/10 (2006.01) A61P 35/00 (2006.01)**

[25] EN

[54] **COMPOSITION FOR CROSS TALK BETWEEN ESTROGEN RECEPTORS AND CANNABINOID RECEPTORS**

[54] **COMPOSITION POUR LA DIAPHONIE ENTRE DES RECEPTEURS D'OESTROGENE ET DES RECEPTEURS CANNABINOIDES**

[72] YANG, DAVID J., US

[72] CHANG, WEI-CHUNG, TW

[72] CHUNG, MIN-CHING, TW

[72] KE, CHI-SHIANG, TW

[72] KUO, TSUNG-TIEN, TW

[73] SEECURE TAIWAN CO., LTD., CN

[86] (3031890)

[87] (3031890)

[22] 2019-01-30

[30] US (16/131,045) 2018-09-14

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[11] **3,033,081**  
[13] C

[51] **Int.Cl. C03C 25/50 (2006.01)**

[25] EN

[54] **COATED PANEL AND METHOD FOR MANUFACTURING A COATED PANEL**

[54] **PANNEAU REVETU ET SON PROCEDE DE FABRICATION**

[72] DOHRING, DIETER, DE

[72] BIEHLER, MANFRED, DE

[73] LIGNUM TECHNOLOGIES AG, CH

[85] 2019-02-06

[86] 2016-08-19 (PCT/EP2016/069689)

[87] (WO2018/033215)

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[11] **3,035,725**  
[13] C

[51] **Int.Cl. C10G 47/02 (2006.01) C10G 47/14 (2006.01)**

[25] EN

[54] **PROCESS FOR ACTIVATION AND OPERATION OF A HYDROCARBON UPGRADING CATALYST**

[54] **PROCEDE D'ACTIVATION ET DE FONCTIONNEMENT D'UN CATALYSEUR DE VALORISATION D'HYDROCARBURES**

[72] NEMAC, LARRY, US

[73] BP P.L.C., GB

[85] 2019-03-04

[86] 2017-09-04 (PCT/EP2017/072130)

[87] (WO2018/046449)

[30] US (62/383694) 2016-09-06

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[11] **3,038,602**  
[13] C

[51] **Int.Cl. A61K 31/52 (2006.01) A61K 9/08 (2006.01) A61K 9/20 (2006.01) A61K 9/52 (2006.01) A61P 1/00 (2006.01)**

[25] EN

[54] **EXTENDED-RELEASE FORMULATIONS COMPRISING 6-THIOGUANINE**

[54] **FORMULATIONS A LIBERATION PROLONGEE COMPRENANT DE LA 6-THIOGUANINE**

[72] FLORIN, TIMOTHY, AU

[72] POPAT, AMIRALI, AU

[72] JAMBHRUNKAR, SIDDHARTH, AU

[73] PRODRUGXTEND PTY LTD, AU

[85] 2019-03-26

[86] 2016-09-29 (PCT/AU2016/050910)

[87] (WO2017/054042)

[30] AU (2015903951) 2015-09-29

[30] AU (2016901896) 2016-05-20

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[11] **3,038,718**  
[13] C

[51] **Int.Cl. B64D 13/06 (2006.01) B64D 41/00 (2006.01)**

[25] EN

[54] **AUXILIARY AIR SUPPLY FOR AN AIRCRAFT**

[54] **ALIMENTATION AUXILIAIRE EN AIR POUR UN AERONEF**

[72] CASADO-MONTERO, CARLOS, ES

[72] BARREIRO RODRIGUEZ, VICTOR, ES

[72] CARRASCO CARRASCAL, ALEXANDRA, ES

[73] AIRBUS OPERATIONS, S.L., ES

[85] 2019-03-28

[86] 2016-09-29 (PCT/ES2016/070684)

[87] (WO2018/060531)

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[11] **3,038,725**  
[13] C

[51] **Int.Cl. F04B 13/00 (2006.01) F04B 15/04 (2006.01) F04B 43/00 (2006.01) F04B 43/02 (2006.01) F04B 43/06 (2006.01) F04B 43/067 (2006.01)**

[25] EN

[54] **DIAPHRAGM WITH EDGE SEAL**

[54] **MEMBRANE AVEC JOINT D'ETANCHEITE DE BORD**

[72] POINDEXTER, DAVID, US

[72] TAYLOR, NEIL, US

[73] WANNER ENGINEERING, INC., US

[85] 2019-03-27

[86] 2017-08-31 (PCT/US2017/049712)

[87] (WO2018/045221)

[30] US (62/382,639) 2016-09-01

[30] US (15/599,814) 2017-05-19

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[11] **3,039,108**  
[13] C

[51] **Int.Cl. G02B 6/00 (2006.01) F21V 8/00 (2006.01) G02B 6/12 (2006.01) G02F 1/136 (2006.01)**

[25] EN

[54] **OUTCOUPLING GRATING FOR AUGMENTED REALITY SYSTEM**

[54] **RESEAU DE DE COUPLAGE EN SORTIE POUR SYSTEME DE REALITE AUGMENTEE**

[72] TEKOLSTE, ROBERT D., US

[72] LIU, VICTOR K., US

[73] MAGIC LEAP, INC., US

[85] 2019-03-29

[86] 2017-10-25 (PCT/US2017/058351)

[87] (WO2018/081305)

[30] US (62/413,288) 2016-10-26

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[11] **3,039,645**  
[13] C

[51] **Int.Cl. H04M 3/22 (2006.01) H04W 4/02 (2018.01)**  
[25] EN  
[54] **SYSTEM AND METHOD FOR DETECTING AND CONTROLLING CONTRABAND DEVICES IN A CONTROLLED ENVIRONMENT**  
[54] **SYSTEME ET PROCEDE DE DETECTION ET DE COMMANDE DE DISPOSITIFS DE CONTREBANDE DANS UN ENVIRONNEMENT CONTROLE**  
[72] HODGE, STEPHEN LEE, US  
[73] GLOBAL TEL\*LINK CORP., US  
[85] 2019-04-05  
[86] 2017-10-03 (PCT/US2017/054974)  
[87] (WO2018/067592)  
[30] US (15/286,294) 2016-10-05

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[11] **3,041,018**  
[13] C

[51] **Int.Cl. F16L 37/14 (2006.01)**  
[25] EN  
[54] **PIPE JOINT**  
[54] **RACCORD DE TUYAUX**  
[72] MANNING, JOHN PATRICK, GB  
[72] MITCHELL, HENRY, GB  
[73] MMC FITTINGS LIMITED, GB  
[85] 2019-04-17  
[86] 2016-10-25 (PCT/GB2016/053324)  
[87] (WO2018/078309)

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[11] **3,041,032**  
[13] C

[51] **Int.Cl. A61B 17/00 (2006.01) A61B 17/34 (2006.01) A61M 1/36 (2006.01) A61M 25/00 (2006.01) A61M 25/01 (2006.01)**  
[25] EN  
[54] **TRANSSEPTAL INSERTION DEVICE**  
[54] **DISPOSITIF D'INSERTION PAR VOIE TRANSSEPTALE**  
[72] MAINI, BRIJESHWAR S., US  
[73] EAST END MEDICAL LLC, US  
[85] 2019-04-17  
[86] 2017-10-17 (PCT/US2017/056843)  
[87] (WO2018/075426)  
[30] US (62/409,448) 2016-10-18  
[30] US (15/784,792) 2017-10-16

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[11] **3,045,029**  
[13] C

[51] **Int.Cl. B29C 33/42 (2006.01) E04C 2/36 (2006.01)**  
[25] EN  
[54] **SHEET MATERIAL, MOLD, AND METHODS OF MAKING AND USING THE SHEET MATERIAL AND MOLD**  
[54] **MATERIAU EN FEUILLE, MOULE, ET PROCEDES DE FABRICATION ET D'UTILISATION DU MATERIAU EN FEUILLE ET DU MOULE**  
[72] BINGHAM, ROBERT J., US  
[73] RIGIDCORE GROUP LLC, US  
[85] 2019-05-24  
[86] 2018-04-23 (PCT/US2018/028801)  
[87] (WO2018/200353)  
[30] US (62/489,060) 2017-04-24

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[11] **3,047,102**  
[13] C

[51] **Int.Cl. C22B 5/04 (2006.01)**  
[25] EN  
[54] **A METHOD FOR PRODUCING TITANIUM-ALUMINUM-VANADIUM ALLOY**  
[54] **PROCEDE DE PRODUCTION D'ALLIAGE DE TITANE-ALUMINIUM-VANADIUM**  
[72] COX, JAMES R., US  
[72] DE ALWIS, CHANAKA, US  
[72] KOHLER, BENJAMIN A., US  
[72] LEWIS, MICHAEL G., US  
[73] UNIVERSAL ACHEMETAL TITANIUM, LLC, US  
[85] 2019-03-14  
[86] 2017-09-13 (PCT/US2017/051399)  
[87] (WO2018/125322)  
[30] US (62/394,588) 2016-09-14

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[13] C

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[25] EN  
[54] **MEDIA BED FOR WASTE STREAMS AND SYSTEMS EMPLOYING THE SAME**  
[54] **LIT DE MILIEU POUR FLUX DE DECHETS ET SYSTEMES LES UTILISANT**  
[72] NICKERSON, PAUL W., US  
[72] FOSTER, DAVID K., US  
[73] INTEGRATED AGRICULTURE SYSTEMS, INC., US  
[85] 2019-06-13  
[86] 2017-12-15 (PCT/US2017/066675)  
[87] (WO2018/112343)  
[30] US (62/434,848) 2016-12-15

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[11] **3,047,602**  
[13] C

[51] **Int.Cl. H01F 7/127 (2006.01) H01F 7/08 (2006.01) H01F 27/02 (2006.01)**  
[25] EN  
[54] **ELECTROMAGNETIC COIL CONNECTION ASSEMBLY AND ASSOCIATED METHOD**  
[54] **ENSEMBLE DE CONNEXION DE BOBINE ELECTROMAGNETIQUE ET PROCEDE ASSOCIE**  
[72] CAYTON, ROBERT DONALD, DE  
[72] BRAND, BASTIAN MICHAEL HORST, DE  
[73] HORTON, INC., US  
[85] 2019-06-18  
[86] 2018-01-30 (PCT/US2018/015884)  
[87] (WO2018/144428)  
[30] US (62/453,230) 2017-02-01

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[11] **3,047,619**  
[13] C

- [51] **Int.Cl. E21B 41/00 (2006.01) E21B 41/02 (2006.01) E21B 47/12 (2012.01)**  
[25] EN  
[54] **DOWNHOLE ENERGY HARVESTING**  
[54] **DISPOSITIF DE RECUPERATION D'ENERGIE EN FOND DE TROU**  
[72] ROSS, SHAUN COMPTON, GB  
[72] JARVIS, LESLIE DAVID, GB  
[72] HUDSON, STEVEN MARTIN, GB  
[73] METROL TECHNOLOGY LTD, GB  
[85] 2019-06-19  
[86] 2016-12-30 (PCT/GB2016/054098)  
[87] (WO2018/122547)

[11] **3,047,851**  
[13] C

- [51] **Int.Cl. G06F 8/60 (2018.01) G06F 3/14 (2006.01) H04L 12/16 (2006.01)**  
[25] EN  
[54] **SYSTEM AND METHOD FOR CLOUD-BASED USER INTERFACE APPLICATION DEPLOYMENT**  
[54] **SYSTEME ET PROCEDE DE DEPLOIEMENT D'APPLICATION D'INTERFACE UTILISATEUR EN NUAGE**  
[72] RUSSELL, STUART, CA  
[72] CHIASSON, MATHIEU-ANDRE, CA  
[73] WARNERMEDIA DIRECT, LLC, US  
[85] 2019-06-20  
[86] 2017-12-21 (PCT/CA2017/051582)  
[87] (WO2018/112655)  
[30] US (62/437,237) 2016-12-21

[11] **3,049,078**  
[13] C

- [51] **Int.Cl. E21B 33/08 (2006.01) E21B 17/10 (2006.01) E21B 21/10 (2006.01) E21B 33/06 (2006.01)**  
[25] EN  
[54] **ROTATING CONTROL DEVICE HAVING A LOCKING BLOCK SYSTEM**  
[54] **DISPOSITIF DE COMMANDE DE ROTATION DOTE D'UN SYSTEME DE BLOCS DE SERRURE**  
[72] YOUSEF, FAISAL, US  
[72] VU, TOMMY, US  
[72] ELLIS, BRIAN, US  
[73] NABORS DRILLING TECHNOLOGIES USA, INC., US  
[86] (3049078)  
[87] (3049078)  
[22] 2019-07-10  
[30] US (16/054974) 2018-08-03

[11] **3,049,081**  
[13] C

- [51] **Int.Cl. E21B 33/03 (2006.01) E21B 33/12 (2006.01)**  
[25] EN  
[54] **QUICK DISCONNECT STRIPPER PACKER COUPLING ASSEMBLY**  
[54] **ENSEMBLE D'ACCOUPEMENT DE DISPOSITIFS D'ETANCHEITE POUR TIGE D'EXTRACTION A DEBRANCHEMENT RAPIDE**  
[72] YOUSEF, FAISAL, US  
[72] VU, TOMMY, US  
[73] NABORS DRILLING TECHNOLOGIES USA, INC., US  
[86] (3049081)  
[87] (3049081)  
[22] 2019-07-10  
[30] US (16/054969) 2018-08-03

[11] **3,050,778**  
[13] C

- [51] **Int.Cl. G16Z 99/00 (2019.01) G06Q 50/04 (2012.01) B64F 5/60 (2017.01)**  
[25] EN  
[54] **AUGMENTED REALITY SYSTEM FOR VISUALIZING NONCONFORMANCE DATA FOR AN OBJECT**  
[54] **SYSTEME DE REALITE AUGMENTEE POUR VISUALISER DES DONNEES DE NON-CONFORMITE POUR UN OBJET**  
[72] SCOTT, JEREMIAH KENT, US  
[72] BAKER, ROBERT STEPHEN KANEMATSU, US  
[72] BERETTA, BRYAN JAMES, US  
[72] BERNARDONI, MICHAEL LOUIS, US  
[73] THE BOEING COMPANY, US  
[86] (3050778)  
[87] (3050778)  
[22] 2019-07-26  
[30] US (16/158579) 2018-10-12

[11] **3,051,009**  
[13] C

- [51] **Int.Cl. E05B 47/00 (2006.01) E05B 47/06 (2006.01) E05B 65/10 (2006.01)**  
[25] EN  
[54] **EXIT DEVICE WITH OVER-TRAVEL MECHANISM**  
[54] **DISPOSITIF DE SORTIE AVEC MECANISME DE SURCOURSE**  
[72] ARLINGHAUS, PAUL RAYMOND, US  
[72] LEHNER, JACK R., JR., US  
[73] SCHLAGE LOCK COMPANY LLC, US  
[86] (3051009)  
[87] (3051009)  
[22] 2014-12-30  
[62] 2,876,417  
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[13] C

[51] **Int.Cl. B01D 21/00 (2006.01) B01D 21/32 (2006.01) B01D 21/34 (2006.01) G01N 1/20 (2006.01) G05B 13/04 (2006.01) G05B 15/00 (2006.01)**

[25] EN

[54] **METHOD AND ARRANGEMENT FOR CONTROLLING A DEWATERING PROCESS**

[54] **PROCEDE ET AGENCEMENT DESTINES A COMMANDER UN PROCEDE DE DESHYDRATATION**

[72] KOSONEN, MIKA, FI

[72] KAUVOSAARI, SAKARI, FI

[73] METSO OUTOTEC FINLAND OY, FI

[85] 2019-08-05

[86] 2017-02-10 (PCT/FI2017/050078)

[87] (WO2018/146371)

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[11] **3,053,113**  
[13] C

[51] **Int.Cl. A61B 17/80 (2006.01)**

[25] EN

[54] **PECTUS BAR AND STABILIZER DEVICES AND METHODS**

[54] **BARRE DE PECTUS ET DISPOSITIFS ET PROCEDES STABILISATEURS**

[72] GARCIA, SADDY, US

[72] GARFIELD, JAYDEN, US

[73] ZIMMER BIOMET CMF AND THORACIC, LLC, US

[85] 2019-08-08

[86] 2018-02-09 (PCT/US2018/017663)

[87] (WO2018/148572)

[30] US (62/457,532) 2017-02-10

[30] US (62/483,494) 2017-04-10

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[11] **3,053,246**  
[13] C

[51] **Int.Cl. B24B 3/42 (2006.01)**

[25] EN

[54] **JIG ASSEMBLY FOR SHARPENING MOWER BLADES**

[54] **ENSEMBLE GABARIT POUR AFFUTER DES LAMES DE FAUCHEUSE**

[72] AUSTIN, TODD, US

[73] AUSTIN, TODD, US

[85] 2019-08-09

[86] 2018-03-02 (PCT/US2018/020636)

[87] (WO2018/164950)

[30] US (62/468,717) 2017-03-08

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[11] **3,053,708**  
[13] C

[51] **Int.Cl. C07G 1/00 (2011.01) C07C 51/00 (2006.01) C07C 59/08 (2006.01) C07C 67/00 (2006.01) C07C 69/12 (2006.01) C13K 13/00 (2006.01)**

[25] EN

[54] **HEMICELLULOSE PROCESSING METHOD**

[54] **PROCEDE DE TRAITEMENT D'HEMICELLULOSE**

[72] MARSHALL, EDWARD LESLIE, GB

[72] WAITE, ALAN GEOFFREY, GB

[72] GIBNEY, DAVID PETER, GB

[73] SAPPI BIOTECH UK LIMITED, GB

[85] 2019-08-15

[86] 2018-02-23 (PCT/GB2018/050474)

[87] (WO2018/154314)

[30] GB (1702892.9) 2017-02-23

[30] GB (1718992.9) 2017-11-16

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[11] **3,055,255**  
[13] C

[51] **Int.Cl. E05B 47/06 (2006.01) E05B 47/00 (2006.01) E05B 49/02 (2006.01) E05B 53/00 (2006.01) E05B 63/00 (2006.01)**

[25] EN

[54] **LOCKING MECHANISM FOR BORED LOCK**

[54] **MECANISME DE VERROUILLAGE POUR SERRURE ENCASTREE**

[72] WONG, WAI P., US

[72] LORELLO, MICHAEL, US

[72] O'DAY, ADAM, US

[73] SARGENT MANUFACTURING COMPANY, US

[85] 2019-09-03

[86] 2018-03-06 (PCT/US2018/021094)

[87] (WO2018/165121)

[30] US (62/468,415) 2017-03-08

[30] US (62/472,630) 2017-03-17

[30] US (15/911,724) 2018-03-05

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[13] C

[51] **Int.Cl. C07D 319/06 (2006.01) C07C 235/80 (2006.01) C07C 237/16 (2006.01) C07D 213/82 (2006.01) C07D 309/40 (2006.01) C07D 498/18 (2006.01)**

[25] EN

[54] **SYNTHESIS OF POLYCYCLIC-CARBAMOYL PYRIDONE COMPOUNDS**

[54] **SYNTHESE DE COMPOSES DE CARBAMOYL PYRIDONE POLYCYCLIQUES**

[72] CHIU, ANNA, US

[72] ENQUIST, JOHN, US

[72] GRIGGS, NOLAN, US

[72] HALE, CHRISTOPHER, US

[72] IKEMOTO, NORIHIRO, US

[72] KEATON, KATIE ANN, US

[72] KRAFT, MATT, US

[72] LAZERWITH, SCOTT E., US

[72] LEEMAN, MICHEL, NL

[72] PENG, ZHIHUI, US

[72] SCHRIER, KATE, US

[72] TRINIDAD, JONATHAN, US

[72] HERPT, JOCHEM VAN, NL

[72] WALTMAN, ANDREW W., US

[73] GILEAD SCIENCES, INC., US

[86] (3059135)

[87] (3059135)

[22] 2015-06-16

[62] 2,950,300

[30] US (62/015.081) 2014-06-20

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[11] **3,059,507**  
[13] C

[51] **Int.Cl. B65D 47/00 (2006.01)**

[25] EN

[54] **CAP FOR DRINK BOTTLE OR SIMILAR RECIPIENT**

[54] **BOUCHON POUR BOUTEILLE A BREUVAGE OU CONTENANT SEMBLABLE**

[72] GARCIA ALBEROLA, JOSE MARIA, ES

[73] MANUFACTURAS INPLAST, S.A., ES

[85] 2019-10-09

[86] 2018-03-22 (PCT/ES2018/070220)

[87] (WO2018/178448)

[30] ES (U201700233) 2017-03-30

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[11] **3,063,988**

[13] C

- [51] **Int.Cl. C02F 3/30 (2006.01)**  
[25] EN  
[54] **CONTROLLED SIMULTANEOUS NITRIFICATION AND DENITRIFICATION IN WASTEWATER TREATMENT**  
[54] **NITRIFICATION ET DENITRIFICATION SIMULTANÉES RÉGULÉES DANS LE TRAITEMENT DES EAUX USEES**  
[72] VAN DIJK, EDWARD JOHN  
HENRIK, NL  
[72] VAN SCHAGEN, KIM MICHAEL, NL  
[72] OOSTERHOFF, ANTHONY  
THEODOOR, NL  
[73] HASKONINGDHV NEDERLAND  
B.V., NL  
[85] 2019-11-18  
[86] 2018-05-23 (PCT/EP2018/063559)  
[87] (WO2018/215561)  
[30] NL (2018967) 2017-05-23

[11] **3,065,489**

[13] C

- [51] **Int.Cl. G06Q 20/32 (2012.01) G06Q 20/36 (2012.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR REAL-TIME APPLICATION CONFIGURATION FOR NFC TRANSACTIONS**  
[54] **SYSTEMES ET PROCÉDES DE CONFIGURATION D'APPLICATION EN TEMPS REEL POUR DES TRANSACTIONS NFC**  
[72] SPECTOR, HOWARD, US  
[72] DAO, TUAN, US  
[73] JPMORGAN CHASE BANK, N.A., US  
[85] 2019-11-28  
[86] 2018-05-22 (PCT/US2018/033794)  
[87] (WO2018/222438)  
[30] US (62/512,781) 2017-05-31  
[30] US (15/979,727) 2018-05-15

[11] **3,066,355**

[13] C

- [51] **Int.Cl. A22B 3/06 (2006.01) A22B 1/00 (2006.01) A22B 3/08 (2006.01)**  
[25] EN  
[54] **STUNNER/KILLER ELECTRODE PLATE AND TROUGH**  
[54] **PLAQUE D'ELECTRODES D'ETOURDISSEMENT/D'ABATTA GE ET GOUTTIERE**  
[72] AIREY, JEFFREY L., US  
[72] ARP, DERRICK C., US  
[72] CLAY, STEPHAN A., US  
[73] SIMMONS ENGINEERING  
COMPANY, US  
[85] 2019-12-05  
[86] 2018-05-02 (PCT/US2018/030673)  
[87] (WO2018/204508)  
[30] US (15/586,970) 2017-05-04

[11] **3,071,101**

[13] C

- [51] **Int.Cl. H04W 80/06 (2009.01) H04L 43/0829 (2022.01) H04L 47/40 (2022.01) H04L 67/1074 (2022.01) H04L 67/141 (2022.01) H04L 67/2876 (2022.01) H04L 69/163 (2022.01) H04W 28/02 (2009.01)**  
[25] EN  
[54] **SMART SPOOFING TO IMPROVE SPOOFING PERFORMANCE WHEN RESOURCES ARE SCARCE**  
[54] **MYSTIFICATION INTELLIGENTE DESTINEE A AMELIORER LES PERFORMANCES DE MYSTIFICATION LORSQUE DES RESSOURCES SONT RARES**  
[72] BORDER, JOHN, US  
[73] HUGHES NETWORK SYSTEMS,  
LLC, US  
[85] 2020-01-24  
[86] 2018-07-25 (PCT/US2018/043780)  
[87] (WO2019/027774)  
[30] US (15/665,331) 2017-07-31

[11] **3,071,381**

[13] C

- [51] **Int.Cl. H04B 7/185 (2006.01) H04W 24/02 (2009.01) H04W 24/04 (2009.01)**  
[25] EN  
[54] **SCINTILLATION MITIGATION IN GEOGRAPHICALLY DISTRIBUTED SATELLITE ACCESS NODES**  
[54] **ATTENUATION DE SCINTILLATION DANS DES NOEUDS D'ACCES PAR SATELLITE GEOGRAPHIQUEMENT DISTRIBUES**  
[72] DANKBERG, MARK, US  
[73] VIASAT, INC., US  
[85] 2020-01-28  
[86] 2018-01-25 (PCT/US2018/015238)  
[87] (WO2019/027500)  
[30] US (62/539,933) 2017-08-01

[11] **3,071,942**

[13] C

- [51] **Int.Cl. H04W 48/18 (2009.01) H04W 48/16 (2009.01) H04W 48/20 (2009.01)**  
[25] EN  
[54] **PRIORITIZING PREFERRED NETWORKS**  
[54] **CLASSEMENT PAR ORDRE DE PRIORITE DE RESEAUX PREFERES**  
[72] LOGAN, WILLIAM KENNETH, US  
[72] JAUNCEY, OLIVER JAMES, GB  
[73] CHARTER COMMUNICATIONS  
OPERATING, LLC, US  
[85] 2020-02-03  
[86] 2018-07-10 (PCT/US2018/041514)  
[87] (WO2019/027640)  
[30] US (15/669,167) 2017-08-04

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[11] **3,072,427**  
[13] C

[51] **Int.Cl. G16H 50/20 (2018.01) G16H 20/10 (2018.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR TREATING AND ESTIMATING PROGRESSION OF CHRONIC KIDNEY DISEASE**  
[54] **SYSTEMES ET PROCEDES DE TRAITEMENT ET D'ESTIMATION DE LA PROGRESSION D'UNE MALADIE RENALE CHRONIQUE**  
[72] BLANCHARD, THOMAS C., US  
[72] USVYAT, LEN, US  
[72] WANG, YUEDONG, US  
[72] KOTANKO, PETER, US  
[72] MADDUX, DUGAN W., US  
[72] MADDUX, FRANKLIN W., US  
[73] FRESINIUS MEDICAL CARE HOLDINGS, INC., US  
[85] 2020-02-07  
[86] 2018-08-08 (PCT/US2018/045871)  
[87] (WO2019/032746)  
[30] US (62/542,633) 2017-08-08

[11] **3,075,461**  
[13] C

[51] **Int.Cl. C07D 487/04 (2006.01)**  
[25] EN  
[54] **4-[[[(7-AMINOPYRAZOLO[1,5-A]PYRIMIDIN-5-YL)AMINO]METHYL]PIPERIDIN-3-OL COMPOUNDS AS CDK INHIBITORS**  
[54] **COMPOSES DE 4-[[[(7-AMINOPYRAZOLO[1,5-A]PYRIMIDIN-5-YL)AMINO]METHYL]PIPERIDIN-3-OL UTILISES EN TANT QU'INHIBITEURS DE CDK**  
[72] BAHL, ASH, IE  
[72] AINSCOW, ED, IE  
[72] BONDKE, ALEXANDER, DE  
[72] BARRETT, ANTHONY G.M., BR  
[72] SUNOSE, MIHIRO, GB  
[72] SHIERS, JASON JOHN, GB  
[72] CHOHAN, KAMALDEEP, GB  
[73] CARRICK THERAPEUTICS LIMITED, IE  
[73] CANCER RESEARCH TECHNOLOGY LIMITED, GB  
[73] IP2IPO INNOVATIONS LIMITED, GB  
[85] 2020-03-10  
[86] 2018-09-20 (PCT/EP2018/075482)  
[87] (WO2019/057825)  
[30] GB (1715194.5) 2017-09-20

[11] **3,075,542**  
[13] C

[51] **Int.Cl. B01J 20/20 (2006.01) B01J 20/28 (2006.01)**  
[25] EN  
[54] **LOW EMISSIONS, HIGH WORKING CAPACITY ADSORBENT AND CANISTER SYSTEM**  
[54] **ADSORBANT A FAIBLE EMISSION, A CAPACITE DE FONCTIONNEMENT ELEVEE ET SYSTEME ABSORBEUR**  
[72] HILTZIK, LAURENCE H., US  
[72] MILLER, JAMES R., US  
[72] WILLIAMS, ROGER S., US  
[72] THOMSON, CAMERON I., US  
[72] HEIM, MICHAEL G., US  
[72] CARD, EMMA M., US  
[73] INGEVITY SOUTH CAROLINA, LLC, US  
[85] 2020-03-10  
[86] 2018-10-01 (PCT/US2018/053823)  
[87] (WO2019/068111)  
[30] US (62/565,699) 2017-09-29

[11] **3,076,663**  
[13] C

[51] **Int.Cl. C04B 35/622 (2006.01)**  
[25] EN  
[54] **CRYSTALLINE SILICA FREE LOW BIOPERSISTENCE INORGANIC FIBER**  
[54] **FIBRE INORGANIQUE A FAIBLE BIOPERSISTENCE EXEMPT DE SILICE CRISTALLINE**  
[72] ZHAO, DONGHUI, US  
[72] ZOITOS, BRUCE K., US  
[72] ANDREJCAK, MICHAEL J., US  
[72] HAMILTON, JASON M., US  
[72] HANSON, KAREN L., US  
[73] UNIFRAX I LLC, US  
[85] 2020-03-20  
[86] 2018-10-05 (PCT/US2018/054636)  
[87] (WO2019/074794)  
[30] US (62/570,122) 2017-10-10

[11] **3,077,294**  
[13] C

[51] **Int.Cl. C12N 5/0797 (2010.01) C12N 5/079 (2010.01)**  
[25] EN  
[54] **METHOD FOR INDUCING DIFFERENTIATION OF STEM CELL INTO DOPAMINERGIC NEURAL PRECURSOR CELL**  
[54] **PROCEDE D'INDUCTION DE LA DIFFERENCIATION DE CELLULES SOUCHES DANS DES CELLULES NEURALES DOPAMINERGIQUES**  
[72] CHO, MYUNG SOO, KR  
[72] EOM, JANG HYEON, KR  
[72] NAM, SEUNG TAEK, KR  
[73] S-BIOMEDICS, KR  
[85] 2020-03-27  
[86] 2020-03-25 (PCT/KR2020/004065)  
[87] (WO2021/060637)  
[30] KR (10-2019-0118370) 2019-09-25  
[30] KR (10-2020-0027801) 2020-03-05

[11] **3,077,363**  
[13] C

[51] **Int.Cl. A61B 8/08 (2006.01) A61B 8/14 (2006.01)**  
[25] EN  
[54] **MULTI-PLANE AND MULTI-MODE VISUALIZATION OF AN AREA OF INTEREST DURING AIMING OF AN ULTRASOUND PROBE**  
[54] **VISUALISATION MULTIPLAN ET MULTIMODE D'UNE ZONE D'INTERET PENDANT LA VISEE D'UNE SONDE A ULTRASONS**  
[72] CHOI, JOON HWAN, US  
[72] YANG, FUXING, US  
[73] VERATHON INC., US  
[85] 2020-03-27  
[86] 2018-10-03 (PCT/US2018/054108)  
[87] (WO2019/070812)  
[30] US (62/567,962) 2017-10-04



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[13] C

[51] **Int.Cl. A23L 2/56 (2006.01) C07H 15/256 (2006.01)**  
[25] EN  
[54] **SENSORY MODIFIER COMPOUNDS, COMPOSITIONS THEREOF, EDIBLE COMPOSITIONS THEREOF**  
[54] **COMPOSES DE MODIFICATEUR SENSORIEL, COMPOSITIONS CONNEXES ET COMPOSITIONS COMESTIBLES CONNEXES**  
[72] GASPARD, DAN S., US  
[72] MORTENSON, MICHAEL ALAN, US  
[72] SARANGAPANI, RAMA KRISHNA, US  
[72] SCHMELZER, WADE NOLAN, US  
[72] ZARTH, ADAM T., US  
[72] MARASCO, ERIN KATHLEEN, US  
[73] CARGILL, INCORPORATED, US  
[85] 2020-04-01  
[86] 2018-10-05 (PCT/US2018/054743)  
[87] (WO2019/071220)  
[30] US (62/569,279) 2017-10-06  
[30] US (62/676,722) 2018-05-25

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[11] **3,078,947**  
[13] C

[51] **Int.Cl. G06T 7/00 (2017.01) G06T 7/10 (2017.01)**  
[25] EN  
[54] **METHOD AND APPARATUS FOR IMAGING AN ORGAN**  
[54] **PROCEDE ET APPAREIL D'IMAGERIE D'ORGANE**  
[72] IRVING, BENJAMIN JOHN, GB  
[72] HUTTON, CHLOE, GB  
[72] PROFESSOR SIR BRADY, JOHN MICHAEL, GB  
[73] PERSPECTUM LTD, GB  
[85] 2020-04-10  
[86] 2018-10-12 (PCT/EP2018/077957)  
[87] (WO2019/076775)  
[30] GB (1717026.7) 2017-10-17

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[11] **3,079,411**  
[13] C

[51] **Int.Cl. C12Q 1/6874 (2018.01)**  
[25] EN  
[54] **SIMULTANEOUS BACKGROUND REDUCTION AND COMPLEX STABILIZATION IN BINDING ASSAY WORKFLOWS**  
[54] **REDUCTION DU BRUIT DE FOND ET STABILISATION DE COMPLEXES SIMULTANES DANS DES FLUX DE TRAVAUX DE DOSAGE PAR LIAISON**  
[72] AHN, KEUNHO, US  
[72] ROKICKI, JOSEPH, US  
[72] ROHRMAN, BRITTANY ANN, US  
[72] DAMBACHER, COREY M., US  
[73] PACIFIC BIOSCIENCES OF CALIFORNIA, INC., US  
[85] 2020-04-16  
[86] 2018-10-18 (PCT/US2018/056507)  
[87] (WO2019/079593)  
[30] US (62/574,308) 2017-10-19

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[11] **3,080,612**  
[13] C

[51] **Int.Cl. G01N 33/48 (2006.01) G16H 10/40 (2018.01)**  
[25] EN  
[54] **METHODS FOR PREDICTING IMMUNOTHERAPY RESPONSE OF SUBJECT HAVING CANCER**  
[54] **PROCEDES PERMETTANT DE PREDIRE LA REPONSE A UNE IMMUNOTHERAPIE D'UN SUJET ATTEINT D'UN CANCER**  
[72] LEE, CHIA-YING, TW  
[72] TSENG, JU-YU, TW  
[72] WANG, HONG-LING, TW  
[72] WANG, SHIN-HANG, TW  
[72] CHEN, JUI-LIN, TW  
[73] MICAREO TAIWAN CO., LTD., TW  
[86] (3080612)  
[87] (3080612)  
[22] 2020-05-15  
[30] US (62/847,960) 2019-05-15

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[11] **3,081,147**  
[13] C

[51] **Int.Cl. B01J 19/18 (2006.01) B01J 4/00 (2006.01) B01J 8/00 (2006.01) B01J 19/24 (2006.01)**  
[25] EN  
[54] **POLYMERIZATION REACTOR SYSTEM COMPRISING AT LEAST ONE WITHDRAWAL VALVE**  
[54] **SYSTEME DE REACTEUR DE POLYMERISATION COMPRENANT AU MOINS UNE VANNE DE RETRAIT**  
[72] WURNITSCH, CHRISTOF, AT  
[72] VIJAY, SAMEER, AT  
[72] ELOVAINIO, ERNO, FI  
[73] BOREALIS AG, AT  
[85] 2020-04-30  
[86] 2018-11-02 (PCT/EP2018/080046)  
[87] (WO2019/086623)  
[30] EP (17199959.2) 2017-11-03

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[11] **3,081,609**  
[13] C

[51] **Int.Cl. G06F 16/903 (2019.01) G06F 16/93 (2019.01) G06F 40/20 (2020.01)**  
[25] EN  
[54] **SYSTEM AND METHODS FOR CONCEPT AWARE SEARCHING**  
[54] **SYSTEME ET PROCEDES DE RECHERCHE CONCEPTUELLE**  
[72] CONRAD, JACK G., US  
[72] HUH, DOMINGO, CA  
[72] BROOKE, JULIAN, CA  
[72] DAVOODI, ELNAZ, CA  
[73] THOMSON REUTERS ENTERPRISE CENTRE GMBH, CH  
[85] 2020-05-01  
[86] 2018-11-06 (PCT/US2018/059447)  
[87] (WO2019/094384)  
[30] US (62/582,571) 2017-11-07  
[30] US (16/181,729) 2018-11-06

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[11] **3,084,468**  
[13] C

[51] **Int.Cl. A01C 5/06 (2006.01)**  
[25] EN  
[54] **SEED TRENCH CLOSING SENSORS**  
[54] **CAPTEURS DE FERMETURE DE SILLON DE SEMIS**  
[72] KOCH, DALE, US  
[72] STOLLER, JASON, US  
[72] SWANSON, TODD, US  
[72] STRNAD, MICHAEL, US  
[72] MORGAN, MATTHEW, US  
[72] RADTKE, IAN, US  
[72] KATER, TIMOTHY, US  
[72] HODEL, JERMEY, US  
[73] PRECISION PLANTING LLC, US  
[85] 2020-04-14  
[86] 2018-11-15 (PCT/US2018/061388)  
[87] (WO2019/099748)  
[30] US (62/586,397) 2017-11-15  
[30] US (62/640,279) 2018-03-08  
[30] US (62/672,993) 2018-05-17

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[11] **3,085,065**  
[13] C

[51] **Int.Cl. A61K 47/02 (2006.01) A61K 9/00 (2006.01) A61K 9/08 (2006.01) A61K 9/14 (2006.01) A61K 9/20 (2006.01) A61K 31/465 (2006.01) A61P 25/34 (2006.01)**  
[25] EN  
[54] **FORMULATIONS PROVIDING HIGH NICOTINE CONCENTRATIONS**  
[54] **FORMULATIONS FOURNISSANT DE FORTES CONCENTRATIONS DE NICOTINE**  
[72] NIELSEN, BRUNO PROVSTGAARD, DK  
[72] NIELSEN, KENT ALBIN, DK  
[73] FERTIN PHARMA A/S, DK  
[85] 2020-06-08  
[86] 2018-12-07 (PCT/DK2018/050338)  
[87] (WO2019/110075)  
[30] DK (PA 2017 70928) 2017-12-08

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[11] **3,085,257**  
[13] C

[51] **Int.Cl. G01V 1/145 (2006.01) H04R 1/44 (2006.01) H04R 5/02 (2006.01)**  
[25] EN  
[54] **UNDERWATER SUBWOOFER AND CLUSTERS**  
[54] **CAISSON DE BASSES IMMERGE ET GRAPPES**  
[72] MOROZOV, ANDREY K., US  
[73] TELEDYNE INSTRUMENTS, INC., US  
[86] (3085257)  
[87] (3085257)  
[22] 2020-07-02  
[30] US (16/459,875) 2019-07-02

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[11] **3,085,605**  
[13] C

[51] **Int.Cl. H04L 65/1023 (2022.01) H04L 12/66 (2006.01)**  
[25] EN  
[54] **SYSTEM FOR CONTENT TRIGGERED HIGH-SPEED DATA SERVICE DELIVERY INDEPENDENT OF MEDIA DELIVERY MECHANISMS**  
[54] **SYSTEME DE FOURNITURE DE SERVICES POUR DONNEES A GRANDE VITESSE DECLENCHEE PAR UN CONTENU INDEPENDAMMENT DE MECANISMES DE DISTRIBUTION DE SUPPORTS**  
[72] SHOOK, GEOFFREY A., US  
[73] BUCKEYE CABLEVISION, INC., US  
[86] (3085605)  
[87] (3085605)  
[22] 2020-07-03  
[30] US (62/870.206) 2019-07-03  
[30] US (16/919.448) 2020-07-02

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[11] **3,087,190**  
[13] C

[51] **Int.Cl. A24F 47/00 (2020.01) H04W 4/80 (2018.01)**  
[25] EN  
[54] **DATA CAPTURE ACROSS DEVICES**  
[54] **CAPTURE DE DONNEES ENTRE DISPOSITIFS**  
[72] MOLONEY, PATRICK, GB  
[72] KERSEY, ROBERT, GB  
[72] BAKER, DARRYL, GB  
[73] NICOVENTURES TRADING LIMITED, GB  
[85] 2020-06-26  
[86] 2018-12-21 (PCT/EP2018/086791)  
[87] (WO2019/129751)  
[30] GB (1722241.5) 2017-12-29

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[11] **3,089,385**  
[13] C

[51] **Int.Cl. E04B 1/26 (2006.01) E04C 3/00 (2006.01) F16B 15/00 (2006.01)**  
[25] EN  
[54] **HINGED CONNECTOR**  
[54] **CONNECTEUR ARTICULE**  
[72] BENTON, JAMES M., US  
[72] HOLLAND, RACHEL MARIE, US  
[72] EVANS, THOMAS G., US  
[72] STAUFFER, TIMOTHY M., US  
[73] SIMPSON STRONG-TIE COMPANY INC., US  
[85] 2020-07-22  
[86] 2019-01-25 (PCT/US2019/015285)  
[87] (WO2019/148034)  
[30] US (62/622,727) 2018-01-26

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[13] C

[51] **Int.Cl. C07K 7/08 (2006.01) A61K 38/17 (2006.01) C07K 7/06 (2006.01) C07K 14/195 (2006.01) C07K 14/575 (2006.01) C12N 9/88 (2006.01)**

[25] EN

[54] **AGONISTS OF GUANYLATE CYCLASE USEFUL FOR THE TREATMENT OF GASTROINTESTINAL DISORDERS, INFLAMMATION, CANCER AND OTHER DISORDERS**

[54] **AGONISTES DE GUANYLASE CYCLASE UTILES POUR LE TRAITEMENT DE TROUBLES GASTRO-INTESTINAUX, D'INFLAMMATION, DE CANCER ET D'AUTRES TROUBLES**

[72] SHAILUBHAI, KUNWAR, US  
[72] JACOB, GARY S., US  
[73] BAUSCH HEALTH IRELAND LIMITED, IE

[86] (3089569)  
[87] (3089569)  
[22] 2008-06-04  
[62] 2,688,161  
[30] US (60/933,194) 2007-06-04

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[11] **3,091,190**  
[13] C

[51] **Int.Cl. H04N 19/503 (2014.01) H04N 19/107 (2014.01) H04N 19/117 (2014.01) H04N 19/147 (2014.01) H04N 19/159 (2014.01) H04N 19/176 (2014.01) H04N 19/46 (2014.01) H04N 19/82 (2014.01) H04N 19/85 (2014.01)**

[25] EN

[54] **IMAGE RESHAPING IN VIDEO CODING USING RATE DISTORTION OPTIMIZATION**

[54] **REDEFINITION D'IMAGES DANS UN CODAGE VIDEO A L'AIDE D'UNE OPTIMISATION DE DISTORSION DU TAUX DE CODAGE**

[72] YIN, PENG, US  
[72] PU, FANGJUN, US  
[72] LU, TAORAN, US  
[72] CHEN, TAO, US  
[72] HUSAK, WALTER J., US  
[72] MCCARTHY, SEAN THOMAS, US  
[73] DOLBY LABORATORIES LICENSING CORPORATION, US

[85] 2020-08-12  
[86] 2019-02-13 (PCT/US2019/017891)  
[87] (WO2019/160986)  
[30] US (62/630,385) 2018-02-14  
[30] US (62/691,366) 2018-06-28  
[30] US (62/726,608) 2018-09-04  
[30] US (62/739,402) 2018-10-01  
[30] US (62/772,228) 2018-11-28  
[30] US (62/782,659) 2018-12-20  
[30] US (62/792,122) 2019-01-14

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[11] **3,092,808**  
[13] C

[51] **Int.Cl. G06F 17/18 (2006.01) A01D 76/00 (2006.01) G09B 29/00 (2006.01)**

[25] EN

[54] **COMPUTER-GENERATED ACCURATE YIELD MAP DATA USING EXPERT FILTERS AND SPATIAL OUTLIER DETECTION**

[54] **DONNEES DE CARTE DE RENDEMENT PRECISES GENEREES PAR ORDINATEUR UTILISANT DES FILTRES D'EXPERT ET UNE DETECTION DE VALEUR ABERRANTE SPATIALE**

[72] FARAH, MARIAN, US  
[73] CLIMATE LLC, US

[86] (3092808)  
[87] (3092808)  
[22] 2016-10-03  
[62] 3,001,328  
[30] US (14/883,517) 2015-10-14

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[11] **3,094,446**  
[13] C

[51] **Int.Cl. H04W 74/00 (2009.01)**

[25] EN

[54] **TRANSMISSION METHOD AND DEVICE, COMPUTER READABLE STORAGE MEDIUM**

[54] **PROCEDE ET DISPOSITIF DE TRANSMISSION, ET SUPPORT DE STOCKAGE LISIBLE PAR ORDINATEUR**

[72] LIU, KUN, CN  
[72] DAI, BO, CN  
[72] FANG, HUIYING, CN  
[72] YANG, WEIWEI, CN  
[73] ZTE CORPORATION, CN

[85] 2020-09-18  
[86] 2019-04-03 (PCT/CN2019/081333)  
[87] (WO2019/192541)  
[30] CN (201810300467.6) 2018-04-04

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[11] **3,094,740**  
[13] C

[51] **Int.Cl. G06N 10/60 (2022.01) G06N 10/70 (2022.01)**

[25] EN

[54] **LOW OVERHEAD QUANTUM COMPUTATION USING LATTICE SURGERY**

[54] **CALCUL QUANTIQUE A FAIBLE SURDEBIT A L'AIDE D'UNE CHIRURGIE DE RESEAU**

[72] GIDNEY, CRAIG, US  
[72] FOWLER, AUSTIN GREIG, US  
[73] GOOGLE LLC, US

[85] 2020-09-21  
[86] 2019-08-08 (PCT/US2019/045713)  
[87] (WO2020/033692)  
[30] US (62/716,212) 2018-08-08

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[11] **3,096,156**  
[13] C

[51] **Int.Cl. A61K 31/496 (2006.01) A61P 35/02 (2006.01)**  
[25] EN  
[54] **USE OF INHIBITORS OF BCR-ABL MUTANTS FOR THE TREATMENT OF CANCER**  
[54] **UTILISATION D'INHIBITEURS DE MUTANTS DU GENE BCR-ABL POUR LE TRAITEMENT DU CANCER**  
[72] ZHAI, YIFAN, CN  
[72] CHEN, ZI, CN  
[72] JIANG, QIAN, CN  
[72] HUANG, XIAOJUN, CN  
[72] LIU, WEI, CN  
[72] YANG, DAJUN, CN  
[73] ASCENTAGE PHARMA (SUZHOU) CO., LTD., CN  
[73] ASCENTAGE PHARMA GROUP CORP LIMITED, CN  
[73] GUANGZHOU HEALTHQUEST PHARMA CO., LTD., CN  
[85] 2020-10-05  
[86] 2019-12-02 (PCT/CN2019/122384)  
[87] (WO2020/114348)  
[30] CN (PCT/CN2018/119018) 2018-12-03  
[30] CN (201911105704.4) 2019-11-13

[11] **3,097,945**  
[13] C

[51] **Int.Cl. A01C 7/02 (2006.01) A01C 14/00 (2006.01)**  
[25] EN  
[54] **PLANTING TOOL**  
[54] **OUTIL POUR PLANTER**  
[72] POUTIAINEN, VESA, FI  
[73] FISKARS FINLAND OY AB, FI  
[86] (3097945)  
[87] (3097945)  
[22] 2020-11-03  
[30] FI (20195945) 2019-11-04

[11] **3,098,347**  
[13] C

[51] **Int.Cl. G06F 17/00 (2019.01) G06F 7/58 (2006.01) G06Q 50/34 (2012.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR PREDICTING ASPECTS OF AN UNKNOWN EVENT**  
[54] **SYSTEMES ET METHODES DE PREDICTION D'ASPECTS D'UN EVENEMENT INCONNU**  
[72] PILLAY, RODNEY, ZA  
[72] JUNGBAHADUR, SIDESH, ZA  
[73] GAMES GLOBAL OPERATIONS LIMITED, IM  
[86] (3098347)  
[87] (3098347)  
[22] 2020-11-06  
[30] GB (1916286.6) 2019-11-08

[11] **3,098,938**  
[13] C

[51] **Int.Cl. C12N 5/077 (2010.01) A61K 48/00 (2006.01) A61P 43/00 (2006.01)**  
[25] EN  
[54] **PREPARATION METHOD FOR REJUVENATED REGENERATIVE FIBROBLAST AND APPLICATION THEREOF**  
[54] **PROCEDE DE PREPARATION DE FIBROBLASTE REGENERATEUR REGENERE ET SON APPLICATION**  
[72] HU, MIN, CN  
[72] LI, YANJIAO, CN  
[72] HU, JUNYUAN, CN  
[73] SHENZHEN ALPHA BIOPHARMACEUTICAL CO. LTD., CN  
[85] 2020-10-30  
[86] 2019-05-01 (PCT/CN2019/085401)  
[87] (WO2019/210870)  
[30] CN (201810407290.X) 2018-05-01

[11] **3,100,530**  
[13] C

[51] **Int.Cl. B65F 3/04 (2006.01)**  
[25] EN  
[54] **GRABBER**  
[54] **PREHENSEUR**  
[72] PRICE, THOMAS L., US  
[72] DOLL, ROBERT H., US  
[72] NEPLOTRNIK, EUGENE, US  
[72] RICE, DAVID, US  
[73] THE HEIL CO., US  
[86] (3100530)  
[87] (3100530)  
[22] 2013-04-15  
[62] 2,812,544  
[30] US (61/640,129) 2012-04-30  
[30] US (13/799,423) 2013-03-13

[11] **3,100,558**  
[13] C

[51] **Int.Cl. A61K 8/41 (2006.01) A61K 8/34 (2006.01) A61K 8/35 (2006.01) A61K 8/36 (2006.01) A61K 8/368 (2006.01) A61K 8/37 (2006.01) A61K 8/40 (2006.01) A61K 8/43 (2006.01) A61K 8/44 (2006.01) A61Q 19/00 (2006.01)**  
[25] EN  
[54] **COSMETIC PRESERVATIVE SYSTEM COMPRISING EDTA OR DERIVATIVES THEREOF**  
[54] **SYSTEME DE PRESERVATION COSMETIQUE COMPRENANT DE L'ACIDE ETHYLENEDIAMINETETRACETI QUE OU DES DERIVES CONNEXES**  
[72] TOMLINSON, PAUL JAMES, GB  
[72] JOHNSON, MARK, GB  
[72] HICKS, JAKE THOMAS, GB  
[73] THE BOOTS COMPANY PLC, GB  
[85] 2020-11-17  
[86] 2019-05-30 (PCT/EP2019/025161)  
[87] (WO2019/228669)  
[30] EP (18020241.8) 2018-05-30

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[11] **3,101,282**  
[13] C

[51] **Int.Cl. E04F 15/02 (2006.01) E04C 2/40 (2006.01)**  
[25] EN  
[54] **FLOOR PANEL**  
[54] **PANNEAU DE PLANCHER**  
[72] PERRA, ANTONIO GIUSEPPE, NL  
[72] ZWEED, SANDER GORDON, NL  
[73] I4F LICENSING NV, BE  
[86] (3101282)  
[87] (3101282)  
[22] 2010-06-14  
[62] 2,965,644  
[30] NL (2003019) 2009-06-12  
[30] WO (PCT/NL2009/050540) 2009-09-09

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[11] **3,101,768**  
[13] C

[51] **Int.Cl. C07D 249/06 (2006.01) A61K 31/4192 (2006.01) A61P 31/04 (2006.01) A61P 35/00 (2006.01)**  
[25] EN  
[54] **SULFAMATE DERIVATIVES OF 4-(1-PHENYL-1H-[1,2,3]TRIAZOL-4-YL)-PHENOL, DERIVATIVES OF 4-(1-PHENYL-1H-[1,2,3]TRIAZOL-4-YL)-PHENOL, THEIR MEDICAL USE AND THE METHOD OF OBTAINING 4-(1-PHENYL-1H-[1,2,3]TRIAZOL-4-YL)-PHENYL SULFAMATE DERIVATIVES**  
[54] **DERIVES DE SULFAMATE DE 4-(1-PHENYL-1H-[1,2,3]TRIAZOL-4-YL)-PHENOL, DERIVES DE 4-(1-PHENYL-1H-[1,2,3]TRIAZOL-4-YL)-PHENOL, LEUR UTILISATION MEDICALE ET PROCEDE D'OBTENTION DE DERIVES DE SULFAMATE DE 4-(1-PHENYL-1H-[1,2,3]TRIAZOL-4-YL)-PHENYL**  
[72] DEMKOWICZ, SEBASTIAN, PL  
[72] DASKO, MATEUSZ, PL  
[72] RACHON, JANUSZ, PL  
[73] POLITECHNIKA GDANSKA, PL  
[85] 2020-11-25  
[86] 2018-08-20 (PCT/PL2018/000080)  
[87] (WO2019/245393)  
[30] PL (P.425970) 2018-06-18

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[11] **3,102,290**  
[13] C

[51] **Int.Cl. G06N 10/20 (2022.01) G06N 10/40 (2022.01)**  
[25] EN  
[54] **PREPARING SUPERPOSITIONS OF COMPUTATIONAL BASIS STATES ON A QUANTUM COMPUTER**  
[54] **PREPARATION DE SUPERPOSITIONS D'ETATS DE BASE DE CALCUL SUR UN ORDINATEUR QUANTIQUE**  
[72] JIANG, ZHANG, US  
[72] BABBUSH, RYAN, US  
[73] GOOGLE LLC, US  
[85] 2020-12-01  
[86] 2019-07-03 (PCT/US2019/040518)  
[87] (WO2020/010208)  
[30] US (62/694,850) 2018-07-06

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[11] **3,103,261**  
[13] C

[51] **Int.Cl. A24F 40/40 (2020.01)**  
[25] EN  
[54] **HEATING CUP**  
[54] **TASSE CHAUFFANTE**  
[72] LIU, TUANFANG, CN  
[73] SHENZHEN EIGATE TECHNOLOGY CO., LTD., CN  
[86] (3103261)  
[87] (3103261)  
[22] 2020-12-17  
[30] CN (202011151189.6) 2020-10-25  
[30] CN (202022389613.2) 2020-10-25

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[11] **3,103,609**  
[13] C

[51] **Int.Cl. A47K 10/48 (2006.01) A47K 1/04 (2006.01) E03C 1/05 (2006.01) E03C 1/186 (2019.01)**  
[25] EN  
[54] **INTEGRATED FAUCET AND DRYER WITH RECIRCULATING FLOW**  
[54] **ROBINET INTEGRE ET SECHERIE A FLUX DE RECIRCULATION**  
[72] GALLOB, RANDALL, US  
[72] ALLEN, CHARLES S., US  
[72] MAK, JASON, US  
[73] STONE AND STEEL SYSTEMS, LLC, US  
[85] 2020-12-11  
[86] 2019-06-11 (PCT/US2019/036579)  
[87] (WO2019/241270)  
[30] US (62/683,570) 2018-06-11

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[11] **3,104,491**  
[13] C

[51] **Int.Cl. A24F 40/40 (2020.01)**  
[25] EN  
[54] **ATOMIZER**  
[54] **PULVERISATEUR**  
[72] LIU, TUANFANG, CN  
[73] SHENZHEN EIGATE TECHNOLOGY CO., LTD., CN  
[86] (3104491)  
[87] (3104491)  
[22] 2020-12-24  
[30] CN (202010864579.1) 2020-08-25  
[30] CN (202021794114.5) 2020-08-25

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[11] **3,104,770**  
[13] C

[51] **Int.Cl. B65D 17/28 (2006.01)**  
[25] EN  
[54] **RE-SEALABLE CAN LID**  
[54] **COUVERCLE DE CANNETTE REFERMABLE**  
[72] BRATSCH, CHRISTIAN, AT  
[73] XOLUTION GMBH, DE  
[85] 2020-12-22  
[86] 2019-06-26 (PCT/EP2019/067020)  
[87] (WO2020/007683)  
[30] EP (18181708.1) 2018-07-04

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[11] **3,105,330**  
[13] C

[51] **Int.Cl. H04N 19/52 (2014.01) H04N 19/70 (2014.01)**  
[25] EN  
[54] **INTERACTION BETWEEN LUT AND AMVP**  
[54] **INTERACTION ENTRE TABLE DE CONVERSION ET AMVP**  
[72] ZHANG, LI, US  
[72] ZHANG, KAI, US  
[72] LIU, HONGBIN, CN  
[72] WANG, YUE, CN  
[73] BEIJING BYTEDANCE NETWORK TECHNOLOGY CO., LTD., CN  
[73] BYTEDANCE INC., US  
[85] 2020-12-29  
[86] 2019-07-01 (PCT/IB2019/055595)  
[87] (WO2020/003284)  
[30] CN (PCT/CN2018/093663) 2018-06-29  
[30] CN (PCT/CN2018/105193) 2018-09-12  
[30] CN (PCT/CN2019/072058) 2019-01-16

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[11] **3,106,685**  
[13] C

[51] **Int.Cl. B25C 1/00 (2006.01) B25C 1/04 (2006.01) B25C 1/06 (2006.01) B25C 5/13 (2006.01) B25C 5/15 (2006.01) B25F 5/00 (2006.01)**

[25] EN

[54] **FORCED AIR COOLING FROM PISTON MOVEMENTS OF NAILER TOOL**

[54] **REFROIDISSEMENT PAR AIR FORCE A PARTIR DE MOUVEMENTS DE PISTON D'UN OUTIL DE CLOUAGE**

[72] CARRIER, ALEXANDER L., US

[72] KLEIN, CHRISTOPHER D., US

[73] KYOCERA SENCO INDUSTRIAL TOOLS, INC., US

[85] 2021-01-15

[86] 2019-08-20 (PCT/US2019/047289)

[87] (WO2020/046650)

[30] US (62/723,859) 2018-08-28

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[11] **3,108,021**  
[13] C

[51] **Int.Cl. B65D 47/08 (2006.01) A47G 19/22 (2006.01) B65D 85/72 (2006.01)**

[25] EN

[54] **LID WITH DISPENSING FEATURE**

[54] **COUVERCLE DOTE D'UN ELEMENT DE DISTRIBUTION**

[72] BAIRD, KYLE, US

[73] GRAPHIC PACKAGING INTERNATIONAL, LLC, US

[85] 2021-01-27

[86] 2019-08-22 (PCT/US2019/047630)

[87] (WO2020/041552)

[30] US (62/721,569) 2018-08-22

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[11] **3,108,095**  
[13] C

[51] **Int.Cl. H04B 10/272 (2013.01) H04B 10/61 (2013.01) H04B 10/69 (2013.01) H04J 14/02 (2006.01)**

[25] EN

[54] **SYSTEM AND METHODS FOR COHERENT BURST RECEPTION**

[54] **SYSTEME ET PROCEDES DE RECEPTION DE RAFALES COHERENTE**

[72] ZHANG, JUNWEN, US

[72] CAMPOS, LUIS ALBERTO, US

[72] JIA, ZHENSHENG, US

[73] CABLE TELEVISION LABORATORIES, INC., US

[85] 2021-01-28

[86] 2019-08-02 (PCT/US2019/044984)

[87] (WO2020/028859)

[30] US (62/713,691) 2018-08-02

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[11] **3,108,881**  
[13] C

[51] **Int.Cl. C09K 3/14 (2006.01)**

[25] EN

[54] **PARTICULATE MATERIALS AND METHODS OF FORMING SAME**

[54] **MATERIAUX PARTICULAIRES ET LEURS PROCEDES DE FORMATION**

[72] VUJCIC, STEFAN, US

[72] BAUER, RALPH, CA

[73] SAINT-GOBAIN CERAMICS & PLASTICS, INC., US

[85] 2021-02-05

[86] 2019-08-08 (PCT/US2019/045779)

[87] (WO2020/033746)

[30] US (62/717,441) 2018-08-10

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[11] **3,110,164**  
[13] C

[51] **Int.Cl. G01V 8/24 (2006.01) E21B 47/12 (2012.01) G02B 6/04 (2006.01)**

[25] EN

[54] **TIME DIVISION MULTIPLEXING OF DISTRIBUTED DOWNHOLE SENSING SYSTEMS**

[54] **MULTIPLEXAGE PAR REPARTITION DANS LE TEMPS DE SYSTEMES DE DETECTION DISTRIBUES DE FOND DE TROU**

[72] BARRY, ALEXANDER MICHAEL, US

[72] JOHNSTON, WILLIAM ALBERT, US

[72] MITCHELL, IAN, US

[73] BAKER HUGHES HOLDINGS LLC, US

[85] 2021-02-19

[86] 2019-08-14 (PCT/US2019/046486)

[87] (WO2020/041064)

[30] US (16/106,307) 2018-08-21

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[11] **3,110,825**  
[13] C

[51] **Int.Cl. E05B 49/00 (2006.01) H04M 9/00 (2006.01)**

[25] EN

[54] **ELECTRONIC LOCK CONTROL APPARATUS, ELECTRONIC LOCK CONTROL SYSTEM, ELECTRONIC LOCK CONTROL METHOD, AND PROGRAM**

[54] **APPAREIL, SYSTEME ET METHODE DE COMMANDE DE VERROU ELECTRONIQUE, ET PROGRAMME**

[72] TAMURA, KUNIHICO, JP

[73] NEC PLATFORMS, LTD., JP

[85] 2021-02-25

[86] 2019-08-13 (PCT/JP2019/031812)

[87] (WO2020/045075)

[30] JP (2018-161754) 2018-08-30

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[11] **3,111,079**  
[13] C

[51] **Int.Cl. B27F 7/38 (2006.01)**

[25] EN

[54] **HIGH LOAD LIFTER FOR AUTOMATED STAPLER**

[54] **DISPOSITIF DE LEVAGE DE CHARGE ELEVEE POUR AGRAFEUSE AUTOMATISEE**

[72] STOOF, JOHAN JOHANNES, NL

[72] GROUVE, JOHANNES ANTONIUS RUDOLF, NL

[73] KYOCERA SENCO INDUSTRIAL TOOLS, INC., US

[85] 2021-03-01

[86] 2019-09-13 (PCT/US2019/050933)

[87] (WO2020/060847)

[30] US (62/733,124) 2018-09-19

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[11] **3,114,181**  
[13] C

[51] **Int.Cl. C08J 5/18 (2006.01) B29C 55/00 (2006.01) B29D 7/01 (2006.01) B32B 27/08 (2006.01) B32B 27/32 (2006.01) B65D 65/40 (2006.01)**

[25] EN

[54] **STRUCTURED DENSE FLUOROPOLYMER FILMS AND METHODS OF MAKING SAME**

[54] **FILMS FLUOROPOLYMERES DENSES STRUCTURES ET LEURS PROCEDES DE FABRICATION**

[72] KENNEDY, MICHAEL E., US

[72] RAN, SHAOFENG, US

[73] W. L. GORE & ASSOCIATES, INC., US

[85] 2021-03-24

[86] 2018-10-05 (PCT/US2018/054559)

[87] (WO2020/072072)

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[11] **3,116,231**  
[13] C

[51] **Int.Cl. H02J 13/00 (2006.01) H02J 3/00 (2006.01)**

[25] EN

[54] **SYSTEM FOR HOUSEHOLD ELECTRICAL MANAGEMENT AND CHARGING OF ELECTRIC VEHICLES AND/OR OTHER HIGH LOAD APPLIANCES**

[54] **SYSTEME POUR LA GESTION ELECTRIQUE DU DOMICILE ET LE CHARGEMENT DE VEHICULES ELECTRIQUES ET/OU D'AUTRES APPAREILS A CHARGE ELEVEE**

[72] WATERMAN, MICHAEL, CA

[73] LOADSHARE TECHNOLOGIES INC., CA

[86] (3116231)

[87] (3116231)

[22] 2021-04-22

[30] US (63/014,120) 2020-04-22

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[11] **3,116,795**  
[13] C

[51] **Int.Cl. F02M 26/08 (2016.01)**

[25] EN

[54] **EXHAUST GAS RECIRCULATION SYSTEM AND ENGINE**

[54] **SYSTEME ET PROCEDE DE RECIRCULATION DES GAZ D'ECHAPPEMENT**

[72] ZHAN, QIANG, CN

[72] CHU, GUOLIANG, CN

[73] WEICHAI POWER CO., LTD., CN

[85] 2021-04-16

[86] 2018-12-28 (PCT/CN2018/124697)

[87] (WO2020/133162)

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[11] **3,117,558**  
[13] C

[51] **Int.Cl. F16L 55/00 (2006.01) G01M 13/00 (2019.01) F16L 37/088 (2006.01)**

[25] EN

[54] **CONNECTION VERIFIER**

[54] **VERIFICATEUR DE RACCORDEMENT**

[72] HALL, THOMAS EDWIN II, US

[72] CORRA, CRAIG ANDREW, US

[72] ADAMS, JOSEPH THOMAS, US

[73] OETIKER NY, INC., US

[85] 2021-04-22

[86] 2019-10-31 (PCT/US2019/059162)

[87] (WO2020/092768)

[30] US (62/753,969) 2018-11-01

[30] US (62/883,323) 2019-08-06

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[11] **3,118,165**  
[13] C

[51] **Int.Cl. B67D 7/04 (2010.01) B67D 7/54 (2010.01)**

[25] EN

[54] **DEVICE FOR DISCHARGING AND RETURNING FLUIDS**

[54] **DISPOSITIF DE DISTRIBUTION ET DE RETOUR DE FLUIDES**

[72] SCHULZ-HILDEBRANDT, LASSE, DE

[72] FEDDE, MATTHIAS, DE

[73] ELAFLEX HIBY GMBH & CO. KG, DE

[85] 2021-04-29

[86] 2019-10-28 (PCT/EP2019/079382)

[87] (WO2020/089161)

[30] EP (18203262.3) 2018-10-30

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[11] **3,119,416**  
[13] C

[51] **Int.Cl. G06F 40/35 (2020.01) G06F 16/903 (2019.01) G06F 40/279 (2020.01) G06F 40/30 (2020.01) G06N 3/02 (2006.01)**

[25] EN

[54] **COMBINING STATISTICAL METHODS WITH A KNOWLEDGE GRAPH**

[54] **COMBINAISON DE METHODES STATISTIQUES ET D'UN GRAPHE DE CONNAISSANCES**

[72] COULOMBE, GREGORY KENNETH, US

[72] MEIKE, ROGER C., US

[72] OSMON, CYNTHIA J., US

[72] KUMAR, SRICHARAN KALLUR PALLI, US

[72] MALYNIN, PAVLO, US

[73] INTUIT INC., US

[85] 2021-05-21

[86] 2020-06-08 (PCT/US2020/036595)

[87] (WO2021/107982)

[30] US (16/693,593) 2019-11-25

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December 5, 2023**

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[11] **3,119,829**  
[13] C

[51] **Int.Cl. G06F 21/32 (2013.01) H04W 12/069 (2021.01) H04W 12/72 (2021.01) H04L 9/30 (2006.01)**

[25] EN

[54] **SYSTEM AND METHOD FOR AUTHORIZING ACCESS TO ACCESS-CONTROLLED ENVIRONMENTS**

[54] **SYSTEME ET PROCEDE CONCUS POUR AUTORISER L'ACCES A DES ENVIRONNEMENTS A ACCES CONTROLE**

[72] HOYOS, HECTOR, US

[72] BRAVERMAN, JASON, US

[72] XIAO, GEOFFREY, US

[72] STREIT, SCOTT, US

[72] MATHER, JONATHAN FRANCIS, US

[73] VERIDIUM IP LIMITED, GB

[86] (3119829)

[87] (3119829)

[22] 2014-05-13

[62] 2,909,788

[30] US (61/822,746) 2013-05-13

[30] US (61/842,757) 2013-07-03

[30] US (61/842,756) 2013-07-03

[30] US (61/842,739) 2013-07-03

[30] US (61/842,800) 2013-07-03

[30] US (61/920,985) 2013-12-26

[30] US (61/921,004) 2013-12-26

[30] US (61/922,438) 2013-12-31

[30] US (61/924,092) 2014-01-06

[30] US (61/924,097) 2014-01-06

[30] US (14/201,499) 2014-03-07

[30] US (14/201,438) 2014-03-07

[30] US (14/201,462) 2014-03-07

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[11] **3,121,680**  
[13] C

[51] **Int.Cl. A61N 1/36 (2006.01) A61N 1/372 (2006.01)**

[25] EN

[54] **CONTROL SYSTEM FOR AN IMPLANTABLE STIMULATING DEVICE FOR STIMULATING A VAGUS NERVE**

[54] **SYSTEME DE CONTROLE POUR UN DISPOSITIF DE STIMULATION IMPLANTABLE POUR STIMULER UN NERF VAGUE**

[72] DOGUET, PASCAL, BE

[72] DAUTREBANDE, MARIE, BE

[72] BOTQUIN, YOHAN, BE

[72] THIEBAUT, GREGORY, BE

[73] SYNERGIA MEDICAL, BE

[85] 2021-06-01

[86] 2018-12-18 (PCT/EP2018/085485)

[87] (WO2020/125948)

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[11] **3,122,212**  
[13] C

[51] **Int.Cl. B60L 58/26 (2019.01) B60L 50/64 (2019.01) B60K 1/04 (2019.01) F28F 7/00 (2006.01) H02J 7/00 (2006.01) H05K 7/20 (2006.01)**

[25] EN

[54] **COOLING SYSTEM FOR AN ENERGY STORAGE SYSTEM**

[54] **SYSTEME DE REFROIDISSEMENT POUR SYSTEME DE STOCKAGE D'ENERGIE**

[72] BLETSIS, RICHARD, US

[72] FORD, DEAN M., US

[72] NAEGELI, MARKUS, US

[72] REYBURN, STEVEN T., US

[72] YOUNGS, DANIEL J., US

[72] BIEHL, KURT, US

[72] BASS, EDWARD, US

[72] SCHNEIDER, ERIC D., US

[72] BAILEY, FELICE E., US

[72] WENDLING, JERRY, US

[73] ALLISON TRANSMISSION, INC., US

[86] (3122212)

[87] (3122212)

[22] 2013-06-13

[62] 3,044,212

[30] US (61/659,215) 2012-06-13

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[11] **3,122,224**  
[13] C

[51] **Int.Cl. A61L 2/28 (2006.01)**

[25] EN

[54] **STERILIZATION CONTAINER CAPABLE OF PROVIDING AN INDICATION REGARDING WHETHER OR NOT SURGICAL INSTRUMENTS STERILIZED IN THE CONTAINER WERE PROPERLY STERILIZED**

[54] **RECIPIENT DE STERILISATION APTE A FOURNIR UNE INDICATION CONCERNANT LA STERILISATION CORRECTE DES INSTRUMENTS CHIRURGICAUX STERILISES DANS LE RECIPIENT**

[72] HENNIGES, BRUCE, US

[72] CHILDERS, ROBERT W., US

[72] CHMELAR, ERIK VACLAC, US

[72] DUDYCHA, ADAM, US

[72] MILLER, MICHAEL, US

[72] MOAIERY, ALI, US

[72] PURRENHAGE, BENJAMIN JOHN, US

[73] STRYKER CORPORATION, US

[86] (3122224)

[87] (3122224)

[22] 2014-03-12

[62] 2,905,880

[30] US (61/779,956) 2013-03-13

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[11] **3,122,449**  
[13] C

[51] **Int.Cl. A61B 17/00 (2006.01) A61B 90/00 (2016.01) A61B 17/02 (2006.01) A61B 17/94 (2006.01) A61B 50/30 (2016.01)**

[25] EN

[54] **MAGNARETRACTOR SYSTEM AND METHOD**

[54] **SYSTEME ET PROCEDE DE MAGNARETRACTION**

[72] DEUTCH, TODD, US

[73] ATTRACTIVE SURGICAL, LLC, US

[86] (3122449)

[87] (3122449)

[22] 2008-11-26

[62] 2,942,567

[30] US (60/996,575) 2007-11-26



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[11] **3,122,923**  
[13] C

[51] **Int.Cl. G01S 7/52 (2006.01) G01S 15/89 (2006.01)**  
[25] EN  
[54] **METHOD AND SYSTEM FOR ESTIMATING AN ULTRASOUND ATTENUATION PARAMETER**  
[54] **METHODE ET SYSTEME POUR ESTIMER UN PARAMETRE D'ATTENUATION DE L'ULTRASON**  
[72] FRASCHINI, CHRISTOPHE, FR  
[73] SUPERSONIC IMAGINE, FR  
[86] (3122923)  
[87] (3122923)  
[22] 2021-06-22  
[30] EP (20315348.1) 2020-07-10

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[11] **3,123,099**  
[13] C

[51] **Int.Cl. A61B 5/097 (2006.01) A61B 5/08 (2006.01) G01N 1/22 (2006.01) G01N 33/497 (2006.01)**  
[25] EN  
[54] **DEVICES, METHODS, AND SYSTEMS FOR COLLECTION OF VOLATILE ORGANIC COMPOUNDS**  
[54] **DISPOSITIFS, PROCÉDES ET SYSTÈMES POUR LA COLLECTE DE COMPOSÉS ORGANIQUES VOLATILS**  
[72] WHEELER, CHRIS, US  
[72] TODD, CHRIS, US  
[72] SCHUSTER, JEFFREY A., US  
[72] LARSSON, KARL-MAGNUS, US  
[73] DIAGNOSE EARLY, INC., US  
[85] 2021-06-10  
[86] 2019-12-13 (PCT/US2019/066143)  
[87] (WO2020/123897)  
[30] US (62/779,256) 2018-12-13  
[30] US (62/847,181) 2019-05-13

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[11] **3,123,331**  
[13] C

[51] **Int.Cl. C07K 7/06 (2006.01) C07K 1/06 (2006.01) C07K 14/47 (2006.01)**  
[25] EN  
[54] **LINEAR SOLUTION PHASE ROUTES FOR WNT HEXAPEPTIDES**  
[54] **VOIES EN PHASE DE SOLUTION LINEAIRE POUR HEXAPEPTIDES WNT**  
[72] VEERABHADRA PRATAP, TADIKONDA, IN  
[72] RAGHAVENDRA RAO, KAMARAJU, IN  
[72] HENRIKSEN, DENNIS, SE  
[73] WNTRESEARCH AB, SE  
[85] 2021-06-14  
[86] 2019-12-02 (PCT/EP2019/083309)  
[87] (WO2020/120198)  
[30] EP (18212658.1) 2018-12-14

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[11] **3,123,444**  
[13] C

[51] **Int.Cl. A24F 40/40 (2020.01) A24F 40/10 (2020.01)**  
[25] EN  
[54] **ATOMIZER COMPRISING BOWL-SHAPED CERAMIC CORE**  
[54] **PULVERISATEUR COMPRENANT UN NOYAU CÉRAMIQUE EN FORME DE BOL**  
[72] LIU, TUANFANG, CN  
[73] SHENZHEN EIGATE TECHNOLOGY CO., LTD., CN  
[86] (3123444)  
[87] (3123444)  
[22] 2021-06-29  
[30] CN (202011419774.X) 2020-12-04  
[30] CN (202022909553.2) 2020-12-04

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[11] **3,124,358**  
[13] C

[51] **Int.Cl. G06F 40/279 (2020.01) G06N 3/02 (2006.01)**  
[25] EN  
[54] **METHOD AND SYSTEM FOR IDENTIFYING CITATIONS WITHIN REGULATORY CONTENT**  
[54] **METHODE ET SYSTEME POUR RELEVÉ DES CITATIONS DANS DU CONTENU RÉGLEMENTAIRE**  
[72] RAMEZANI, MAHDI, CA  
[72] KRAG, ELIJAH SOLOMON, CA  
[72] TAHMASBI, AMIR ABBAS, CA  
[72] MOORE, MARGERIE, CA  
[73] MOORE & GASPERECZ GLOBAL INC., CA  
[86] (3124358)  
[87] (3124358)  
[22] 2021-07-08  
[30] US (17/017,406) 2020-09-10

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[11] **3,124,363**  
[13] C

[51] **Int.Cl. A46B 17/00 (2006.01) A46B 15/00 (2006.01) A47G 29/08 (2006.01) A47K 11/10 (2006.01) F16M 13/00 (2006.01)**  
[25] EN  
[54] **TOILET BRUSH HOLDER**  
[54] **PORTE-BROSSE À TOILETTE**  
[72] WANG, YONGDONG, CN  
[73] NINGBO SHIJIA CLEANING TOOLS CO., LTD, CN  
[85] 2021-07-13  
[86] 2021-02-10 (PCT/CN2021/076517)  
[87] (WO2022/016857)  
[30] CN (2020214833524) 2020-07-24

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[11] **3,125,407**  
[13] C

[51] **Int.Cl. G06Q 40/02 (2023.01) G06N 20/00 (2019.01) G06Q 30/0283 (2023.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR AUTOMATING PRICING DESK OPERATIONS**

[54] **SYSTEMES ET METHODES POUR L'AUTOMATISATION DE L'ETABLISSEMENT DES PRIX D'OPERATIONS DE PUPITRE**

[72] CHARTON, ERIC, CA  
[72] L' HOUR, YANN-EDERN, CA  
[72] MALETTE, MARIE-EVE, CA  
[72] RIZKALLAH-LEROUX, JULIEN, CA  
[72] DESCOTEAUX, MICHEL, CA  
[73] BANQUE NATIONALE DU CANADA, CA

[86] (3125407)  
[87] (3125407)  
[22] 2021-07-21  
[30] US (63/055,083) 2020-07-22

[11] **3,125,977**  
[13] C

[51] **Int.Cl. A01N 63/27 (2020.01) A01N 37/24 (2006.01) A01N 37/34 (2006.01) A01N 43/50 (2006.01) A01N 43/54 (2006.01) A01N 43/653 (2006.01) A01P 3/00 (2006.01) A01P 21/00 (2006.01)**

[25] EN

[54] **COMPOSITIONS AND METHODS OF USE COMPRISING THE BIOCONTROL AGENT DEPOSITED AS NRRL NO. B-50897**

[54] **COMPOSITIONS ET METHODES D'UTILISATION RENFERMANT L'AGENT DE BIOCONTROLE DEPOSE COMME NRRL NO B-50897**

[72] JONES, JANICE C., US  
[72] KOZIEL, MICHAEL G., US  
[72] UKNES, SCOTT JOSEPH, US  
[72] SHEKITA, AMY ELIZABETH, US  
[72] HAMMER, PHILIP E., US  
[73] AGBIOME, INC., US

[86] (3125977)  
[87] (3125977)  
[22] 2015-01-29  
[62] 2,937,514  
[30] US (61/933,954) 2014-01-31  
[30] US (62/104,122) 2015-01-16

[11] **3,126,047**  
[13] C

[51] **Int.Cl. E02F 3/84 (2006.01) E02F 3/85 (2006.01) E02F 9/20 (2006.01)**

[25] EN

[54] **CONTROL SYSTEM AND CONTROL METHOD FOR WORK MACHINE**

[54] **SYSTEME DE COMMANDE ET PROCEDE DE COMMANDE POUR MACHINE DE TRAVAIL**

[72] HARADA, JUNJI, JP  
[73] KOMATSU LTD., JP

[85] 2021-07-07  
[86] 2020-02-17 (PCT/JP2020/006038)  
[87] (WO2020/171014)  
[30] JP (2019-027644) 2019-02-19

[11] **3,126,337**  
[13] C

[51] **Int.Cl. C07D 471/08 (2006.01) A61K 49/08 (2006.01) A61K 49/10 (2006.01) C07D 487/04 (2006.01) C07F 5/00 (2006.01)**

[25] FR

[54] **COMPLEX OF GADOLINIUM AND A CHELATING LIGAND DERIVED OF A DIASTEREOISOMERICALLY ENRICHED PCTA AND SYNTHESIS METHOD**

[54] **COMPLEXE DE GADOLINIUM ET D'UN LIGAND CHELATEUR DERIVE DE PCTA DIASTEREOISOMERIQUEMENT ENRICHI ET PROCEDE DE SYNTHESE**

[72] LE GRENEUR, SOIZIC, FR  
[72] CHENEDE, ALAIN, FR  
[72] CERF, MARTINE, FR  
[72] DECROU, STEPHANE, FR  
[72] FRANCOIS, BRUNO, FR  
[73] GUERBET, FR

[85] 2021-07-09  
[86] 2020-01-17 (PCT/EP2020/051142)  
[87] (WO2020/148431)  
[30] FR (1900433) 2019-01-17

[11] **3,126,507**  
[13] C

[51] **Int.Cl. H04N 21/643 (2011.01) H04N 21/234 (2011.01) H04L 69/22 (2022.01) H04L 69/323 (2022.01) H04L 69/324 (2022.01)**

[25] EN

[54] **DATA STRUCTURE FOR PHYSICAL LAYER ENCAPSULATION, DATA STRUCTURE GENERATING APPARATUS AND METHOD THEREOF**

[54] **STRUCTURE DE DONNEES POUR UNE ENCAPSULATION DE COUCHE PHYSIQUE, APPAREIL DE GENERATION DE STRUCTURE DE DONNEES ET PROCEDE ASSOCIE**

[72] MOURAD, ALAIN, GB  
[72] HWANG, SUNG-HEE, KR  
[72] ANSORREGUI, DANIEL, GB  
[72] MOUHOUCHE, BELKACEM, GB  
[72] LEE, HAK-JU, KR  
[73] SAMSUNG ELECTRONICS CO., LTD., KR

[86] (3126507)  
[87] (3126507)  
[22] 2014-06-24  
[62] 2,916,943  
[30] GB (1311443.4) 2013-06-27  
[30] KR (10-2013-0096128) 2013-08-13

[11] **3,126,726**  
[13] C

[51] **Int.Cl. B41J 2/14 (2006.01)**

[25] EN

[54] **FLUID EJECTION DEVICES INCLUDING ELECTRICAL INTERCONNECT ELEMENTS FOR FLUID EJECTION DIES**

[54] **DISPOSITIFS D'EJECTION DE FLUIDE COMPRENANT DES ELEMENTS D'INTERCONNEXION ELECTRIQUE POUR MATRICES D'EJECTION DE FLUIDE**

[72] FULLER, ANTHONY M., US  
[72] FORREST, DAREN L., US  
[72] CUMBIE, MICHAEL W., US  
[72] GROOM, MICHAEL, US  
[72] JENSSEN, CONRAD, US  
[73] HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., US

[85] 2021-07-09  
[86] 2019-02-06 (PCT/US2019/016857)  
[87] (WO2020/162928)

**Brevets canadiens délivrés  
5 décembre 2023**

[11] **3,127,100**  
[13] C

- [51] **Int.Cl. G06Q 50/10 (2012.01) G06N 20/00 (2019.01) G01M 5/00 (2006.01) G05B 23/02 (2006.01)**
- [25] EN
- [54] **ANOMALY DETECTION FOR PREDICTIVE MAINTENANCE AND DERIVING OUTCOMES AND WORKFLOWS BASED ON DATA QUALITY**
- [54] **DETECTION D'ANOMALIE POUR MAINTENANCE PREDICTIVE ET DEDUCTION DE RESULTATS ET DE FLUX DE TRAVAUX SUR LA BASE DE LA QUALITE DE DONNEES**
- [72] GATTU, JAGADISH, US
- [72] OHAD, NIMROD, US
- [73] WAYGATE TECHNOLOGIES USA, LP, US
- [85] 2021-07-16
- [86] 2020-01-23 (PCT/US2020/014713)
- [87] (WO2020/154461)
- [30] US (62/797,076) 2019-01-25

[11] **3,128,210**  
[13] C

- [25] EN
- [54] **PROXIMATE ROBOT OBJECT DETECTION AND AVOIDANCE**
- [54] **DETECTION ET EVITEMENT D'OBJET DE ROBOT PROCHE**
- [72] JOHNSON, MICHAEL CHARLES, US
- [72] JOHNSON, SEAN, US
- [72] JAQUEZ, LUIS, US
- [72] WELTY, BRUCE, US
- [73] LOCUS ROBOTICS CORP., US
- [85] 2021-07-28
- [86] 2020-01-31 (PCT/US2020/016069)
- [87] (WO2020/160387)
- [30] US (16/264,901) 2019-02-01

[11] **3,128,321**  
[13] C

- [51] **Int.Cl. A61K 31/198 (2006.01) A61P 25/04 (2006.01) A61P 25/14 (2006.01) A61P 25/24 (2006.01)**
- [25] EN
- [54] **DOSAGE FORMS AND THERAPEUTIC USES OF L-4-CHLOROKYNURENINE**
- [54] **FORMES GALENIQUES ET UTILISATIONS THERAPEUTIQUES DE L-4-CHLOROKYNURENINE**
- [72] SNODGRASS, H. RALPH, US
- [72] CATO, ALLEN E., US
- [72] HICKLIN, JACK S., US
- [73] VISTAGEN THERAPEUTICS, INC., US
- [86] (3128321)
- [87] (3128321)
- [22] 2014-01-22
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- [30] US (61/849,191) 2013-01-22

[11] **3,128,815**  
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- [25] EN
- [54] **VEHICLE BRAKE CONTROL SYSTEM AND METHOD**
- [54] **SYSTEME ET METHODE DE COMMANDE DE FREIN DE VEHICULE**
- [72] POTTER, WILLIAM JOHN, US
- [72] GAUGHAN, EDWARD W., US
- [73] WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION, US
- [86] (3128815)
- [87] (3128815)
- [22] 2021-08-24
- [30] US (63/070,898) 2020-08-27
- [30] US (17/397,766) 2021-08-09

[11] **3,129,091**  
[13] C

- [51] **Int.Cl. F24F 1/0358 (2019.01) F24F 1/029 (2019.01) F24F 13/22 (2006.01)**
- [25] EN
- [54] **DEHUMIDIFIER**
- [54] **DESHUMIDIFICATEUR**
- [72] LIU, FASHEN, CN
- [72] CAI, ZHICAI, CN
- [72] ZHANG, KANGWEN, CN
- [73] GD MIDEA AIR-CONDITIONING EQUIPMENT CO., LTD., CN
- [73] MIDEA GROUP CO., LTD., CN
- [85] 2021-08-26
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- [87] (WO2022/027810)
- [30] CN (202010786623.1) 2020-08-06
- [30] CN (202021623960.0) 2020-08-06

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- [51] **Int.Cl. F24F 1/029 (2019.01) F24F 1/0358 (2019.01)**
- [25] EN
- [54] **MOTOR SUPPORT AND DEHUMIDIFIER HAVING SAME**
- [54] **SUPPORT DE MOTEUR ET DESHUMIDIFICATEUR LE COMPORTANT**
- [72] SHEN, WENJUN, CN
- [72] XING, ZHIGANG, CN
- [72] LIU, YU, CN
- [72] LEI, ZHISHENG, CN
- [72] ZHANG, KANGWEN, CN
- [72] TANG, YUHANG, CN
- [72] DONG, PEILI, CN
- [72] YANG, CHENGLI, CN
- [73] GD MIDEA AIR-CONDITIONING EQUIPMENT CO., LTD., CN
- [85] 2021-08-27
- [86] 2020-12-21 (PCT/CN2020/137937)
- [87] (WO2022/021764)
- [30] CN (202021576813.2) 2020-07-31
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[54] **UNITARY DOUBLE STUD ASSEMBLY FOR SOUND DAMPING WALL**

[54] **ASSEMBLAGE DE POTEAUX JUMES UNITAIRES POUR UN MUR D'ATTENUATION SONORE**

[72] SESSLER, JON, US

[73] SESSLER, JON, US

[86] (3129697)

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[22] 2021-09-01

[30] US (63/076,241) 2020-09-09

[30] US (17/411,826) 2021-08-25

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[25] EN

[54] **GRIPPER TOOLS FOR OBJECT GRASPING AND MANIPULATION**

[54] **OUTILS DE PREHENSION POUR LA SAISIE ET LA MANIPULATION D'OBJETS**

[72] KNOFF, RYAN R., US

[72] LESSING, JOSHUA AARON, US

[72] CHRISOS, JASON A., US

[73] APPHARVEST TECHNOLOGY, INC., US

[85] 2021-08-11

[86] 2020-02-14 (PCT/US2020/018392)

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[25] EN

[54] **LED LIGHT STRING WITH SINGLE WIRE AND ILLUMINATION DEVICE**

[54] **BANDE LUMINEUSE A DEL MONOFILAIRE ET DISPOSITIF D'ILLUMINATION**

[72] SHAN, XIWAN, CN

[72] YANG, TUXIU, CN

[72] LI, QUNLIN, CN

[72] AI, YUNDONG, CN

[72] ZHANG, JIE, CN

[72] WU, JINGTIAN, CN

[72] HE, HUA, CN

[72] LIU, QIMING, CN

[72] CHEN, YUE, CN

[72] YAN, SU, CN

[73] ZHUHAI BOJAY ELECTRONICS CO., LTD., CN

[86] (3129995)

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[22] 2021-09-03

[30] CN (202110577412.1) 2021-05-26

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[25] EN

[54] **GAS TURBINE PLANT AND EXHAUST CARBON DIOXIDE RECOVERY METHOD THEREFOR**

[54] **INSTALLATION DE TURBINE A GAZ ET SON PROCEDE DE RECUPERATION DE DIOXYDE DE CARBONE D'ECHAPPEMENT**

[72] NAGAFUCHI, NAOYUKI, JP

[72] TSUTSUMI, ATSUSHI, JP

[72] KAMIJO, TAKASHI, JP

[72] SHIGETA, HIROAKI, JP

[73] MITSUBISHI HEAVY INDUSTRIES, LTD., JP

[85] 2021-08-24

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[25] EN

[54] **PD1 AND/OR LAG3 BINDERS**

[54] **LIANTS PD1 ET/OU LAG3**

[72] BOWMAN, EDWARD, US

[72] BEAUMONT, MARIBEL, US

[72] BUYSE, MARIE-ANGE, BE

[72] BOUTTON, CARLO, BE

[72] DOMBRECHT, BRUNO, BE

[72] VLERICK, DAVID, BE

[72] KASTELEIN, ROBERT A., US

[73] MERCK SHARP & DOHME LLC, US

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[54] **AEROSOL GENERATING DEVICE**

[54] **DISPOSITIF DE GENERATION D'AEROSOL**

[72] BLANDINO, THOMAS PAUL, US

[72] SAYED, ASHLEY JOHN, GB

[72] WARREN, LUKE JAMES, GB

[73] NICOVENTURES TRADING LIMITED, GB

[85] 2021-09-07

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[54] **POLYMERIC CAPSULES**  
[54] **CAPSULES POLYMERES**  
[72] RODRIGO-GOMEZ, RAUL, BE  
[72] SMITH, STEVEN DARYL, US  
[72] AOUD, YOUSEF, GEORGES, US  
[73] THE PROCTER & GAMBLE COMPANY, US  
[73] THE PROCTER & GAMBLE COMPANY, US  
[85] 2021-09-14  
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[25] EN  
[54] **CRYSTAL FORM OF PHOSPHODIESTERASE INHIBITOR, PREPARATION METHOD THEREFOR AND USE THEREOF**  
[54] **FORME CRISTALLINE D'UN INHIBITEUR DE PHOSPHODIESTERASE, SON PROCEDE DE PREPARATION ET SON UTILISATION**  
[72] WAN, ZHONGHUI, CN  
[72] LI, LIN, CN  
[73] TRANSTHERA SCIENCES (NANJING), INC., CN  
[85] 2021-09-15  
[86] 2020-03-13 (PCT/CN2020/079337)  
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[54] **GUTTER COVER**  
[54] **COUVRE-GOUTTIERE**  
[72] KRONEBERGER, JEFFREY TODD, US  
[73] KRONEBERGER, JEFFREY TODD, US  
[86] (3134303)  
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[51] **Int.Cl. B65D 53/00 (2006.01)**  
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[54] **MULTI-PORTION REMOVABLE COVER APPARATUS AND RELATED METHODS**  
[54] **APPAREIL DU TYPE COUVERCLE AMOVIBLE A PARTIES MULTIPLES ET PROCEDES ASSOCIES**  
[72] GAYER, MARK, US  
[73] GAYER, MARK, US  
[86] (3135710)  
[87] (3135710)  
[22] 2013-07-11  
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[54] **DISK BRAKE AND BRAKE PAD**  
[54] **FREIN A DISQUE ET GARNITURE DE FREIN**  
[72] PETSCHKE, ANDREAS, DE  
[72] ADELUNG, MATTHIAS, DE  
[72] FRICKE, JENS, DE  
[72] SCHROPP, JOSEF, DE  
[73] KNORR-BREMSE SYSTEME FUR NUTZFAHRZEUGE GMBH, DE  
[85] 2021-10-08  
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[25] EN  
[54] **VAPOUR PROVISION SYSTEM AND CORRESPONDING METHOD**  
[54] **SYSTEME DE FOURNITURE DE VAPEUR ET PROCEDE CORRESPONDANT**  
[72] SUTTON, JOSEPH, GB  
[73] NICOVENTURES TRADING LIMITED, GB  
[85] 2021-10-08  
[86] 2020-04-09 (PCT/GB2020/050922)  
[87] (WO2020/208356)  
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[25] EN  
[54] **COORDINATED CONVEYERS IN AN AUTOMATED SYSTEM**  
[54] **CONVOYEURS COORDONNES DANS UN SYSTEME AUTOMATISE**  
[72] GORMAN, JOHN G., US  
[73] TEAM CONVEYER INTELLECTUAL PROPERTIES, LLC, US  
[85] 2021-10-08  
[86] 2020-03-19 (PCT/US2020/023718)  
[87] (WO2020/210001)  
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[25] EN

[54] **ORAL RINSE COMPOSITIONS FOR REDUCING PATHOGENS UNDERLYING TOOTH DECAY, PERIODONTITIS AND ORAL MALODOR**

[54] **COMPOSITIONS DE RINCAGE BUCCAL POUR REDUIRE LES PATHOGENES RESPONSABLES DE LA CARIE DENTAIRE, DE LA PARODONTITE ET DE LA MAUVAISE HALEINE**

[72] SCALA, ANTHONY, US  
[72] MALPESO, PASQUALE, US  
[72] NICKELS, MICHAEL L., US  
[72] CROSSETTI, HENRY W., US  
[72] WILCOX-ADELMAN, SARAH, US  
[73] BLACK TULIP MANAGEMENT, INC., US

[85] 2021-10-08  
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[87] (WO2020/210509)  
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[51] **Int.Cl. G01N 35/02 (2006.01)**

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[54] **RECEPTACLE TRANSPORT SYSTEM FOR AN ANALYTICAL SYSTEM**

[54] **SYSTEME DE TRANSPORT DE RECEPTACLE POUR SYSTEME ANALYTIQUE**

[72] SILBERT, ROLF, US  
[72] PENG, HONGRAN, US  
[72] BUSE, DAVID AARON, US  
[72] COMBS, DAVID H., US  
[73] GEN-PROBE INCORPORATED, US

[85] 2021-10-21  
[86] 2020-04-29 (PCT/US2020/030481)  
[87] (WO2020/226969)  
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[54] **DENTAL FLOSS DISPENSER**

[54] **DISTRIBUTEUR DE FIL DENTAIRE**

[72] CULLY, EDWARD H., US  
[72] SCOTTI, CHRISTINE M., US  
[73] W. L. GORE & ASSOCIATES, INC., US

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[86] 2019-06-12 (PCT/US2019/036807)  
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[51] **Int.Cl. A24F 40/42 (2020.01) A24F 40/10 (2020.01) A24F 40/46 (2020.01)**

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[54] **CARTRIDGE AND ELECTRONIC CIGARETTE**

[54] **CARTOUCHE ET CIGARETTE ELECTRONIQUE**

[72] ZHANG, YUNKAI, CN  
[72] HU, RUILONG, CN  
[72] XU, ZHONGLI, CN  
[72] LI, YONGHAI, CN  
[73] SHENZHEN FIRST UNION TECHNOLOGY CO., LTD., CN

[85] 2021-11-03  
[86] 2020-05-06 (PCT/CN2020/088765)  
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[30] CN (201920645593.5) 2019-05-07

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[51] **Int.Cl. B25J 9/10 (2006.01) G07D 11/16 (2019.01) B25J 13/08 (2006.01) B65H 5/08 (2006.01) B65H 43/08 (2006.01)**

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[54] **OBJECT CONVEYING APPARATUS**

[54] **DISPOSITIF DE TRANSPORT D'OBJETS**

[72] UEMIZO, YOSHIKI, JP  
[72] UEDA, TAKASHI, JP  
[73] JAPAN CASH MACHINE CO., LTD., JP

[85] 2021-11-03  
[86] 2020-06-16 (PCT/JP2020/023514)  
[87] (WO2021/014825)  
[30] JP (2019-135157) 2019-07-23

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[51] **Int.Cl. A23G 1/48 (2006.01) A23L 7/122 (2016.01) A23L 33/20 (2016.01) A23P 10/20 (2016.01) A23G 1/40 (2006.01) A23G 1/46 (2006.01) A23G 1/54 (2006.01) A23G 3/34 (2006.01) A23G 3/36 (2006.01) A23G 3/42 (2006.01) A23G 3/46 (2006.01) A23G 3/48 (2006.01) A23G 3/54 (2006.01)**

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[54] **CONFECTIONERY COMPOSITION**

[54] **COMPOSITION DE CONFISERIE**

[72] DUSSOL, JEAN-MAURICE, US  
[72] CLOS, MICHAEL, US  
[73] KRAFT FOODS SCHWEIZ HOLDING GMBH, CH

[85] 2021-11-04  
[86] 2020-05-28 (PCT/EP2020/064855)  
[87] (WO2020/239917)  
[30] GB (1907749.4) 2019-05-31

[11] **3,139,444**  
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[51] **Int.Cl. B65B 13/02 (2006.01) B21F 9/02 (2006.01) B26D 7/14 (2006.01) B65B 13/22 (2006.01) B65B 13/24 (2006.01) B65B 25/00 (2006.01)**

[25] EN

[54] **APPARATUS FOR TENSIONING A CABLE LACING TAPE DEVICE**

[54] **APPAREIL PERMETTANT DE TENDRE UN DISPOSITIF DE RUBAN D'ENTRELACEMENT DE CABLES**

[72] FILDES, TREVOR D., US  
[72] TYRRELL, JAMES W., US  
[72] EATON, EDWARD T., US  
[72] ZANTOUT, ALAN E., US  
[72] WEIBY, MICHAEL R., US  
[72] HOFFMAN, RANDAL E., US  
[73] DANIELS MANUFACTURING CORPORATION, US

[85] 2021-11-05  
[86] 2020-05-05 (PCT/US2020/031434)  
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[25] EN

[54] **A MULTILATERAL JUNCTION**

[54] **JONCTION MULTILATERALE**

[72] STEELE, DAVID JOE, US

[72] JELLY, CHRISTIAN ALEXANDER, AU

[72] DAHL, ESPEN, NO

[73] HALLIBURTON ENERGY SERVICES, INC., US

[85] 2021-11-09

[86] 2020-08-24 (PCT/US2020/047668)

[87] (WO2021/041331)

[30] US (62/894,589) 2019-08-30

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[51] **Int.Cl. E05D 15/06 (2006.01) E05D 13/00 (2006.01)**

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[54] **LOW TRACK ASSEMBLY AND SLIDING DOOR**

[54] **ASSEMBLAGE PROFIL BAS ET PORTE COULISSANTE**

[72] WEI, WUXIANG, CN

[73] IDEAL SANITARY WARE CO., LTD., CN

[85] 2021-11-29

[86] 2020-11-26 (PCT/CN2020/131903)

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[25] EN

[54] **PROCESS FOR RECLAMATION OF POLYESTER BY REACTOR ADDITION**

[54] **PROCESSUS DE RECUPERATION DE POLYESTER PAR ADDITION AU REACTEUR**

[72] JOSHI, TARUN, US

[72] SIDDIQUI, MUTEEB, US

[72] HAARMANN, KLAUS, US

[72] BRADNAM, JERRY, US

[72] BROWN, SEAN, US

[72] RAZEEM, MOHAMMED, US

[72] BARENBERG, WILLIAM J., US

[72] BARAKAT, NICHOLAS P., US

[73] OCTAL SAOC FZC, SULTANATE OF OMAN, OM

[85] 2021-11-18

[86] 2020-05-08 (PCT/IB2020/054363)

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[30] US (62/850,168) 2019-05-20

[30] US (16/808,939) 2020-03-04

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[51] **Int.Cl. E05B 15/00 (2006.01)**

[25] EN

[54] **ADJUSTABLE BAFFLE AND DOORFRAME HAVING THE ADJUSTABLE BAFFLE**

[54] **CHICANE AJUSTABLE ET ENCADREMENT DE PORTE COMPORTANT LA CHICANE AJUSTABLE**

[72] LEE, CHING-WAN, TW

[73] TAIWAN FU HSING INDUSTRIAL CO., LTD., TW

[86] (3141529)

[87] (3141529)

[22] 2021-12-07

[30] TW (109143476) 2020-12-09

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[13] C

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[25] EN

[54] **INJECTABLE AQUEOUS IMPLANT FORMULATION CONTAINING ASCORBIC ACID**

[54] **FORMULATION D'IMPLANT AQUEUSE INJECTABLE CONTENANT DE L'ACIDE ASCORBIQUE**

[72] SUPPIGER, DANIEL, CH

[72] BUXTON, PAUL, CH

[72] KURZ, NINO, CH

[73] GEISTLICH PHARMA AG, CH

[85] 2021-11-25

[86] 2020-06-12 (PCT/EP2020/066267)

[87] (WO2020/249711)

[30] EP (19180283.4) 2019-06-14

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[51] **Int.Cl. H01P 1/06 (2006.01) H01Q 5/321 (2015.01) H01Q 9/28 (2006.01)**

[25] EN

[54] **GRADUATED FREQUENCY RESPONSE NON-CONTACTING SLIP RING PROBE**

[54] **SONDE A BAGUE COLLECTRICE SANS CONTACT A REPOSE DE FREQUENCE GRADUEE**

[72] PEARSON JR., PHIL E., US

[73] MOOG INC., US

[85] 2021-11-25

[86] 2020-05-27 (PCT/US2020/034716)

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[30] US (62/853,484) 2019-05-28

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[13] C

[51] **Int.Cl. B01D 27/08 (2006.01) B01D 35/30 (2006.01)**

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[54] **FILTER ELEMENT**

[54] **ELEMENT FILTRE**

[72] STAMEY, WILLIE LUTHER, US

[72] ROLL, MARK A., US

[73] MANN+HUMMEL FILTRATION TECHNOLOGY US LLC, US

[85] 2021-12-13

[86] 2020-06-12 (PCT/US2020/037470)

[87] (WO2020/252289)

[30] US (16/442,222) 2019-06-14

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[11] **3,143,826**  
[13] C  
[51] **Int.Cl. A23B 4/052 (2006.01) A23L 5/10 (2016.01) A23B 4/056 (2006.01)**  
[25] EN  
[54] **COLD SMOKE SMOKER**  
[54] **FUMOIR A FUMEE FROIDE**  
[72] NEUMAN, ANDREW, US  
[73] FRANK BRUNCKHORST CO., LLC, US  
[85] 2022-01-12  
[86] 2020-07-24 (PCT/US2020/043535)  
[87] (WO2021/016572)  
[30] US (62/878,658) 2019-07-25

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[11] **3,144,655**  
[13] C  
[51] **Int.Cl. G02B 27/01 (2006.01) G02B 17/00 (2006.01) G02B 27/30 (2006.01)**  
[25] EN  
[54] **COMPACT HEAD-MOUNTED DISPLAY SYSTEM**  
[54] **SYSTEME DE VISIOCASQUE COMPACT**  
[72] AMITAI, YAAKOV, IL  
[73] LUMUS LTD, IL  
[86] (3144655)  
[87] (3144655)  
[22] 2015-04-21  
[62] 2,946,704  
[30] IL (232197) 2014-04-23

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[11] **3,144,781**  
[13] C  
[51] **Int.Cl. B05B 11/02 (2006.01) B05B 7/04 (2006.01)**  
[25] EN  
[54] **ALL PLASTIC HAND FOAM PUMP**  
[54] **POMPE A MOUSSE A MAIN ENTIEREMENT EN PLASTIQUE**  
[72] ARMINAK, ARMIN, US  
[73] ARMINAK, ARMIN, US  
[85] 2021-12-21  
[86] 2020-07-01 (PCT/US2020/040451)  
[87] (WO2021/003240)  
[30] US (62/869,978) 2019-07-02  
[30] US (16/917,198) 2020-06-30

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[11] **3,144,869**  
[13] C  
[51] **Int.Cl. C07D 495/04 (2006.01) A61K 31/381 (2006.01) A61P 1/16 (2006.01) A61P 3/10 (2006.01) A61P 9/04 (2006.01)**  
[25] EN  
[54] **THIENO[3,2-B]THIOPHENE-2-CARBOXYLIC ACID COMPOUNDS HAVING BCKDK INHIBITING ACTIVITY**  
[54] **COMPOSES D'ACIDE THIENO[3,2-B]THIOPHENE-2-CARBOXYLIQUE AYANT UNE ACTIVITE INHIBITRICE DE BCKDK**  
[72] BHATTACHARYA, SAMIT KUMAR, US  
[72] BUZON, LEANNE MARIE, US  
[72] FILIPSKI, KEVIN JAMES, US  
[72] GRIFFITH, DAVID ANDREW, US  
[72] KORMOS, BETHANY LYN, US  
[72] MARTINEZ-ALSINA, LUIS ANGEL, US  
[72] MILLER, RUSSELL ALAN, US  
[72] REESE, MATTHEW RICHARD, US  
[72] ROTH FLACH, RACHEL JANE, US  
[72] ZHANG, YUAN, US  
[73] PFIZER INC., US  
[85] 2021-12-22  
[86] 2020-06-26 (PCT/IB2020/056066)  
[87] (WO2020/261205)  
[30] US (62/868,057) 2019-06-28  
[30] US (62/960,817) 2020-01-14  
[30] US (63/031,719) 2020-05-29

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[11] **3,145,123**  
[13] C  
[51] **Int.Cl. E05B 65/10 (2006.01) E05C 19/02 (2006.01) E05C 21/00 (2006.01)**  
[25] EN  
[54] **QUIET LATCH FOR A LOCKING DEVICE**  
[54] **LOQUET SILENCIEUX POUR DISPOSITIF DE VERROUILLAGE**  
[72] YALAMATI, BHARGAV, IN  
[72] CHETAN, V, IN  
[72] SHETTY, SACHIN, CHANDRA, IN  
[72] YADAV, PRABHAT, KUMAR, IN  
[73] SCHLAGE LOCK COMPANY LLC, US  
[86] (3145123)  
[87] (3145123)  
[22] 2017-11-29  
[62] 3,050,084  
[30] US (15/363,180) 2016-11-29

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[11] **3,145,484**  
[13] C  
[51] **Int.Cl. A61B 90/70 (2016.01) A61B 1/00 (2006.01) A61L 2/28 (2006.01)**  
[25] EN  
[54] **METHOD AND APPARATUS TO EVALUATE INTERNAL FLEXIBLE ENDOSCOPE CHANNELS IN THE CONTEXT OF ENDOSCOPE PORTS AND CHANNEL COMPLEXITIES**  
[54] **PROCEDE ET APPAREIL POUR EVALUER DES CANAUX D'ENDOSCOPE SOUPLES INTERNES DANS LE CONTEXTE DE PORTS D'ENDOSCOPE ET DE COMPLEXITES DE CANAL**  
[72] ROBINSON, NANCY A., US  
[73] AMERICAN STERILIZER COMPANY, US  
[85] 2022-01-24  
[86] 2020-08-12 (PCT/US2020/045860)  
[87] (WO2021/034557)  
[30] US (16/542,734) 2019-08-16

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[11] **3,145,930**  
[13] C  
[51] **Int.Cl. B65G 69/00 (2006.01) A01D 90/00 (2006.01) B65G 67/00 (2006.01) G01G 15/00 (2006.01) G01G 23/16 (2006.01)**  
[25] EN  
[54] **MATERIAL WEIGHT MEASUREMENT SYSTEM**  
[54] **SYSTEME DE MESURE DU POIDS D'UN MATERIAU**  
[72] VON MUENSTER, NICHOLAS, US  
[73] SCALE-TEC, LTD., US  
[86] (3145930)  
[87] (3145930)  
[22] 2022-01-18  
[30] US (63/139,128) 2021-01-19  
[30] US (17/576,542) 2022-01-14

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[11] **3,146,261**  
[13] C  
[51] **Int.Cl. B22D 19/14 (2006.01)**  
[25] EN  
[54] **COMPOSITE WEAR PART**  
[54] **PIECE D'USURE COMPOSITE**  
[72] MARGUILLIER, DAVID, BE  
[72] CLERMONT, BENOIT, BE  
[72] TRAN, MICHEL, BE  
[73] MAGOTTEAUX INTERNATIONAL S.A., BE  
[85] 2022-01-06  
[86] 2021-01-19 (PCT/EP2021/051040)  
[87] (WO2021/160381)  
[30] BE (BE2020/5083) 2020-02-11



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[11] **3,146,557**  
[13] C

[51] **Int.Cl. C10G 51/02 (2006.01) B01J 8/18 (2006.01)**  
[25] EN  
[54] **FLUID CATALYTIC CRACKING PROCESS AND APPARATUS FOR MAXIMIZING LIGHT OLEFIN YIELD AND OTHER APPLICATIONS**  
[54] **PROCEDE ET APPAREIL DE CRAQUAGE CATALYTIQUE DE FLUIDE PERMETTANT D'AUGMENTER AU MAXIMUM LE RENDEMENT EN OLEFINES LEGERES, ET AUTRES APPLICATIONS ASSOCIEES**  
[72] CHEN, LIANG, US  
[72] LOEZOS, PETER, US  
[72] MARRI, RAMA RAO, US  
[72] TOMSULA, BRYAN, US  
[72] HOOD, JON A., US  
[72] SINGH, HARDIK, US  
[72] DORSEY, MICHAEL, US  
[72] BRECKENRIDGE, JUSTIN, US  
[73] LUMMUS TECHNOLOGY LLC, US  
[85] 2022-01-07  
[86] 2020-07-08 (PCT/US2020/041148)  
[87] (WO2021/011252)  
[30] US (16/511,645) 2019-07-15

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[11] **3,147,945**  
[13] C

[51] **Int.Cl. A23C 3/02 (2006.01) F24H 15/14 (2022.01) A01J 9/00 (2006.01) A01J 9/04 (2006.01) A01J 11/00 (2006.01) A23C 3/033 (2006.01) A23C 3/037 (2006.01)**  
[25] EN  
[54] **METHOD AND SYSTEM FOR DIRECTLY HEATING A PROTEIN-ENRICHED MILK PRODUCT BY INTRODUCING STEAM INTO SAID MILK PRODUCT**  
[54] **PROCEDE ET DISPOSITIF DE CHAUFFAGE DIRECT D'UN PRODUIT LAITIER ENRICH EN PROTEINES AU MOYEN DE L'INTRODUCTION DE LA VAPEUR D'EAU DANS CE PRODUIT LAITIER**  
[72] GLINKE, DENNIS, DE  
[72] ROLLE, ULRICH, DE  
[72] GEHLING, JURGEN, DE  
[72] TACKE, LUDGER, DE  
[72] ASSING, HUBERT, DE  
[73] GEA TDS GMBH, DE  
[85] 2022-01-19  
[86] 2020-07-10 (PCT/EP2020/000130)  
[87] (WO2021/013377)  
[30] DE (10 2019 005 133.5) 2019-07-24

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[11] **3,148,053**  
[13] C

[51] **Int.Cl. H04W 88/06 (2009.01)**  
[25] EN  
[54] **METHOD AND APPARATUS TO MAXIMIZE SIMULTANEOUS MODEM OPERATIONS IN A CONVERGED COMMUNICATION DEVICE**  
[54] **PROCEDE ET APPAREIL POUR MAXIMISER DES OPERATIONS DE MODEM SIMULTANEEES DANS UN DISPOSITIF DE COMMUNICATION CONVERGENTE**  
[72] ALFARO, JAVIER, US  
[72] BYK, DENNIS A., US  
[72] BOERGER, MARK A., US  
[72] ANTILLA, MARK, US  
[73] MOTOROLA SOLUTIONS, INC., US  
[85] 2022-01-19  
[86] 2020-07-16 (PCT/US2020/042242)  
[87] (WO2021/021450)  
[30] US (16/525,864) 2019-07-30

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[11] **3,148,862**  
[13] C

[51] **Int.Cl. H01M 8/0267 (2016.01) H01M 8/023 (2016.01) H01M 8/2483 (2016.01) H01M 8/10 (2016.01) H01M 8/04746 (2016.01)**  
[25] EN  
[54] **FUEL CELL STACK AND OPERATION METHOD FOR FUEL CELL STACK**  
[54] **EMPILEMENT DE PILES A COMBUSTIBLE ET SON PROCEDE DE FONCTIONNEMENT**  
[72] KATO, YUMA, JP  
[72] MAEKAWA, AKIRA, JP  
[73] KABUSHIKI KAISHA TOSHIBA, JP  
[73] TOSHIBA ENERGY SYSTEMS & SOLUTIONS CORPORATION, JP  
[85] 2022-01-26  
[86] 2020-09-04 (PCT/JP2020/033618)  
[87] (WO2021/045197)  
[30] JP (2019-162198) 2019-09-05

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[11] **3,149,616**  
[13] C

[51] **Int.Cl. H05K 7/20 (2006.01) H01M 10/613 (2014.01) H01M 10/6567 (2014.01) F28D 21/00 (2006.01) F28F 21/00 (2006.01)**  
[25] EN  
[54] **USE OF A COMPOSITE MATERIAL FOR ABSORBING AND DISTRIBUTING LIQUIDS IN ACTIVELY AND/OR PASSIVELY COOLED CURRENT-CARRYING SYSTEMS**  
[54] **UTILISATION D'UN MATERIAU COMPOSITE SERVANT A ABSORBER ET DISTRIBUER DES LIQUIDES DANS DES SYSTEMES DE TRANSPORT DE COURANT REFROIDIS ACTIVEMENT ET/OU PASSIVEMENT**  
[72] SCHNEIDER, ULRICH, DE  
[72] SENNE, SARAH, DE  
[72] KRITZER, PETER, DE  
[73] CARL FREUDENBERG KG, DE  
[85] 2022-02-01  
[86] 2020-10-08 (PCT/EP2020/078201)  
[87] (WO2021/069539)  
[30] DE (10 2019 127 180.0) 2019-10-09

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[11] **3,151,357**  
[13] C

[51] **Int.Cl. C09D 5/08 (2006.01) C09D 7/61 (2018.01) C23F 11/00 (2006.01)**

[25] EN

[54] **ANTI-CORROSION AND/OR PASSIVATION COMPOSITIONS FOR METAL CONTAINING SUBSTRATES AND METHODS FOR MAKING, ENHANCING, AND APPLYING THE SAME**

[54] **COMPOSITIONS ANTICORROSION OU PASSIVATION POUR DES SUBSTRATS COMPORTANT DU METAL ET PROCEDES CONNEXES DE FABRICATION, AMELIORATION ET APPLICATION**

[72] ZHANG, WEILONG, US  
[72] KRYZMAN, MICHAEL A., US  
[72] ZAFIRIS, GEORGIOS S., US  
[72] JAWOROWSKI, MARK R., US  
[72] PANZA-GIOSA, ROQUE, CA  
[72] MANZINI, MARILEA, CA  
[73] GOODRICH CORPORATION, US  
[86] (3151357)  
[87] (3151357)  
[22] 2015-03-02  
[62] 2,883,546  
[30] US (61/971,993) 2014-03-28  
[30] US (14/316,403) 2014-06-26  
[30] US (14/316,123) 2014-06-26

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[11] **3,152,895**  
[13] C

[51] **Int.Cl. G01S 15/32 (2006.01) G01S 15/36 (2006.01) G01S 15/88 (2006.01)**

[25] FR

[54] **SYSTEM AND ACOUSTIC METHOD FOR FAST ASSESSMENT OF BLOCKAGES IN PIPES**

[54] **SYSTEME ET METHODE ACOUSTIQUE D'EVALUATION RAPIDE D'OBSTRUCTIONS DE TUYAUX**

[72] TARAS, ANDRE ROMAN, CA  
[72] SOARES, MATHIEU, CA  
[73] HYDRO-QUEBEC, CA  
[86] (3152895)  
[87] (3152895)  
[22] 2022-03-22

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[11] **3,155,897**  
[13] C

[51] **Int.Cl. A47F 5/06 (2006.01) A47G 23/06 (2006.01)**

[25] EN

[54] **REVERSIBLE MULTI-CONFIGURATION MODULAR DINNERWARE / COOKWARE / SERVEWARE APPARATUS AND METHOD**

[54] **APPAREIL A SET DE VAISSELLE/BATTERIE DE CUISINE/ARTICLE A SERVICE DE TABLE MODULAIRE A CONFIGURATION MULTIPLE REVERSIBLE ET PROCEDE ASSOCIE**

[72] KWAK, JANET, US  
[73] CHAPTER CERAMICS, DBA OLLO, US  
[85] 2022-04-25  
[86] 2020-11-05 (PCT/US2020/059232)  
[87] (WO2021/092268)  
[30] US (62/931,111) 2019-11-05

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[11] **3,157,308**  
[13] C

[51] **Int.Cl. H01M 10/643 (2014.01) H01M 10/6557 (2014.01)**

[25] EN

[54] **A BATTERY PACK AND A METHOD OF MANUFACTURING A BATTERY PACK**

[54] **BLOC-BATTERIE ET PROCEDE DE FABRICATION D'UN BLOC-BATTERIE**

[72] FLANNERY, BARRY, IE  
[73] XEROTECH LIMITED, IE  
[85] 2022-05-04  
[86] 2019-10-18 (PCT/EP2019/078461)  
[87] (WO2020/094365)  
[30] GB (1818053.9) 2018-11-05

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[11] **3,158,780**  
[13] C

[51] **Int.Cl. F16M 11/02 (2006.01) F16M 11/18 (2006.01) F16M 13/02 (2006.01) G01F 23/292 (2006.01)**

[25] EN

[54] **LOCKING SYSTEM FOR ALIGNING A DEVICE**

[54] **SYSTEME DE VERROUILLAGE POUR L'ALIGNEMENT D'UN DISPOSITIF**

[72] KELLY, LUKE, US  
[72] BARKHURST, COREY, US  
[72] FINCHAM, COLE, US  
[73] AGI SURETRACK LLC, US  
[86] (3158780)  
[87] (3158780)  
[22] 2022-05-13  
[30] US (17/581,694) 2022-01-21

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[11] **3,161,147**  
[13] C

[51] **Int.Cl. A61M 25/02 (2006.01) A41D 13/12 (2006.01) A61J 15/00 (2006.01) A61M 39/08 (2006.01)**

[25] EN

[54] **APPARATUS AND METHODS FOR SECURING MEDICAL TUBES ON PATIENTS**

[54] **APPAREIL ET PROCEDES DE FIXATION DE TUBES MEDICAUX SUR DES PATIENTS**

[72] PALYA, SARAH, US  
[73] GUS GEAR, INC., US  
[85] 2022-05-11  
[86] 2020-11-12 (PCT/US2020/060101)  
[87] (WO2021/097006)  
[30] US (16/680,872) 2019-11-12

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[11] **3,163,380**  
[13] C

[51] **Int.Cl. H04B 7/185 (2006.01) H04L 1/00 (2006.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR OPERATING A MULTI-BAND SATELLITE TERMINAL**

[54] **SYSTEMES ET PROCEDES D'UTILISATION D'UNE BORNE DE SATELLITE MULTIBANDE**

[72] KHAN, TAYYAB, US  
[72] SAMAVEDAM, KRISHNA, US  
[72] CHOQUETTE, GEORGE, US  
[73] HUGHES NETWORK SYSTEMS, LLC, US  
[85] 2022-06-29  
[86] 2020-12-29 (PCT/US2020/067306)  
[87] (WO2021/138317)  
[30] US (16/731,605) 2019-12-31

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[11] **3,163,785**  
[13] C

[51] **Int.Cl. A47L 9/30 (2006.01) F21K 9/61 (2016.01) A47L 11/40 (2006.01) F21V 8/00 (2006.01) F21V 33/00 (2006.01)**

[25] EN

[54] **SURFACE CLEANING APPARATUS ILLUMINATION SYSTEM**

[54] **APPAREIL D'ECLAIRAGE D'APPAREIL DE NETTOYAGE DE SURFACE**

[72] THORNE, JASON B., US

[72] BROWN, ANDRE D., US

[72] XU, KAI, CN

[73] SHARKNINJA OPERATING LLC, US

[86] (3163785)

[87] (3163785)

[22] 2019-10-02

[62] 3,114,587

[30] US (62/740,096) 2018-10-02

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[11] **3,163,882**  
[13] C

[51] **Int.Cl. B65G 43/08 (2006.01)**

[25] EN

[54] **STORAGE AND PICKING SYSTEM AND METHOD FOR PREDICTING AND/OR AVERTING A FUTURE DISRUPTION**

[54] **SYSTEME DE STOCKAGE ET DE PRELEVEMENT ET PROCEDE DE PREDICTION ET/OU DE PREVENTION DE DYSFONCTIONNEMENT FUTUR**

[72] GAGGL, MARKUS, AT

[73] TGW LOGISTICS GROUP GMBH, AT

[85] 2022-06-06

[86] 2020-12-07 (PCT/AT2020/060436)

[87] (WO2021/113886)

[30] AT (A51089/2019) 2019-12-13

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[11] **3,163,982**  
[13] C

[51] **Int.Cl. C23C 2/26 (2006.01) B23K 26/00 (2014.01) C23C 28/02 (2006.01)**

[25] EN

[54] **PRE-COATED STEEL SHEET COMPRISING AN ADDITIONAL COATING FOR INCREASING THE MECHANICAL STRENGTH OF THE WELD METAL ZONE OF A WELDED STEEL PART PREPARED FROM SAID PRE-COATED SHEET**

[54] **TOLE D'ACIER PRE-RETVETUE COMPRENANT UN REVETEMENT SUPPLEMENTAIRE POUR AUGMENTER LA RESISTANCE MECANIQUE DE LA ZONE DE METAL DE SOUDURE D'UNE PIECE EN ACIER SOUDE PREPAREE A PARTIR DE LADITE TOLE PRE-RETVETUE**

[72] ZHOU, YUNHONG NORMAN, CA

[72] SAHA, DULAL CHANDRA, CA

[72] BIRO, ELLIOT, CA

[72] MACWAN, ANDREW, CA

[72] GERLICH, ADRIAN PIOTR, CA

[72] KHAN, SHEHRYAR, CA

[73] ARCELORMITTAL, LU

[85] 2022-06-07

[86] 2020-12-15 (PCT/IB2020/061928)

[87] (WO2021/130602)

[30] IB (PCT/IB2019/061333) 2019-12-24

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[11] **3,164,401**  
[13] C

[51] **Int.Cl. H04W 52/02 (2009.01) H04L 27/26 (2006.01)**

[25] EN

[54] **FREQUENCY-DOMAIN MODULATION SCHEME FOR LOW PEAK AVERAGE POWER RATIO**

[54] **SCHEMA DE MODULATION DE DOMAINE FREQUENTIEL PERMETTANT UN FAIBLE RAPPORT DE PUISSANCE DE CRETE SUR PUISSANCE MOYENNE**

[72] XIN, YU, CN

[72] XU, JUN, CN

[72] XU, JIN, CN

[72] HUA, JIAN, CN

[73] ZTE CORPORATION, CN

[85] 2022-06-13

[86] 2019-12-13 (PCT/CN2019/125217)

[87] (WO2021/093074)

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[11] **3,165,881**  
[13] C

[51] **Int.Cl. B60L 13/06 (2006.01)**

[25] EN

[54] **RAILWAY VEHICLE WITH AERODYNAMIC LIFT CONTROL DEVICE**

[54] **VEHICULE FERROVIAIRE AVEC DISPOSITIF DE CONTROLE DE PORTANCE AERODYNAMIQUE**

[72] DING, SANSAN, CN

[72] YAO, SHUANBAO, CN

[72] CHEN, DAWEI, CN

[72] LIU, SHAOQING, CN

[72] JIANG, FUJIE, CN

[73] CRRQ QINGDAO SIFANG CO., LTD., CN

[85] 2022-06-23

[86] 2020-05-18 (PCT/CN2020/090779)

[87] (WO2021/135042)

[30] CN (202010001729.6) 2020-01-02

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[11] **3,167,175**  
[13] C

[51] **Int.Cl. C12H 1/16 (2006.01) C12G 3/00 (2019.01) C12H 1/00 (2006.01) C12H 1/06 (2006.01) C12H 1/22 (2006.01)**

[25] EN

[54] **ALCOHOLIC BEVERAGE MATURING DEVICE**

[54] **DISPOSITIF DE MATURATION DE BOISSON ALCOOLISEE**

[72] BAILEY, EDWARD, US

[72] LINDSAY, NORMA, US

[73] GREEN RIVER SPIRITS COMPANY, US

[86] (3167175)

[87] (3167175)

[22] 2016-10-11

[62] 3,002,021

[30] US (14/885,605) 2015-10-16

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December 5, 2023

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[11] **3,169,169**  
[13] C

[51] **Int.Cl. G06F 16/73 (2019.01) G06F 16/783 (2019.01)**

[25] EN

[54] **METHOD, SYSTEM AND COMPUTER PROGRAM PRODUCT FOR SELF-LEARNED AND PROBABILISTIC-BASED PREDICTION OF INTER-CAMERA OBJECT MOVEMENT**

[54] **PROCEDE, SYSTEME ET PRODUIT PROGRAMME INFORMATIQUE DE PREDICTION A APPRENTISSAGE AUTOMATIQUE ET PROBABILISTE DE MOUVEMENT D'OBJET ENTRE CAMERAS**

[72] LEE, CHIA YING, US  
[72] LIPCHIN, ALEKSEY, US  
[72] WANG, YIN, US  
[72] LIU, KANGYAN, US  
[73] MOTOROLA SOLUTIONS, INC, US  
[85] 2022-08-23  
[86] 2021-03-05 (PCT/US2021/021100)  
[87] (WO2021/188310)  
[30] US (16/819,967) 2020-03-16

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[11] **3,170,149**  
[13] C

[51] **Int.Cl. G10K 11/20 (2006.01) G10L 25/90 (2013.01)**

[25] EN

[54] **AIDING DEVICE FOR SINGING ON PITCH**

[54] **DISPOSITIF D'AIDE POUR CHANTER A LA BONNE HAUTEUR**

[72] MUAFFAK, DUNYA, CA  
[73] MUAFFAK, DUNYA, CA  
[86] (3170149)  
[87] (3170149)  
[22] 2022-08-09  
[30] US (63/231323) 2021-08-10

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[11] **3,172,051**  
[13] C

[51] **Int.Cl. A23D 7/005 (2006.01) A23L 5/00 (2016.01) A23L 7/109 (2016.01) A23D 9/007 (2006.01)**

[25] EN

[54] **OIL-AND-FAT-CONTAINING COMPOSITION AND PRODUCTION METHOD THEREFOR**

[54] **COMPOSITION CONTENANT DE L'HUILE ET DES MATIERES GRASSES ET SON PROCEDE DE PRODUCTION**

[72] IHARA, JUNICHIRO, JP  
[72] KONISHI, MANABU, JP  
[73] MIZKAN HOLDINGS CO., LTD., JP  
[85] 2022-08-17  
[86] 2021-02-08 (PCT/JP2021/004661)  
[87] (WO2021/166723)  
[30] JP (2020-027510) 2020-02-20  
[30] JP (PCT/JP2020/033144) 2020-09-01

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[11] **3,174,325**  
[13] C

[51] **Int.Cl. A41D 1/00 (2018.01) A41D 13/018 (2006.01) A41F 9/00 (2006.01)**

[25] EN

[54] **PROTECTIVE BELT APPARATUS**

[54] **APPAREIL DE CEINTURE DE PROTECTION**

[72] BRIGGS, LEONARD C., US  
[72] RAYCHAUDHURI, KAMAL K., US  
[72] FATEHI, MOHAMMAD T., US  
[73] BRIGGS BELT SYSTEMS, LLC, US  
[85] 2022-09-29  
[86] 2020-07-17 (PCT/US2020/042499)  
[87] (WO2021/206742)  
[30] US (16/844,049) 2020-04-09

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[11] **3,177,752**  
[13] C

[51] **Int.Cl. B25B 7/00 (2006.01) B25B 7/04 (2006.01) B25B 7/10 (2006.01) B25B 7/14 (2006.01)**

[25] EN

[54] **DUAL-MODE ADJUSTABLE PLIERS**

[54] **PINCE REGLABLE A DOUBLE MODE**

[72] FU, ZHIHONG, US  
[73] APEX BRANDS, INC., US  
[85] 2022-09-28  
[86] 2021-03-30 (PCT/US2021/024770)  
[87] (WO2021/206951)  
[30] US (63/005,968) 2020-04-06

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[11] **3,179,281**  
[13] C

[51] **Int.Cl. A61K 38/01 (2006.01) A61K 8/9789 (2017.01) A61K 8/64 (2006.01) A61K 36/185 (2006.01) A61P 19/04 (2006.01) A61P 29/00 (2006.01) C07K 14/415 (2006.01) A23L 33/185 (2016.01) A23J 1/14 (2006.01)**

[25] FR

[54] **PROTEIN HYDROLYSATE OF MORINGA PEREGRINA SEED CAKE FOR ITS APPLICATION AS A MEDICAMENT, PROCESS FOR OBTAINING SAME AND PHARMACEUTICAL AND DERMATOLOGICAL COMPOSITIONS**

[54] **HYDROLYSAT DE PROTEINES DU TOURTEAU DES GRAINES DE MORINGA PEREGRINA POUR SON APPLICATION EN TANT QUE MEDICAMENT, SON PROCEDE D'OBTENTION ET COMPOSITIONS PHARMACEUTIQUES ET DERMATOLOGIQUE**

[72] DODINET, ELIZABETH, FR  
[72] BOURGETEAU, VINCENT, FR  
[73] AGENCE FRANCAISE POUR LE DEVELOPPEMENT D'AL ULA, FR  
[85] 2022-11-17  
[86] 2021-05-21 (PCT/EP2021/063704)  
[87] (WO2021/234165)  
[30] FR (FR2005426) 2020-05-21

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[11] **3,187,003**  
[13] C

[51] **Int.Cl. B01J 37/08 (2006.01)**

[25] EN

[54] **IMPROVED PROCESS FOR THE COMMERCIAL PRODUCTION OF HIGH-QUALITY CATALYST MATERIALS**

[54] **PROCEDE AMELIORE DE PRODUCTION COMMERCIALE DE MATERIAUX CATALYSEURS DE HAUTE QUALITE**

[72] SCHUETZLE, ROBERT, US  
[72] SCHUETZLE, DENNIS, US  
[73] GREYROCK TECHNOLOGY, LLC, US  
[86] (3187003)  
[87] (3187003)  
[22] 2020-12-01  
[62] 3,160,158  
[30] US (16/602,770) 2019-12-04

**Brevets canadiens délivrés  
5 décembre 2023**

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[11] **3,194,571**  
[13] C

[51] **Int.Cl. C08F 210/16 (2006.01) C08F 4/6592 (2006.01)**

[25] EN

[54] **ZIEGLER-NATTA - METALLOCENE DUAL CATALYST SYSTEMS WITH ACTIVATOR-SUPPORTS**

[54] **SYSTEMES CATALYTIQUES DOUBLES DE TYPE ZIEGLER-NATTA/METALLOCENE PRESENTANT DES SUPPORTS D'ACTIVATEUR**

[72] DING, ERRUN, US

[72] TSO, CHUNG C., US

[72] YU, YOU LU, US

[72] YANG, QING, US

[72] BUCK, RICHARD M., US

[73] CHEVRON PHILLIPS CHEMICAL COMPANY LP, US

[86] (3194571)

[87] (3194571)

[22] 2016-06-28

[62] 2,989,918

[30] US (62/189,770) 2015-07-08

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[11] **3,206,572**  
[13] C

[51] **Int.Cl. H04L 69/22 (2022.01) G06F 16/40 (2019.01)**

[25] EN

[54] **SYSTEM AND METHOD FOR SEARCHING AND PLAYING A PREDETERMINED START AND END TIME OF A CLIP WITHIN A LARGER AUDIO OR VIDEO FILE**

[54] **SYSTEME ET PROCEDE POUR RECHERCHER ET LIRE UNE HEURE DE DEBUT ET DE FIN PREDETERMINEE D'UN CLIP DANS UN PLUS GROS FICHIER AUDIO OU VIDEO**

[72] ROY, CHRISTIAN, CA

[72] ROBICHAUD, DANIEL, CA

[72] GIGNAC, DOMINIC, CA

[72] COMEAU, BENJAMIN, CA

[72] RENE, MATHIEU, CA

[73] PODCRUNCH INC., CA

[85] 2023-07-26

[86] 2022-04-14 (PCT/CA2022/050580)

[87] (WO2022/217361)

[30] US (63/201,190) 2021-04-16

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[11] **3,196,911**  
[13] C

[51] **Int.Cl. A61K 31/465 (2006.01) A24B 15/16 (2020.01) A61K 9/00 (2006.01) A61K 47/04 (2006.01) A61K 47/36 (2006.01) A61K 47/44 (2017.01) A61P 25/34 (2006.01)**

[25] EN

[54] **COMPOSITIONS AND METHODS FOR SUBLINGUAL DELIVERY OF NICOTINE**

[54] **COMPOSITIONS ET METHODES POUR L'ADMINISTRATION SUBLINGUALE DE NICOTINE**

[72] DOCHERTY, JOHN, CA

[72] BUNKA, CHRISTOPHER ANDREW, CA

[73] POVIVA CORP., US

[85] 2023-04-27

[86] 2023-03-20 (PCT/US2023/015627)

[87] (3196911)

[30] US (17/700,628) 2022-03-22

[30] US (17/700,646) 2022-03-22

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[11] **3,210,673**  
[13] C

[51] **Int.Cl. F16F 7/10 (2006.01)**

[25] EN

[54] **VIBRATION CONTROL**

[54] **COMMANDE DE VIBRATIONS**

[72] HUDSON, EMMA, GB

[72] REYNOLDS, PAUL, GB

[72] HAWKINS, CHRISTOPHER, GB

[73] FSD ACTIVE LIMITED, GB

[85] 2023-08-02

[86] 2022-02-11 (PCT/EP2022/053448)

[87] (WO2022/171842)

[30] GB (2101975.7) 2021-02-12

[30] GB (2115261.6) 2021-10-22

# Canadian Applications Open to Public Inspection

November 19, 2023 to November 25, 2023

## Demandes canadiennes mises à la disponibilité du public

19 novembre 2023 au 25 novembre 2023

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[21] **3,159,503**  
[13] A1  
[51] **Int.Cl. H01R 13/639 (2006.01) G06F 1/16 (2006.01)**  
[25] EN  
[54] **COMPUTER POWER CORD RETENTION DEVICE**  
[54] **DISPOSITIF DE RETENUE DE CORDON D'ALIMENTATION D'ORDINATEUR**  
[72] BAKU, MAVINGA, CA  
[71] BAKU, MAVINGA, CA  
[22] 2022-05-20  
[41] 2023-11-19  
[30] US (17/664,073) 2022-05-19

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[21] **3,159,513**  
[13] A1  
[51] **Int.Cl. G12B 5/00 (2006.01)**  
[25] EN  
[54] **INSTALLATION TOOL FOR AFFIXING OBJECTS TO A PLURALITY OF VERTICAL SURFACES AND METHODS USING THEREOF**  
[54] **OUTIL D'INSTALLATION POUR FIXER DES OBJETS A PLUSIEURS SURFACES VERTICALES ET METHODES D'UTILISATION CONNEXES**  
[72] MARSHALL, CHRISTOPHER JASON ROY, CA  
[72] GROSHONG, ADAM WILLIS, CA  
[71] MARSHALL, CHRISTOPHER JASON ROY, CA  
[71] GROSHONG, ADAM WILLIS, CA  
[22] 2022-05-20  
[41] 2023-11-20

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[21] **3,159,514**  
[13] A1  
[51] **Int.Cl. B32B 29/06 (2006.01) B32B 7/025 (2019.01) G01L 1/18 (2006.01)**  
[25] EN  
[54] **METHODS FOR THE PRODUCTION OF ELECTRICALLY FUNCTIONAL PAPERS TO BE USED AS AS RAW MATERIALS FOR ELECTRONIC COMPONENTS DESIGN**  
[54] **METHODES POUR LA PRODUCTION DE PAPIERS ELECTRIQUEMENT FONCTIONNELS A UTILISER COMME MATIERES BRUTES POUR LA CONCEPTION DE COMPOSANTS ELECTRONIQUES**  
[72] RODOLPHE, KOEHLI, CA  
[71] RODOLPHE, KOEHLI, CA  
[22] 2022-05-20  
[41] 2023-11-20

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[21] **3,159,520**  
[13] A1  
[51] **Int.Cl. C09K 15/06 (2006.01) C02F 5/12 (2006.01) C09K 3/00 (2006.01) C09K 8/52 (2006.01) C09K 8/74 (2006.01) C09K 15/02 (2006.01) C23G 1/02 (2006.01)**  
[25] EN  
[54] **STABILIZING AQUEOUS AMINO ACID-HCl COMPOSITIONS**  
[54] **STABILISATION DE COMPOSITIONS AQUEUSES D'ACIDE AMINE ET DE CHLORHYDRATE DE LYSINE**  
[72] WEISSENBERGER, MARKUS, CA  
[72] GHEZELBASHAN, ARYAN, CA  
[72] CHKOLNY, NIKITA, CA  
[71] FLUID ENERGY GROUP LTD., CA  
[22] 2022-05-20  
[41] 2023-11-20

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[21] **3,159,525**  
[13] A1  
[51] **Int.Cl. B02C 13/26 (2006.01) B02C 13/02 (2006.01)**  
[25] EN  
[54] **PULVERIZER WITH VIBRATION REDUCER AND BASE FOR PULVERIZER**  
[54] **PULVERISATEUR COMPRENANT UN MECANISME D'ATTENUATION DES VIBRATIONS ET BASE POUR PULVERISATEUR**  
[72] LUTOSLAWSKI, JAREK, BM  
[72] ALDRIDGE, CLINT, BM  
[72] MUELLER, CHRIS, BM  
[71] TORXX KINETIC PULVERIZER LIMITED, BM  
[22] 2022-05-20  
[41] 2023-11-20

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[21] **3,159,645**  
[13] A1  
[51] **Int.Cl. C01B 3/02 (2006.01) C01B 3/06 (2006.01) C09K 8/80 (2006.01) E21B 43/16 (2006.01) E21B 43/20 (2006.01) E21B 43/24 (2006.01) E21B 43/26 (2006.01) E21B 43/267 (2006.01)**  
[25] EN  
[54] **AUGMENTED GENERATION OF HYDROGEN IN DEVIATED OR HORIZONTAL WELLS**  
[54] **GENERATION AUGMENTEE D'HYDROGENE DANS LES PUITES DEVIES OU HORIZONTAUX**  
[72] BUNIO, GARY, CA  
[72] CONACHER, MARK, CA  
[72] BIDGOOD, MICHAEL JOHN, CA  
[72] MORSE, ROBERT KING, US  
[72] ZAHYNACZ, RYAN, CA  
[72] GATES, IAN DONALD, CA  
[71] SUNCOR ENERGY INC., CA  
[22] 2022-05-19  
[41] 2023-11-19

**Demandes canadiennes mises à la disponibilité du public  
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[21] **3,159,928**  
[13] A1

[51] **Int.Cl. E04C 3/02 (2006.01)**  
[25] EN  
[54] **LINTEL**  
[54] **LINTEAU**  
[72] TEOLIS, ANGELO, CA  
[71] METAUX TRDM INC, CA  
[22] 2022-05-20  
[41] 2023-11-20

[21] **3,159,976**  
[13] A1

[51] **Int.Cl. C09D 7/65 (2018.01) C09D 7/80 (2018.01) C08J 3/20 (2006.01) C08L 23/06 (2006.01) C08L 23/12 (2006.01) C08L 25/06 (2006.01) C08L 27/06 (2006.01) C08L 67/02 (2006.01)**  
[25] EN  
[54] **THERMOPLASTIC-BASED COATING FLAKE**  
[54] **FLOCON DE REVETEMENT A BASE THERMOPLASTIQUE**  
[72] PETERSON, MYLES, CA  
[71] PETERSON, MYLES, CA  
[22] 2022-05-22  
[41] 2023-11-22

[21] **3,160,180**  
[13] A1

[51] **Int.Cl. C09J 7/21 (2018.01) A63B 60/14 (2015.01) C09J 7/30 (2018.01)**  
[25] EN  
[54] **REUSABLE, WATER-RESISTANT, ADHERABLE TAPE AND USE THEREOF**  
[54] **RUBAN ADHESIF REUTILISABLE ET RESISTANT A L'EAU, ET UTILISATION CONNEXE**  
[72] DESROSIERS, TONI MARIE, CA  
[71] ABEEGO DESIGNS INC., CA  
[22] 2022-05-25  
[41] 2023-11-25

[21] **3,160,262**  
[13] A1

[51] **Int.Cl. A61F 5/058 (2006.01)**  
[25] EN  
[54] **PREFABRICATED CUSTOMIZABLE CRANIAL REMODELLING ORTHOTIC**  
[54] **ORTHESE DE REMODELAGE CRANIEN PERSONNALISABLE PREFRABRIQUEE**  
[72] GOODNOUGH, JASON SHANE, CA  
[71] GOODNOUGH, JASON SHANE, CA  
[22] 2022-05-25  
[41] 2023-11-25

[21] **3,160,276**  
[13] A1

[51] **Int.Cl. G01F 11/24 (2006.01)**  
[25] EN  
[54] **MULTI-RESERVOIR FEEDING APPARATUS**  
[54] **APPAREIL D'ALIMENTATION A PLUSIEURS RESERVOIRS**  
[72] MASSICOTTE, RENE, CA  
[71] CAVADISTRIB. INC., CA  
[22] 2022-05-25  
[41] 2023-11-25

[21] **3,160,294**  
[13] A1

[51] **Int.Cl. G21B 3/00 (2006.01)**  
[25] EN  
[54] **LOW INPUT ENERGY DEUTERIUM TO HE FUSION REACTOR**  
[54] **REACTEUR DE FUSION DEUTERIUM-HELIUM A FAIBLE CONSOMMATION D'ENERGIE**  
[72] DUBE, MARCEL, CA  
[71] DUBE, MARCEL, CA  
[22] 2022-05-25  
[41] 2023-11-25

[21] **3,160,388**  
[13] A1

[51] **Int.Cl. C07K 16/10 (2006.01) C12N 15/13 (2006.01)**  
[25] EN  
[54] **ANTI-SARS-COV-2 SPIKE RECEPTOR BINDING DOMAIN (RBD) SINGLE DOMAIN ANTIBODIES AND METHODS OF USE THEREOF**  
[54] **ANTICORPS A DOMAINE UNIQUE DE LIAISON DU RECEPTEUR DE LA PROTEINE S ANTI-SRAS-COV-2 ET METHODES D'UTILISATION CONNEXE**  
[72] DORMESHKIN, DMITRI, BY  
[72] SHAPIRA, MICHAIL, BY  
[72] SHAPIRA, MICHAIL, BY  
[71] DORMESHKIN, DMITRI, BY  
[71] SHAPIRA, MICHAIL, BY  
[22] 2022-05-25  
[41] 2023-11-25

[21] **3,160,476**  
[13] A1

[51] **Int.Cl. B60R 25/24 (2013.01) B60R 25/20 (2013.01)**  
[25] EN  
[54] **VEHICLE ANTI-THEFT DEVICE**  
[54] **DISPOSITIF ANTIVOL DE VEHICULE**  
[72] DEMIRJIAN, AVO, CA  
[71] DEMIRJIAN, AVO, CA  
[22] 2022-05-26  
[41] 2023-11-25  
[30] US (17/664,901) 2022-05-25

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[21] **3,160,605**  
[13] A1

[51] **Int.Cl. A61H 1/00 (2006.01) A61F 5/01 (2006.01) A61F 5/56 (2006.01) A61H 23/02 (2006.01)**  
[25] EN  
[54] **OSCILLATING DEVICE FOR TEMPOROMANDIBULAR JOINT**  
[54] **DISPOSITIF OSCILLANT POUR UNE ARTICULATION TEMPOROMANDIBULAIRE**  
[72] REZNIKOV, NATALIE, CA  
[72] MOROZOV, ALEXEI V., CA  
[72] WARREN, JULIA, CA  
[72] VITALE, MAXIM, CA  
[72] TRAN, WINSTON, CA  
[72] MASON, WILFRED, CA  
[71] THE ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING/MCGILL UNIVERSIT, CA  
[22] 2022-05-25  
[41] 2023-11-25

[21] **3,161,226**  
[13] A1

[51] **Int.Cl. E03D 11/16 (2006.01) A47B 91/00 (2006.01)**  
[25] EN  
[54] **TOILET LEVELING CLIPS**  
[54] **DISPOSITIFS DE NIVELAGE DE TOILETTE**  
[72] DROSKI, ERIC, CA  
[71] DROSKI, ERIC, CA  
[22] 2022-06-01  
[41] 2023-11-24  
[30] US (17/752,336) 2022-05-24

[21] **3,161,230**  
[13] A1

[51] **Int.Cl. H04L 47/62 (2022.01) H04L 47/6275 (2022.01) H04L 51/226 (2022.01)**  
[25] EN  
[54] **METHOD AND SYSTEM FOR SELF-MANAGING AND CONTROLLING MESSAGE QUEUES**  
[54] **METHODE ET SYSTEME DE GESTION AUTONOME ET DE CONTROLE DES FILES D'ATTENTE DE MESSAGES**  
[72] PARKHI, CHAITANYA, CA  
[71] PARKHI, CHAITANYA, CA  
[22] 2022-06-01  
[41] 2023-11-24  
[30] US (17/752/297) 2022-05-24

[21] **3,161,240**  
[13] A1

[51] **Int.Cl. B29B 9/10 (2006.01)**  
[25] EN  
[54] **SYNTHETIC AGGREGATE**  
[54] **GRANULAT SYNTHETIQUE**  
[72] VANHOLTEN, ALEX, CA  
[72] BONNEWELL, ALEXANDER, CA  
[71] VANHOLTEN, ALEX, CA  
[22] 2022-06-01  
[41] 2023-11-24  
[30] US (17/752,322) 2022-05-24

[21] **3,161,241**  
[13] A1

[51] **Int.Cl. F16K 3/08 (2006.01) E21B 34/06 (2006.01) F04D 13/10 (2006.01) F04D 15/00 (2006.01)**  
[25] EN  
[54] **ANTI-SPIN CONTROL FOR AN ELECTRIC SUBMERSIBLE PUMP PERMANENT MAGNET MOTOR**  
[54] **CONTROLE ANTI-ROTATION POUR UN MOTEUR A AIMANT PERMANENT DE POMPE SUBMERSIBLE ELECTRIQUE**  
[72] BROWN, DONN J., US  
[72] SHETH, KETANKUMAR KANTILAL, US  
[72] ZHENG, DEZHI, US  
[71] HALLIBURTON ENERGY SERVICES, INC., US  
[22] 2022-06-01  
[41] 2023-11-19  
[30] US (17/748,833) 2022-05-19

[21] **3,162,728**  
[13] A1

[51] **Int.Cl. E04H 4/16 (2006.01) B25J 5/00 (2006.01) B25J 9/18 (2006.01)**  
[25] EN  
[54] **CLEANING ROBOT FOR SWIMMING POOLS**  
[54] **ROBOT DE NETTOYAGE POUR PISCINES**  
[72] LIU, YONGCHAO, CN  
[72] HAN, YANSHAN, CN  
[72] XIANG, RONG, CN  
[72] DING, HAO, CN  
[71] HUBEI YIMU ELECTRONIC TECHNOLOGY CO., LTD., CN  
[22] 2022-06-15  
[41] 2023-11-23  
[30] CN (202210564954.X) 2022-05-23

[21] **3,163,275**  
[13] A1

[51] **Int.Cl. B28B 23/02 (2006.01) B28B 1/14 (2006.01) C04B 38/08 (2006.01) C04B 38/10 (2006.01)**  
[25] EN  
[54] **DOUBLE ENCAPSULATED STYRO-AIRCRETE BUILDING PANELS**  
[54] **PANNEAUX DE CONSTRUCTION DE BETON STYRO-CELLULAIRE A DOUBLE ENCAPSULATION**  
[72] BRADLEY, PHILIP, CA  
[71] BRADLEY, PHILIP, CA  
[22] 2022-05-30  
[41] 2023-11-23  
[30] US (17751468) 2022-05-23

[21] **3,166,166**  
[13] A1

[51] **Int.Cl. G06Q 20/08 (2012.01) H04W 12/06 (2021.01) G06Q 20/40 (2012.01) H04W 12/65 (2021.01) H04L 9/32 (2006.01)**  
[25] EN  
[54] **DISTRIBUTED AUTHENTICATION IN AMBIENT COMMERCE**  
[54] **AUTHENTIFICATION DISTRIBUEE DANS LE COMMERCE AMBIANT**  
[72] DUNJIC, MILOS, CA  
[72] TAX, DAVID SAMUEL, CA  
[72] RASTOGI, KUSHANK, CA  
[72] PRENDERGAST, JONATHAN JOSEPH, CA  
[71] THE TORONTO-DOMINION BANK, CA  
[22] 2022-06-30  
[41] 2023-11-25  
[30] US (17/824,165) 2022-05-25



**Demandes canadiennes mises à la disponibilité du public**  
**19 novembre 2023 au 25 novembre 2023**

[21] **3,167,868**  
[13] A1

[51] **Int.Cl. B60P 7/02 (2006.01) B62D 33/04 (2006.01)**  
[25] EN  
[54] **MODULAR TRUCK CAP APPARATUS**  
[54] **APPAREIL DE COUVRE-CAISSE MODULAIRE**  
[72] FACCHINELLO, JEROME, US  
[72] MOSINGO, ROBERT, US  
[72] CARTER, CHAD, US  
[72] BECKER, ANTHONY, US  
[72] WISELY, ROBERT, US  
[71] EXTANG CORPORATION, US  
[22] 2022-07-15  
[41] 2023-11-20  
[30] US (17/749,210) 2022-05-20

[21] **3,170,766**  
[13] A1

[51] **Int.Cl. F16L 47/12 (2006.01) F16L 21/08 (2006.01) F16L 37/091 (2006.01) F16L 37/098 (2006.01)**  
[25] EN  
[54] **DOUBLE SIDED CONNECTOR WITH TOOLLESS CONNECTION**  
[54] **CONNECTEUR DOUBLE FACE A CONNEXION SANS OUTIL**  
[72] REISS, AUSTIN SUTTER, US  
[72] OKPIAIFO, JOHN IDEMUDIA, US  
[72] MEDENDORP, CAMERON MITCHEL, US  
[71] RB DISTRIBUTION, INC., US  
[22] 2022-08-19  
[41] 2023-11-24  
[30] US (17/752,058) 2022-05-24

[21] **3,178,012**  
[13] A1

[51] **Int.Cl. B02C 23/00 (2006.01) B02C 13/26 (2006.01) F16F 15/00 (2006.01)**  
[25] EN  
[54] **PULVERIZER WITH VIBRATION REDUCER**  
[54] **PULVERISATEUR AVEC MECANISME D'ATTENUATION DES VIBRATIONS**  
[72] LUTOSLAWSKI, JAREK, BM  
[72] ALDRIDGE, CLINT, BM  
[72] MUELLER, CHRIS, BM  
[71] TORXX KINETIC PULVERIZER LIMITED, BM  
[22] 2022-09-30  
[41] 2023-11-20  
[30] CA (3159525) 2022-05-20

[21] **3,184,107**  
[13] A1

[51] **Int.Cl. B62B 1/00 (2006.01) B60P 3/07 (2006.01) B62B 5/00 (2006.01) B62B 5/06 (2006.01) B62D 63/08 (2006.01)**  
[25] EN  
[54] **CUSTOM MADE TOW DOLLY**  
[54] **ROUES PORTEUSES PERSONNALISEES**  
[72] HARRISON, WILLIAM, CA  
[71] HARRISON, WILLIAM, CA  
[22] 2022-12-15  
[41] 2023-11-20  
[30] CA (618749949) 2022-05-20

[21] **3,184,560**  
[13] A1

[51] **Int.Cl. E01F 15/02 (2006.01) E01F 15/04 (2006.01)**  
[25] EN  
[54] **BARRIER TRANSITION FRAMEWORK**  
[54] **CADRE DE TRANSITION DE BARRIERE**  
[72] POWELL, BENJAMIN FRASER, CA  
[72] LONGSTREET, WILLIAM PRICE, US  
[72] ALBERSON, DEAN CLINTON, US  
[71] VANDORF BT1, INC., CA  
[22] 2022-12-22  
[41] 2023-11-19  
[30] US (63/343,828) 2022-05-19  
[30] US (18/087,480) 2022-12-22

[21] **3,191,735**  
[13] A1

[51] **Int.Cl. G01N 37/00 (2006.01)**  
[25] EN  
[54] **TEST DEVICE FOR ANALYTE IN A FLUID SAMPLE**  
[54] **DISPOSITIF D'ESSAI POUR UN ANALYTE DANS UN ECHANTILLON DE FLUIDE**  
[72] FANG, JIANQIU, CN  
[72] LEI, SIYU, CN  
[72] ZHANG, HUA, CN  
[71] ZHEJIANG ORIENT GENE BIOTECH CO., LTD., CN  
[22] 2023-03-03  
[41] 2023-11-23  
[30] CN (2022105647065) 2022-05-23  
[30] CN (2022106085309) 2022-05-31  
[30] GB (2208268.9) 2022-06-06  
[30] US (63/352,036) 2022-06-14

[21] **3,192,525**  
[13] A1

[51] **Int.Cl. G06F 3/04845 (2022.01) G06F 3/04815 (2022.01) G06Q 30/0601 (2023.01)**  
[25] EN  
[54] **SYSTEM AND METHOD FOR TANDEM MANIPULATION OF 3D OBJECTS IN ELECTRONIC USER INTERFACES**  
[54] **SYSTEME ET METHODE POUR LA MANIPULATION EN TANDEM D'OBJETS 3D DANS LES INTERFACES UTILISATEUR ELECTRONIQUES**  
[72] MASCHMEYER, RUSS, CA  
[72] PERERA JAYATUNGA, HETTIGE RAY, CA  
[71] SHOPIFY INC., CA  
[22] 2023-03-09  
[41] 2023-11-24  
[30] US (17/752,214) 2022-05-24

[21] **3,192,561**  
[13] A1

[51] **Int.Cl. B64C 25/52 (2006.01)**  
[25] EN  
[54] **TRAIN D'ATTERISSAGE A PATINS MUNI DE PATINETTES ANTI-ENFONCEMENT**  
[54] **SKID-TYPE LANDING GEAR EQUIPPED WITH ANTI-SINK SKIDS**  
[72] GENELOT, NICOLAS, FR  
[71] AIRBUS HELICOPTERS, FR  
[22] 2023-03-10  
[41] 2023-11-19  
[30] FR (2204776) 2022-05-19

[21] **3,193,500**  
[13] A1

[51] **Int.Cl. A63B 55/60 (2015.01)**  
[25] EN  
[54] **GOLF CART**  
[54] **CHARIOT DE GOLF**  
[72] ZHANG, SHENG, CN  
[71] NINGBO WENTAI SPORT EQUIPMENT CO., LTD., CN  
[22] 2023-03-20  
[41] 2023-11-20  
[30] CN (202221218099.9) 2022-05-20

**Canadian Applications Open to Public Inspection  
November 19, 2023 to November 25, 2023**

[21] **3,193,597**  
[13] A1

[51] **Int.Cl. A47J 31/40 (2006.01) A23L 33/15 (2016.01) A23L 33/16 (2016.01) A23L 2/52 (2006.01) B67D 1/00 (2006.01)**

[25] EN  
[54] **BEVERAGE CREATION DEVICE**  
[54] **DISPOSITIF DE CREATION DE BREUVAGE**

[72] MOHAMMADZADEH FADAKI, REZA, CA  
[72] IRANSHAHI, MEHRDAD, IR  
[72] REZAEI, KAZEM, IR  
[72] SOKHANVARAN, SIMA, IR  
[72] FALAHATINEZHAD, MOJTABA, IR  
[72] TABATABAEI NASRABADI, SAYEDSAJJAD, IR  
[71] MINFUSION INC., CA  
[22] 2023-03-21  
[41] 2023-11-25  
[30] US (17/824731) 2022-05-25

[21] **3,193,788**  
[13] A1

[51] **Int.Cl. G06F 3/04815 (2022.01) G06T 19/00 (2011.01) G06Q 30/0601 (2023.01)**

[25] EN  
[54] **AUGMENTED REALITY ENABLED DYNAMIC PRODUCT PRESENTATION**  
[54] **PRESENTATION DE PRODUIT DYNAMIQUE DANS LA REALITE AUGMENTEE**

[72] BEAUCHAMP, DANIEL, CA  
[72] DELGADO, BYRON LEONEL, CA  
[72] WADE, JONATHAN, CA  
[71] SHOPIFY INC., CA  
[22] 2023-03-22  
[41] 2023-11-25  
[30] US (17/824828) 2022-05-25

[21] **3,194,189**  
[13] A1

[51] **Int.Cl. F16C 3/02 (2006.01) B64C 27/54 (2006.01) F16C 7/00 (2006.01) F16F 1/48 (2006.01) G01L 3/04 (2006.01)**

[25] FR  
[54] **ELASTICALLY DEFORMABLE HINGE AND SYSTEM EQUIPPED WITH SUCH A HINGE**  
[54] **ARTICULATION DEFORMABLE ELASTIQUEMENT ET SYSTEME MUNI D'UNE TELLE ARTICULATION**

[72] JAUFFRET, LAURENT, FR  
[72] BONNET, PAUL, FR  
[72] VARGAS, FABIEN, FR  
[72] LAMBERT, CHRISTOPHE, FR  
[71] AIRBUS HELICOPTERS, FR  
[22] 2023-03-27  
[41] 2023-11-24  
[30] FR (2204960) 2022-05-24

[21] **3,195,927**  
[13] A1

[51] **Int.Cl. F16C 33/64 (2006.01) F03D 80/70 (2016.01) F16C 43/04 (2006.01)**

[25] EN  
[54] **METHOD FOR MANUFACTURING SLEWING RING BEARING COMPONENTS HAVING AN INTEGRAL STIFFENER**  
[54] **METHODE DE FABRICATION DE COMPOSANTS DE PALIER DE COURONNE D'ORIENTATION A RAIDISSEUR INTEGRE**

[72] PATHUVOTH, DHANESH CHANDRASHEKAR, IN  
[72] PAL, SUJAN KUMAR, IN  
[71] GENERAL ELECTRIC RENOVABLES ESPANA S.L., ES  
[22] 2023-04-12  
[41] 2023-11-20  
[30] US (17/749848) 2022-05-20

[21] **3,196,031**  
[13] A1

[51] **Int.Cl. A47J 37/07 (2006.01) H04W 80/00 (2009.01) F24C 15/00 (2006.01) G05B 15/00 (2006.01)**

[25] EN  
[54] **SYSTEMS AND METHODS FOR CONTROLLING GRILLING APPLIANCES VIA EDGE COMPUTING PLATFORMS**  
[54] **SYSTEMES ET METHODES POUR CONTROLER LES APPAREILS DE GRILLAGE AU MOYEN DE PLATEFORMES EN PERIPHERIE DE RESEAU**

[72] MINOR, RYAN, US  
[72] HARTLIEB, MARK, US  
[72] MONACO, FRANK, US  
[72] VALLA MALLA, PERINI DIVYA D., US  
[71] DANSONS US, LLC, US  
[22] 2023-04-13  
[41] 2023-11-25  
[30] US (63/345797) 2022-05-25  
[30] US (17/981710) 2022-11-07

[21] **3,197,213**  
[13] A1

[51] **Int.Cl. G06Q 20/40 (2012.01) G06Q 20/12 (2012.01) G06Q 40/02 (2023.01) G06F 16/21 (2019.01) G06N 20/00 (2019.01) G06F 18/213 (2023.01)**

[25] EN  
[54] **SYSTEM AND METHOD FOR AUTOMATED FEATURE GENERATION AND USAGE IN IDENTITY DECISION MAKING**  
[54] **SYSTEME ET METHODE POUR LA GENERATION DE FONCTION AUTOMATIQUE ET UTILISATION DANS LA PRISE DE DECISION SUR L'IDENTITE**

[72] ABREU, PABLO YSRRAEL, US  
[72] LIU, DAVID, US  
[72] MANCHIRAJU, VINAY ABHISHEK, US  
[72] TOURRET, JOFFREY, US  
[72] HAN, SUNHYOUNG, US  
[72] HUGHES, ELLIOT, US  
[71] SOCURE, INC., US  
[22] 2023-04-17  
[41] 2023-11-20  
[30] US (17/749,645) 2022-05-20

**Demandes canadiennes mises à la disponibilité du public**  
**19 novembre 2023 au 25 novembre 2023**

[21] **3,197,222**  
[13] A1

[51] **Int.Cl. F28D 1/00 (2006.01) F16M 1/00 (2006.01)**  
[25] EN  
[54] **AIR-COOLED HEAT EXCHANGER WITH X-BRACE DRIVE**  
[54] **ECHANGEUR DE CHALEUR REFROIDI PAR AIR COMPRENANT UN MECANISME D'ENTRAINEMENT SUR SUPPORT EN X**  
[72] LANPHIER, MICHAEL, US  
[72] WITCHEY, RYAN, US  
[72] SMITH, JAMES, US  
[71] HUDSON PRODUCTS CORPORATION, US  
[22] 2023-04-17  
[41] 2023-11-20  
[30] US (63/344,254) 2022-05-20

[21] **3,197,599**  
[13] A1

[51] **Int.Cl. A22C 29/02 (2006.01)**  
[25] EN  
[54] **CRUSTACEAN BUTCHERING APPARATUS**  
[54] **APPAREIL D'ABATTAGE DE CRUSTACES**  
[72] FOGARTY, TIM, CA  
[72] DEVITO, JOEL, CA  
[71] AREA52 LTD, CA  
[22] 2023-04-20  
[41] 2023-11-20  
[30] US (63/344,101) 2022-05-20

[21] **3,197,608**  
[13] A1

[51] **Int.Cl. B64C 13/24 (2006.01) B64D 45/00 (2006.01) G07C 11/00 (2006.01)**  
[25] EN  
[54] **HIGH LIFT SKEW SYSTEM**  
[54] **SYSTEME DE DETECTION D'ASYMETRIE A POSITION HAUTE**  
[72] DAVIES, STEPHEN, GB  
[71] GOODRICH ACTUATION SYSTEMS LIMITED, GB  
[22] 2023-04-20  
[41] 2023-11-25  
[30] EP (22275067.1) 2022-05-25

[21] **3,197,770**  
[13] A1

[51] **Int.Cl. A61B 8/00 (2006.01)**  
[25] EN  
[54] **GRIP APPARATUS FOR ULTRASOUND IMAGING TRANSDUCER DEVICE**  
[54] **APPAREIL DE PREHENSION POUR UN TRANSDUCTEUR D'IMAGERIE PAR ULTRASONS**  
[72] POLLOCK, MARTIN JOEL, CA  
[72] KITCHEN, BRYAN CLINTON, CA  
[71] POLLOCK, MARTIN JOEL, CA  
[71] KITCHEN, BRYAN CLINTON, CA  
[22] 2023-04-24  
[41] 2023-11-19  
[30] US (63/343,770) 2022-05-19

[21] **3,197,881**  
[13] A1

[51] **Int.Cl. C08F 220/18 (2006.01) C10M 107/28 (2006.01) C10M 145/14 (2006.01)**  
[25] EN  
[54] **ACRYLATE-OLEFIN COPOLYMERS AS HIGH VISCOSITY BASE FLUIDS**  
[54] **COPOLYMERES D'ACRYLATE-OLEFINE COMME FLUIDES DE BASE DE GRANDE VISCOSITE**  
[72] SCHWEISSINGER, EMILY CLARE, DE  
[72] MAIER, STEFAN KARL, DE  
[72] NOTHDURFT, KATJA, DE  
[72] GROSS-ONNEBRINK, YVONNE, DE  
[72] JANSSEN, DIETER, DE  
[72] PLETSCH, HOLGER, DE  
[72] HILF, STEFAN, DE  
[72] KLEINSCHMIDT, DENISE, DE  
[72] BABIK, SEBASTIAN, DE  
[71] EVONIK OPERATIONS GMBH, DE  
[22] 2023-04-25  
[41] 2023-11-24  
[30] EP (EP22174980) 2022-05-24

[21] **3,197,908**  
[13] A1

[51] **Int.Cl. F04D 13/10 (2006.01) E21B 43/12 (2006.01) F04D 15/00 (2006.01)**  
[25] EN  
[54] **ELECTRIC SUBMERSIBLE PUMP ASSEMBLIES**  
[54] **ASSEMBLAGES DE POMPES SUBMERSIBLES ELECTRIQUES**  
[72] GARRETT, DAVID, US  
[72] SECZON, LUIS, US  
[72] SCARSDALE, KEVIN, US  
[71] GARRETT, DAVID, US  
[71] SECZON, LUIS, US  
[71] SCARSDALE, KEVIN, US  
[22] 2023-04-25  
[41] 2023-11-25  
[30] US (17/824,892) 2022-05-25

[21] **3,197,910**  
[13] A1

[51] **Int.Cl. A61K 8/02 (2006.01) A61K 8/73 (2006.01) A61K 8/85 (2006.01) A61Q 19/08 (2006.01)**  
[25] EN  
[54] **PLA BEADS, DERMAL FILLER INCLUDING THE BEADS, APPARATUS INCLUDING THE FILLER AND USE OF THE APPARATUS**  
[54] **GRANULES D'ACIDE POLYLACTIQUE, CHARGE DERMIQUE COMPRENANT LES GRANULES, APPAREIL COMPRENANT LA CHARGE ET UTILISATION DE L'APPAREIL**  
[72] LEE, TIMOTHY, CA  
[72] MOGHADAM, SHADI, CA  
[72] IGHANIAN, KHASHA, CA  
[72] KHOSHBIN, ARIO, CA  
[71] PROLLENMUM MEDICAL TECHNOLOGIES, INC., CA  
[22] 2023-04-25  
[41] 2023-11-25  
[30] US (63/345,742) 2022-05-25

**Canadian Applications Open to Public Inspection  
November 19, 2023 to November 25, 2023**

[21] **3,197,978**  
[13] A1

[51] **Int.Cl. B62D 33/04 (2006.01) B60J 10/90 (2016.01) B60J 7/10 (2006.01) B60P 7/02 (2006.01) B62D 33/077 (2006.01)**

[25] EN  
[54] **MODULAR TRUCK CAP APPARATUS**  
[54] **APPAREIL DE COUVRE-CAISSE MODULAIRE**

[72] FACCHINELLO, JEROME, US  
[72] MOSINGO, ROBERT, US  
[72] CARTER, CHAD, US  
[72] BECKER, ANTHONY, US  
[72] WISELY, ROBERT, US  
[72] DELANEY, DANIEL, US  
[71] EXTANG CORPORATION, US  
[22] 2023-04-26  
[41] 2023-11-20  
[30] US (17/749,210) 2022-05-20  
[30] US (17/968,094) 2022-10-18

[21] **3,197,995**  
[13] A1

[51] **Int.Cl. F04C 2/107 (2006.01)**

[25] FR  
[54] **PROGRESSING CAVITY PUMP AND PUMPING DEVICE**  
[54] **POMPE A CAVITES PROGRESSIVES ET DISPOSITIF DE POMPAGE**

[72] RICHARDEAU, CHRISTOPHE, FR  
[72] GROS, DOMINIQUE, FR  
[72] JOULAUD, THOMAS, FR  
[71] PCM TECHNOLOGIES, FR  
[22] 2023-04-26  
[41] 2023-11-25  
[30] FR (2205071) 2022-05-25

[21] **3,198,050**  
[13] A1

[51] **Int.Cl. B60T 7/20 (2006.01) B60T 8/17 (2006.01) B60T 8/60 (2006.01) B60T 10/00 (2006.01)**

[25] EN  
[54] **BRAKING SYSTEM WITH REDUNDANT TRAILER COMMUNICATION**  
[54] **SYSTEME DE FREINAGE A COMMUNICATION REDONDANTE AVEC LA REMORQUE**

[72] HURLEY, RYAN S., US  
[71] BENDIX COMMERCIAL VEHICLE SYSTEMS LLC, US  
[22] 2023-04-26  
[41] 2023-11-24  
[30] US (17/752433) 2022-05-24

[21] **3,198,535**  
[13] A1

[51] **Int.Cl. A41D 13/008 (2006.01) A41D 17/00 (2006.01)**

[25] EN  
[54] **GAITER WITH COUPLING**  
[54] **GUETRE ET RACCORD**

[72] ANDERSEN, JONATHAN I., US  
[71] SNAP-ON INCORPORATED, US  
[22] 2023-05-03  
[41] 2023-11-19  
[30] US (17/748,801) 2022-05-19

[21] **3,199,035**  
[13] A1

[51] **Int.Cl. H02J 3/46 (2006.01) H02B 7/00 (2006.01) H02B 13/00 (2006.01) H02J 11/00 (2006.01)**

[25] EN  
[54] **COORDINATED GENERATION, TRANSMISSION, AND UTILIZATION OF ELECTRIC POWER AMONG GEOGRAPHICALLY REMOTE LOCATIONS**  
[54] **GENERATION, TRANSMISSION ET UTILISATION COORDONNEES DE PUISSANCE ELECTRIQUE ENTRE DES EMBLEMEMENTS ELOIGNES GEOGRAPHIQUEMENT**

[72] OUGH, NATHAN, US  
[72] WISE, LESLIE MICHAEL, US  
[71] VOLTAGRID LLC, US  
[22] 2023-05-05  
[41] 2023-11-19  
[30] US (17/748,543) 2022-05-19

[21] **3,199,148**  
[13] A1

[51] **Int.Cl. E04G 19/00 (2006.01) B66F 11/00 (2006.01) E01D 21/00 (2006.01) E04B 1/35 (2006.01) E04G 21/16 (2006.01)**

[25] EN  
[54] **SYSTEM AND METHOD FOR CONCRETE FORMING**  
[54] **SYSTEME ET METHODE DE COFFRAGE DE BETON**

[72] GOMEZ ROJO, RUBEN, ES  
[72] HIPOLITO FERNANDEZ, CARLOS, ES  
[72] CASTUERA PINTO, DAVID, ES  
[72] TAPIADOR GUTIERREZ, FERNANDO, ES  
[71] TECOZAM USA CORP., US  
[71] GESTION Y ACTIVIDADES SECOZAM, S.L., ES  
[22] 2023-05-09  
[41] 2023-11-25  
[30] US (17/824,221) 2022-05-25

[21] **3,199,152**  
[13] A1

[25] EN  
[54] **COMPRESSION LOADED SLIT SHAPED WAVEGUIDE**  
[54] **GUIDE D'ONDES EN FENTE POSSEDANT UNE CHARGE DE COMPRESSION**

[72] ANDERSON, KASPER, US  
[71] ROKU, INC., US  
[22] 2023-05-09  
[41] 2023-11-19  
[30] US (17/664,099) 2022-05-19  
[30] US (17/816,752) 2022-08-02

**Demandes canadiennes mises à la disponibilité du public**  
**19 novembre 2023 au 25 novembre 2023**

[21] **3,199,265**  
[13] A1

[51] **Int.Cl. A63F 13/46 (2014.01) A63F 13/816 (2014.01) G16H 50/30 (2018.01)**

[25] EN

[54] **SYSTEM AND METHOD FOR EVALUATING USER PERFORMANCE ACROSS DIFFERENT ACTIVITIES**

[54] **SYSTEME ET METHODE D'EVALUATION DU RENDEMENT DE L'UTILISATEUR DANS DIFFERENTES ACTIVITES**

[72] PADDOCK, CORY DAVID, CA

[72] KNIGHT, JEFFREY THOMPSON, CA

[71] ORPYX MEDICAL TECHNOLOGIES INC., CA

[22] 2023-05-11

[41] 2023-11-24

[30] US (63/345,139) 2022-05-24

[21] **3,199,408**  
[13] A1

[51] **Int.Cl. H02H 3/04 (2006.01) H01H 85/20 (2006.01) H01H 85/30 (2006.01) H02J 13/00 (2006.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR MONITORING ELECTRICAL FUSES**

[54] **SYSTEMES ET METHODES DE SURVEILLANCE DE FUSIBLES ELECTRIQUES**

[72] SCHMITT, THOMAS E., US

[72] NARCISO, VENANCIO ESTEBAN, MX

[72] RAMOS, ARTURO GUTIERREZ, MX

[72] LOPEZ, JACOB NUNEZ, MX

[71] EATON INTELLIGENT POWER LIMITED, IE

[22] 2023-05-12

[41] 2023-11-20

[30] US (17/749570) 2022-05-20

[21] **3,199,410**  
[13] A1

[51] **Int.Cl. A61F 2/46 (2006.01) A61B 17/56 (2006.01) A61F 2/38 (2006.01)**

[25] EN

[54] **TIBIAL DUAL STYLUS INSTRUMENT HAVING WIDE CONVEX STYLUS TIPS AND COMPONENTS THEREOF**

[54] **INSTRUMENT POUR LE TIBIA A DEUX STYLETS, Y COMPRIS DE LARGES POINTES CONVEXES DE STYLET ET DES COMPOSANTS CONNEXES**

[72] STEENSEN, ROBERT N., US

[72] HARRIS, BRIAN R., US

[72] DANG, DUY Q., US

[71] MICROPORT ORTHOPEDICS HOLDINGS INC., US

[22] 2023-05-12

[41] 2023-11-20

[30] US (18/307208) 2023-04-26

[30] US (63/344113) 2022-05-20

[21] **3,199,414**  
[13] A1

[51] **Int.Cl. E02F 9/26 (2006.01) B66C 13/46 (2006.01) E02F 3/36 (2006.01)**

[25] EN

[54] **MACHINE WITH A BOOM LINK AND POSITION SENSOR**

[54] **MACHINE COMPRENANT UNE BIELLETTE DE FLECHE ET UN CAPTEUR DE POSITION**

[72] ARMSTRONG, VINCENT A., US

[72] CALLAWAY, JOSHUA D., US

[72] BRIGHT, CHRISTOPHER E., US

[72] TERRY, BENJAMIN J., US

[72] LAYKO, MICHAEL C., US

[71] CATERPILLAR, INC., US

[22] 2023-05-12

[41] 2023-11-25

[30] US (17/824410) 2022-05-25

[21] **3,199,492**  
[13] A1

[25] EN

[54] **SYSTEM AND METHOD FOR DETECTING MALICIOUS ACTIVITY IN A USER EQUIPMENT POSITIONING SIGNAL USING A POSITION COMPARATOR**

[54] **SYSTEME ET METHODE DE DETECTION DES ACTIVITES MALVEILLANTES DANS UN SIGNAL DE POSITIONNEMENT D'EQUIPEMENT UTILISATEUR AU MOYEN D'UN COMPAREUR DE POSITIONS**

[72] MUMTAZ, ARSLAN, PK

[72] NOMAN, ZAIN, PK

[72] RAMZAN, RASHAD, PK

[72] FAROOQ, MUDDASSAR, PK

[72] STANWOOD, KENNETH, US

[71] WI-LAN RESEARCH INC., US

[22] 2023-05-15

[41] 2023-11-19

[30] US (63/343,785) 2022-05-19

[21] **3,199,609**  
[13] A1

[51] **Int.Cl. A01B 39/20 (2006.01) A01B 23/04 (2006.01) A01B 39/02 (2006.01) A01M 21/02 (2006.01)**

[25] EN

[54] **SOIL CULTIVATOR**

[54] **CULTIVATEUR DE SOL**

[72] RATH JUN., ENGELBERT, DE

[71] RATH JUN., ENGELBERT, DE

[22] 2023-05-16

[41] 2023-11-24

[30] DE (DE 10 2022 113 040.1) 2022-05-24

**Canadian Applications Open to Public Inspection  
November 19, 2023 to November 25, 2023**

[21] **3,199,615**  
[13] A1

[51] **Int.Cl. F21V 21/03 (2006.01) E04B 9/00 (2006.01) F21S 8/04 (2006.01) F21V 33/00 (2006.01)**

[25] EN

[54] **LIGHTING FIXTURE AND CEILING SYSTEM WITH INTEGRATED LIGHT FIXTURE**

[54] **APPAREIL D'ECLAIRAGE ET SYSTEME DE PLAFOND A APPAREIL D'ECLAIRAGE INTEGRE**

[72] HUEBNER, FRITZ, US  
[72] VENNIX, BRIAN, US  
[72] MOSLEY, DAVID, US  
[72] BOSCH, CARL, US  
[71] PLASCORE, INC., US  
[22] 2023-05-16  
[41] 2023-11-24  
[30] US (17/752,116) 2022-05-24

[21] **3,199,643**  
[13] A1

[51] **Int.Cl. B65F 1/14 (2006.01) B30B 1/32 (2006.01) B30B 9/00 (2006.01) B30B 15/16 (2006.01) B65F 3/14 (2006.01)**

[25] EN

[54] **REFUSE COMPRESSION APPARATUS AND A METHOD FOR OPERATING REFUSE COMPRESSION APPARATUS**

[54] **APPAREIL DE COMPRESSION DE DECHETS ET METHODE D'EXPLOITATION**

[72] STRAMBRO, PETER, FI  
[72] HUMMELGARD, KRISTIAN, FI  
[71] AB NARPES TRA & METALL - OY NARPION PUU JA METALLI, FI  
[22] 2023-05-15  
[41] 2023-11-23  
[30] US (17/751,292) 2022-05-23

[21] **3,199,801**  
[13] A1

[51] **Int.Cl. A47B 3/00 (2006.01) A47B 5/00 (2006.01) B64D 11/00 (2006.01)**

[25] FR

[54] **SUPPORT DEVICE FOR AN INTERIOR ARRANGEMENT OF AN AIRCRAFT CAR, ASSOCIATED ASSEMBLY AND METHOD**

[54] **DISPOSITIF DE SUPPORT POUR UN ENSEMBLE D'AMENAGEMENT INTERIEUR D'UNE CABINE D'AERONEF, ENSEMBLE ET PROCEDE ASSOCIES**

[72] BILLON, JEAN-REMI, FR  
[72] CAPISTRAN, OLIVIER, US  
[72] FOOS, QUENTIN, FR  
[72] LEFLOCH, GREGORY, US  
[71] DASSAULT AVIATION, FR  
[22] 2023-05-18  
[41] 2023-11-25  
[30] FR (FR 22 05022) 2022-05-25

[21] **3,199,818**  
[13] A1

[51] **Int.Cl. A45D 8/34 (2006.01) A44C 25/00 (2006.01)**

[25] EN

[54] **HAIR BRAID ACCESSORY WITH BEAD STOPPER**

[54] **ACCESSOIRE DE TRESSE DE CHEVEUX AVEC DISPOSITIF DE FIXATION DES PERLES**

[72] SINCLAIR, MELLISA, CA  
[71] SINCLAIR, MELLISA, CA  
[22] 2023-05-18  
[41] 2023-11-24  
[30] US (63/345,234) 2022-05-24

[21] **3,199,821**  
[13] A1

[25] EN

[54] **LOW DENSITY GYPSUM PANEL**

[54] **PANNEAU DE GYPSE DE FAIBLE DENSITE**

[72] IYER, R. G., US  
[72] MOSER, TERRY, US  
[72] BUSCHE, BRADLEY J., US  
[72] STAV, ELI, US  
[72] BLADES, MICHAEL N., US  
[72] BAILEY, JOSEPH J., US  
[72] ROBERTSON, CRAIG, US  
[72] HOLLOMAN, DAISHA, US  
[71] GOLD BOND BUILDING PRODUCTS, LLC, US  
[22] 2023-05-18  
[41] 2023-11-19  
[30] US (63/343,609) 2022-05-19

[21] **3,199,832**  
[13] A1

[51] **Int.Cl. E02F 3/92 (2006.01) E02F 3/40 (2006.01) E02F 7/10 (2006.01)**

[25] EN

[54] **DREDGE SYSTEM**

[54] **SYSTEME DE DRAGUE**

[72] WAHLGREN, DANIEL, US  
[72] GONZALEZ, ROBERTO, US  
[71] EDDY PUMP CORPORATION, US  
[22] 2023-05-16  
[41] 2023-11-19  
[30] US (63/343,678) 2022-05-19  
[30] US (18/196,201) 2023-05-11

[21] **3,199,836**  
[13] A1

[51] **Int.Cl. E04B 2/84 (2006.01) E04B 1/16 (2006.01) E04C 2/06 (2006.01)**

[25] EN

[54] **WALL AND METHOD**

[54] **MUR ET METHODE**

[72] BEHLING, JOSHUA STEPHEN, US  
[71] STRATA PRODUCTS WORLDWIDE, LLC, US  
[22] 2023-05-18  
[41] 2023-11-20  
[30] US (63/344,508) 2022-05-20

**Demandes canadiennes mises à la disponibilité du public**  
**19 novembre 2023 au 25 novembre 2023**

[21] **3,199,867**  
[13] A1

[51] **Int.Cl. A22C 29/02 (2006.01)**  
[25] EN  
[54] **CRUSTACEAN BUTCHERING APPARATUS**  
[54] **APPAREIL D'ABATTAGE DE CRUSTACES**  
[72] FORGARTY, TIM, CA  
[72] DEVITO, JOEL, CA  
[71] AREA52 LTD, CA  
[22] 2023-05-18  
[41] 2023-11-20  
[30] US (63/344,101) 2022-05-20

[21] **3,199,902**  
[13] A1

[51] **Int.Cl. F21S 10/00 (2006.01) A63J 5/02 (2006.01) F21L 2/00 (2006.01) F21V 21/06 (2006.01) F21V 21/116 (2006.01) F21V 33/00 (2006.01)**  
[25] EN  
[54] **PORTABLE MULTI-FUNCTION LIGHTING DEVICE WITH BUILT-IN MASTER-SLAVE CONTROLLER AND AN INTEGRATED LIGHTING SYSTEM AND METHOD USING THE PORTABLE MULTI-FUNCTION LIGHTING DEVICE**  
[54] **DISPOSITIF D'ECLAIRAGE POLYVALENT PORTATIF COMPRENANT UNE COMMANDE MAITRE-ESCLAVE INTEGREE ET UN SYSTEME D'ECLAIRAGE INTEGRE ET METHODE D'UTILISATION**  
[72] REISS, ALLAN B., US  
[72] JONES, RAGLAN O., US  
[72] JIAGEN, LI, CN  
[71] CHAUVET & SONS, LLC, US  
[22] 2023-05-18  
[41] 2023-11-20  
[30] US (63/344257) 2022-05-20  
[30] US (18/315814) 2023-05-11

[21] **3,199,930**  
[13] A1

[51] **Int.Cl. H02J 50/00 (2016.01) H02J 50/10 (2016.01) H02J 50/20 (2016.01) H02J 50/90 (2016.01) H02J 15/00 (2006.01)**  
[25] EN  
[54] **SYSTEMS, TOOL STORAGE UNITS, AND METHODS FOR PROVIDING ELECTRICAL POWER**  
[54] **SYSTEMES, MEMOIRES D'OUTIL ET METHODES D'ALIMENTATION ELECTRIQUE**  
[72] GABBAY, NICHOLAS A., US  
[72] KUTER-ARNEBECK, OTTOLEO, US  
[71] SNAP-ON INCORPORATED, US  
[22] 2023-05-18  
[41] 2023-11-20  
[30] US (17/750,285) 2022-05-20

[21] **3,199,947**  
[13] A1

[51] **Int.Cl. C12P 19/18 (2006.01) A23C 9/12 (2006.01) C07H 3/06 (2006.01) C12N 1/20 (2006.01) C12N 9/10 (2006.01) C12P 19/00 (2006.01)**  
[25] EN  
[54] **BIOACTIVE PROCESS FOR BIOGENERATION OF FUNCTIONAL CARBOHYDRATES FROM DAIRY BY-PRODUCTS**  
[54] **PROCEDE BIOACTIF POUR LA BIOGENERATION DE GLUCIDES FONCTIONNELS DE PRODUITS DERIVES DU LAIT**  
[72] KARBOUNE, SALWA, CA  
[72] BAHLOWAN, RAMI, CA  
[72] WONG MIN, MURIEL YOK KAM, MU  
[71] THE ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING / MCGILL UNIVERSITY, CA  
[22] 2023-05-18  
[41] 2023-11-19  
[30] US (63/364,975) 2022-05-19

[21] **3,199,955**  
[13] A1

[51] **Int.Cl. F25B 30/02 (2006.01) F24D 3/18 (2006.01) F24D 5/12 (2006.01) F24D 15/04 (2006.01) F25B 7/00 (2006.01)**  
[25] EN  
[54] **HEAT PUMP SYSTEM FOR COLD CLIMATE APPLICATIONS**  
[54] **SYSTEME DE THERMOPOMPE POUR DES APPLICATIONS DANS LES CLIMATS FROIDS**  
[72] AGELIN-CHAABAN, MARTIN, CA  
[72] BESADA, WAHID, CA  
[72] ADDO-BINNEY, BISMARCK, CA  
[72] WILLIAMSON, SHELDON, CA  
[72] ROSSI, LORENZO, CA  
[71] WORKSPORT LTD., CA  
[22] 2023-05-19  
[41] 2023-11-19  
[30] US (63/365,008) 2022-05-19

[21] **3,199,968**  
[13] A1

[51] **Int.Cl. G06N 3/0895 (2023.01) G06N 3/02 (2006.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR SELF-SUPERVISED TIME-SERIES REPRESENTATION LEARNING**  
[54] **SYSTEMES ET METHODES POUR L'APPRENTISSAGE DE REPRESENTATIONS EN SERIE CHRONOLOGIQUE A SUPERVISION AUTONOME**  
[72] TUNG, FREDERICK, CA  
[72] PISHDAD, LEILA, CA  
[72] IAJIMORADLOU, AINAZ, CA  
[72] KARPUSHA, MARYNA, CA  
[71] ROYAL BANK OF CANADA, CA  
[22] 2023-05-19  
[41] 2023-11-20  
[30] US (63/344,094) 2022-05-20

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[21] **3,200,028**  
[13] A1

[51] **Int.Cl. A61C 7/14 (2006.01) A61C 7/02 (2006.01)**  
[25] EN  
[54] **SYSTEM FOR TRANSFERRING ORTHODONTIC TOOLS, KIT OF PARTS COMPRISING THE SYSTEM FOR TRANSFERRING ORTHODONTIC TOOLS AND THE USE OF THE SYSTEM AND OF THE KIT OF PARTS**  
[54] **SYSTEME DE TRANSFERT D'OUTILS ORTHODONTIQUES, TROUSSE DE PIECES COMPRENANT LEDIT SYSTEME ET UTILISATION DU SYSTEME ET DE LA TROUSSE DE PIECES**  
[72] KLEE, FELIX, DE  
[72] MEHRKAM, BEHRANG, DE  
[71] FACHLABOR DR. W. KLEE FUR GRAZILE KIEFERORTHOPADIE GMBH, DE  
[22] 2023-05-19  
[41] 2023-11-20  
[30] EP (22174621.7) 2022-05-20

[21] **3,200,035**  
[13] A1

[51] **Int.Cl. G06F 1/20 (2006.01) H05K 7/20 (2006.01)**  
[25] EN  
[54] **HEAT RECOVERY FROM MULTIPLE LAYERS OF COMPUTER COMPONENTS**  
[54] **RECUPERATION DE CHALEUR DE MULTIPLES COUCHES DE COMPOSANTS D'ORDINATEUR**  
[72] SULLIVAN, COLIN PATRICK JAMES, CA  
[72] TARDIF, ALEXANDRE DAVID JAMES, CA  
[71] MINTGREEN BLOCKCHAIN INNOVATION CORP., CA  
[22] 2023-05-19  
[41] 2023-11-20  
[30] US (63/365,065) 2022-05-20

[21] **3,200,039**  
[13] A1

[51] **Int.Cl. F24H 9/1809 (2022.01) F25D 31/00 (2006.01) H01L 23/473 (2006.01) H02K 9/19 (2006.01)**  
[25] EN  
[54] **HEAT RECOVERY FROM COMPUTER COMPONENTS**  
[54] **RECUPERATION DE CHALEUR DE COMPOSANTS D'ORDINATEUR**  
[72] SULLIVAN, COLIN PATRICK JAMES, CA  
[72] TARDIF, ALEXANDRE DAVID JAMES, CA  
[72] THAPAR, ROHAN, CA  
[71] MINTGREEN BLOCKCHAIN INNOVATION CORP., CA  
[22] 2023-05-19  
[41] 2023-11-20  
[30] US (63/365,059) 2022-05-20

[21] **3,200,062**  
[13] A1

[25] EN  
[54] **SYSTEM AND METHOD FOR DELIVERY ELEMENT SUPPORT**  
[54] **SYSTEME ET METHODE POUR UN SUPPORT D'ELEMENT DE DISTRIBUTION**  
[72] HESS, KRISTOFFER, CA  
[72] TURNER, MICHAEL S., CA  
[71] MELITRON CORPORATION, CA  
[22] 2023-05-19  
[41] 2023-11-19  
[30] US (63/343,762) 2022-05-19

[21] **3,200,107**  
[13] A1

[51] **Int.Cl. E04G 3/28 (2006.01) E04G 5/10 (2006.01) E04G 5/14 (2006.01) E04G 7/00 (2006.01)**  
[25] EN  
[54] **MOBILE SCAFFOLD FOR A RACKING SYSTEM AND RACKING SYSTEM COMPRISING A MOBILE SCAFFOLD**  
[54] **ECHAFAUDAGE MOBILE POUR UN SYSTEME D'ETAGERE ET SYSTEME D'ETAGERE COMPRENANT UN ECHAFAUDAGE MOBILE**  
[72] BELANGER, YVES, CA  
[71] MONTEL INC., CA  
[22] 2023-05-19  
[41] 2023-11-23  
[30] US (63/344,748) 2022-05-23

[21] **3,200,108**  
[13] A1

[51] **Int.Cl. F25B 41/20 (2021.01) F24F 11/41 (2018.01) F24D 19/10 (2006.01) F25B 47/02 (2006.01) F25B 49/02 (2006.01)**  
[25] EN  
[54] **HEAT PUMP SYSTEMS AND METHODS WITH FROST MITIGATION**  
[54] **SYSTEMES DE THERMOPOMPE ET METHODES D'ATTENUATION DU GIVRE**  
[72] SMITH, JEREMY RYAN, US  
[72] MARTIN, THOMAS JOHN, US  
[71] JOHNSON CONTROLS TYCO IP HOLDINGS LLP, US  
[22] 2023-05-19  
[41] 2023-11-19  
[30] US (63/343864) 2022-05-19  
[30] US (18/199139) 2023-05-18

[21] **3,200,116**  
[13] A1

[51] **Int.Cl. F25C 1/00 (2006.01)**  
[25] EN  
[54] **ICE MAKER**  
[54] **MACHINE A FAIRE DE LA GLACE**  
[72] CHEN, LI, CN  
[72] LU, CHANGHUI, CN  
[71] GUANGZHOU ARGION ELECTRIC APPLIANCE CO., LTD., CN  
[22] 2023-05-20  
[41] 2023-11-20  
[30] CN (202210566597.0) 2022-05-20

[21] **3,200,128**  
[13] A1

[51] **Int.Cl. B62D 25/24 (2006.01) B60R 7/00 (2006.01) B62D 55/07 (2006.01)**  
[25] EN  
[54] **OFF-ROAD VEHICLE WITH FRONT CARGO STORAGE**  
[54] **VEHICULE HORS ROUTE COMPRENANT UN ESPACE DE RANGEMENT AVANT**  
[72] BLOUIN, CHARLES, CA  
[72] LECALONNEC, MORAN, CA  
[72] MORA, SERGIO, CA  
[72] SOBACO, ENGUERAN, CA  
[71] TAIGA MOTORS INC., CA  
[22] 2023-05-23  
[41] 2023-11-25  
[30] US (63/345,665) 2022-05-25



**Demandes canadiennes mises à la disponibilité du public**  
**19 novembre 2023 au 25 novembre 2023**

[21] **3,200,143**  
[13] A1

[51] **Int.Cl. A01D 34/135 (2006.01) A01D 34/30 (2006.01) A01D 41/06 (2006.01) A01D 43/06 (2006.01)**

[25] EN

[54] **CUTTING UNIT WITH DOUBLE KNIFE SYSTEM AND MOVABLE SLIDING SURFACE**

[54] **UNITE DE COUPE COMPRENANT UN SYSTEME A DEUX COUTEAUX ET UNE SURFACE DE GLISSEMENT MOBILE**

[72] BROX, CHRISTIAN, DE

[72] WEBERMANN, DIRK, DE

[72] SUDHUES, STEFFEN, DE

[72] POKRIEFKE, MICHAEL, DE

[71] CARL GERINGHOFF GMBH & CO. KOMMANDITGESELLSCHAFT, DE

[22] 2023-05-19

[41] 2023-11-20

[30] DE (10 2022 112 817.2) 2022-05-20

[21] **3,200,160**  
[13] A1

[51] **Int.Cl. A01D 34/135 (2006.01) A01D 34/24 (2006.01) A01D 34/30 (2006.01) A01D 41/06 (2006.01) A01D 43/06 (2006.01)**

[25] EN

[54] **CUTTING UNIT WITH DOUBLE KNIFE SYSTEM AND MOVABLE SLIDING SURFACE**

[54] **UNITE DE COUPE COMPRENANT UN SYSTEME A DEUX COUTEAUX ET UNE SURFACE DE GLISSEMENT MOBILE**

[72] BROX, CHRISTIAN, DE

[72] WEBERMANN, DIRK, DE

[72] SUDHUES, STEFFEN, DE

[72] POKRIEFKE, MICHAEL, DE

[71] CARL GERINGHOFF GMBH & CO. KOMMANDITGESELLSCHAFT, DE

[22] 2023-05-19

[41] 2023-11-20

[30] DE (10 2022 112 818.0) 2022-05-20

[21] **3,200,183**  
[13] A1

[51] **Int.Cl. E04B 2/26 (2006.01) B29C 44/18 (2006.01) E04B 1/74 (2006.01)**

[25] EN

[54] **POUR IN PLACE FOAM INSULATION FOR BUILDING COMPONENTS**

[54] **ISOLATION CELLULAIRE VERSEE EN PLACE POUR DES ELEMENTS DE CONSTRUCTION**

[72] MIKS, KATHRYN, US

[72] FAY, RALPH MICHAEL, US

[72] ZHAO, YUSHENG, US

[72] CHARBONNEAU, CHANEL, US

[71] JOHNS MANVILLE, US

[22] 2023-05-24

[41] 2023-11-24

[30] US (17/752,422) 2022-05-24

[21] **3,200,189**  
[13] A1

[25] EN

[54] **MULTI-STAGE DIGITAL CONVERTERS**

[54] **CONVERTISSEURS NUMERIQUES A ETAGES MULTIPLES**

[72] WEI, JEFF, CA

[72] FANKHAUSER, ERIC, CA

[72] SUN, XIAOBING, CA

[71] EVERTZ MICROSYSTEMS LTD., CA

[22] 2023-05-23

[41] 2023-11-24

[30] US (63/345,224) 2022-05-24

[21] **3,200,214**  
[13] A1

[51] **Int.Cl. B29C 45/14 (2006.01)**

[25] EN

[54] **METAL THERMOPLASTIC SANDWICH OVERMOLD**

[54] **SURMOULAGE EN SANDWICH DE METAL ET DE THERMOPLASTIQUE**

[72] SHEGOKAR, TUSHAR ASHOK, US

[72] SALZMANN, HEINER, US

[71] MAGNA EXTERIORS INC., CA

[22] 2023-05-23

[41] 2023-11-23

[30] US (63/344,686) 2022-05-23

[21] **3,200,222**  
[13] A1

[25] EN

[54] **SYSTEMS AND METHODS FOR DISPENSING WELDING WIRE TO A SPOOL GUN**

[54] **SYSTEMES ET METHODES POUR DISTRIBUER UN FIL DE SOUDAGE A UN PISTOLET A BOBINE**

[72] WALKOWSKI, SEAN J., US

[72] BENNETT, GREGORY P., US

[72] WHITE, GALEN, US

[72] DOCTOR, RANDY A., US

[71] ILLINOIS TOOL WORKS INC., US

[22] 2023-05-23

[41] 2023-11-25

[30] US (63/345,500) 2022-05-25

[30] US (18/318,063) 2023-05-16

[21] **3,200,266**  
[13] A1

[25] EN

[54] **EFFICIENT VIDEO PLAYER NAVIGATION**

[54] **NAVIGATION EFFICACE DANS UN LECTEUR VIDEO**

[72] BOVE, V. MICHAEL, JR., US

[72] HARB, REDA, US

[71] ROVI GUIDES, INC., US

[22] 2023-05-23

[41] 2023-11-23

[30] US (17/750916) 2022-05-23

[21] **3,200,268**  
[13] A1

[25] EN

[54] **TORQUE SENSOR FOR A BICYCLE OR AN ELECTRIC BICYCLE**

[54] **CAPTEUR DE COUPLE POUR UN VELO OU UN VELO ELECTRIQUE**

[72] HSU, CHE-WEI, TW

[72] HSIAO, TZU-YANG, TW

[72] LIN, YU-KAI, TW

[71] GIANT MANUFACTURING CO. LTD, CN

[22] 2023-05-23

[41] 2023-11-24

[30] US (17/664,869) 2022-05-24

**Canadian Applications Open to Public Inspection  
November 19, 2023 to November 25, 2023**

[21] **3,200,271**  
[13] A1

[51] **Int.Cl. A61J 3/07 (2006.01) B65B 1/04 (2006.01)**  
[25] EN  
[54] **CAPSULE FILLING MACHINE**  
[54] **MACHINE DE REMPLISSAGE DE CAPSULE**  
[72] WURST, REINER, DE  
[72] HUHNNEN, FLORIAN, DE  
[72] GALL, STEFFEN, DE  
[72] COCKS, JONATHAN, DE  
[71] HARRO HOFLIGER  
VERPACKUNGSMASCHINEN  
GMBH, DE  
[22] 2023-05-23  
[41] 2023-11-23  
[30] EP (22 174 944.3) 2022-05-23

[21] **3,200,276**  
[13] A1

[51] **Int.Cl. A47B 11/00 (2006.01) A47B 3/12 (2006.01) A47B 13/00 (2006.01) B63B 29/04 (2006.01) F16C 11/10 (2006.01) F16D 1/112 (2006.01)**  
[25] EN  
[54] **ROTATING TABLETOP FOR RV/MARINE HAVING TAPERED GEARS**  
[54] **TABLE ROTATIVE POUR UN VEHICULE RECREATIF/BATEAU COMPRENANT DES ENGRENAGES CONIQUES**  
[72] RATHBUN, JON, US  
[72] FUKSA, ANDREW, US  
[71] ITC INCORPORATED, US  
[22] 2023-05-23  
[41] 2023-11-23  
[30] US (63/344,866) 2022-05-23  
[30] US (18/200,288) 2023-05-22

[21] **3,200,277**  
[13] A1

[25] EN  
[54] **METERING DEVICE FOR MICRO-TABLETS**  
[54] **DOSEUR A MICRO-COMPRIMES**  
[72] WEIGEL, MARCO, DE  
[72] WEIGLE, MARLON, DE  
[71] HARRO HOFLIGER  
VERPACKUNGSMASCHINEN  
GMBH, DE  
[22] 2023-05-23  
[41] 2023-11-23  
[30] EP (22174943.5) 2022-05-23

[21] **3,200,287**  
[13] A1

[51] **Int.Cl. B29C 48/53 (2019.01) B29C 48/51 (2019.01) B29C 48/62 (2019.01) B29B 7/42 (2006.01)**  
[25] EN  
[54] **NO SOLID BED EXTRUDER SCREW WITH VARYING WIDTH SUB-CHANNELS**  
[54] **VIS D'EXTRUDEUSE SANS LIT SOLIDE COMPRENANT DES SOUS-CANAUX DE LARGEUR VARIABLE**  
[72] MYERS, JEFFREY A., US  
[71] MYERS, JEFFREY A., US  
[22] 2023-05-23  
[41] 2023-11-23  
[30] US (17/664,442) 2022-05-23

[21] **3,200,290**  
[13] A1

[25] EN  
[54] **FLOTATION METHOD FOR RECOVERING LITHIUM-ION BATTERY CATHODE MATERIAL FROM RECYCLED LITHIUM-ION BATTERIES AND SCRAP**  
[54] **METHODE DE FLOTTATION POUR LA RECUPERATION DES MATIERES DE CATHODE DE BATTERIES AU LITHIUM-ION ET DE REBUTS CONNEXES**  
[72] SMITH, WILLIAMS NOVIS, US  
[71] AMERICAN HYPERFORM, INC., US  
[22] 2023-05-23  
[41] 2023-11-24  
[30] US (18/200,088) 2023-05-22  
[30] US (63/345,175) 2022-05-24

[21] **3,200,339**  
[13] A1

[51] **Int.Cl. G02B 6/44 (2006.01) G02B 6/46 (2006.01) H02G 3/18 (2006.01) H05K 5/06 (2006.01)**  
[25] EN  
[54] **CABLE PORT SEAL ASSEMBLY**  
[54] **ASSEMBLAGE DE JOINT D'ORIFICE POUR CABLE**  
[72] MENGUY, MICHEL TEVA, FR  
[71] CORNING RESEARCH & DEVELOPMENT CORPORATION, US  
[22] 2023-05-24  
[41] 2023-11-24  
[30] US (63/345,191) 2022-05-24

[21] **3,200,353**  
[13] A1

[25] EN  
[54] **METHOD FOR DETERMINING A CORRECTED HEIGHT SIGNAL FROM MEASUREMENT DATA OBTAINED WITH OPTICAL COHERENCE TOMOGRAPHY, AND ASSOCIATED MEASURING DEVICE**  
[54] **METHODE POUR LA DETERMINATION D'UN SIGNAL DE HAUTEUR CORRIGE DE DONNEES DE MESURE OBTENUES AU MOYEN DE LA TOMOGRAPHIE PAR COHERENCE OPTIQUE, ET DISPOSITIF DE MESURE CONNEXE**  
[72] LESSMULLER, ECKHARD, DE  
[72] TRUCKENBRODT, CHRISTIAN, DE  
[71] LESSMULLER LASERTECHNIK GMBH, DE  
[22] 2023-05-24  
[41] 2023-11-24  
[30] DE (10 2022 113 157.2) 2022-05-24

[21] **3,200,420**  
[13] A1

[51] **Int.Cl. B65D 43/06 (2006.01) B65D 1/12 (2006.01) B65D 50/04 (2006.01)**  
[25] EN  
[54] **LOCKING CAP FOR BEVERAGE CANS**  
[54] **CAPUCHON VERROUILLABLE POUR DES CANETTES DE BREUVAGE**  
[72] SMYTH, BRYAN, CA  
[72] MCCARRON, NICHOLAS, CA  
[72] CHILDERHOSE, MAXWELL, CA  
[71] SMYTH, BRYAN, CA  
[71] MCCARRON, NICHOLAS, CA  
[71] CHILDERHOSE, MAXWELL, CA  
[22] 2023-05-24  
[41] 2023-11-24  
[30] US (63/345,248) 2022-05-24

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**19 novembre 2023 au 25 novembre 2023**

[21] **3,200,476**  
[13] A1

[51] **Int.Cl. E06B 3/98 (2006.01) E06B 3/96 (2006.01)**  
 [25] EN  
 [54] **MULLION SYSTEMS AND METHODS FOR THE SAME**  
 [54] **SYSTEMES DE MENEAU ET METHODES CONNEXES**  
 [72] LUND, DAVID M., US  
 [71] MARVIN LUMBER AND CEDAR COMPANY, LLC D/B/A MARVIN WINDOWS AND DOORS, US  
 [22] 2023-05-24  
 [41] 2023-11-24  
 [30] US (63/365,246) 2022-05-24

[21] **3,200,633**  
[13] A1

[51] **Int.Cl. A01K 85/14 (2006.01)**  
 [25] EN  
 [54] **FISHING LURE INCLUDING A HYDROFOIL CONFIGURATION**  
 [54] **LEURRE DE PECHE COMPRENANT UNE CONFIGURATION D'HYDROPTERE**  
 [72] HILLER, MICHAEL JAMES, US  
 [72] HILLER, JENNIFER LEIGH, US  
 [71] HANGRY BRAND ENTERPRISES, L.L.C., US  
 [22] 2023-05-25  
 [41] 2023-11-25  
 [30] US (63/345,645) 2022-05-25

[21] **3,200,873**  
[13] A1

[51] **Int.Cl. E01B 7/26 (2006.01) F16N 1/00 (2006.01)**  
 [25] EN  
 [54] **AUTOMATIC SWITCH PLATE LUBRICATION ASSEMBLY**  
 [54] **ASSEMBLAGE DE LUBRIFICATION AUTOMATIQUE DE SELLE DE GLISSEMENT**  
 [72] PIEPER, ROBERT GREGORY, US  
 [72] DAILEY, JUSTIN JEONG, US  
 [72] PIEPER, CHRISTIAN ROBERT, US  
 [71] RBL, INC., US  
 [22] 2023-05-25  
 [41] 2023-11-25  
 [30] US (63/345,755) 2022-05-25

[21] **3,200,551**  
[13] A1

[51] **Int.Cl. B65D 51/16 (2006.01) B65B 7/28 (2006.01)**  
 [25] EN  
 [54] **METHOD OF PRODUCING PACKAGING CONTAINER COMPRISING A VALVE**  
 [54] **METHODE DE PRODUCTION D'UN CONTENANT D'EMBALLAGE COMPRENANT UNE VANNE**  
 [72] HOLKA, SIMON, SE  
 [71] GPI SYSTEMS AB, SE  
 [22] 2023-05-25  
 [41] 2023-11-25  
 [30] SE (2250621-6) 2022-05-25

[21] **3,200,850**  
[13] A1

[51] **Int.Cl. G07C 5/00 (2006.01) G06Q 10/04 (2023.01) G06Q 40/08 (2012.01) B60L 58/10 (2019.01) G06Q 10/063 (2023.01)**  
 [25] EN  
 [54] **COMPUTER-IMPLEMENTED METHODS AND SYSTEMS FOR BATTERY MONITORING, BATTERY REPLACEMENT, AND FLEET MANAGEMENT**  
 [54] **METHODES ET SYSTEMES MIS EN OEUVRE PAR ORDINATEUR POUR LA SURVEILLANCE DE BATTERIES, LE REMPLACEMENT DE BATTERIES ET LA GESTION DE FLOTTE**  
 [72] GROSS, RYAN MICHAEL, US  
 [72] MEGYESE, MATTHEW S., US  
 [72] HARR, JOSEPH P., US  
 [72] CHRISTENSEN, SCOTT THOMAS, US  
 [72] KING, VICKI, US  
 [72] HARBAUGH, SHAWN RENEE, US  
 [71] THE TORONTO-DOMINION BANK, CA  
 [22] 2023-05-25  
 [41] 2023-11-25  
 [30] US (63/345,588) 2022-05-25  
 [30] US (63/356,248) 2022-06-28  
 [30] US (17/980,944) 2022-11-04  
 [30] US (17/980,977) 2022-11-04

[21] **3,203,519**  
[13] A1

[51] **Int.Cl. H02K 3/28 (2006.01) H02K 1/12 (2006.01)**  
 [25] EN  
 [54] **AXIAL FLUX MACHINE AND STATOR FOR AXIAL FLUX MACHINE**  
 [54] **MACHINE A FLUX AXIAL ET STATOR POUR UNE MACHINE A FLUX AXIAL**  
 [72] WANG, KUEI-YUNG, TW  
 [72] WU, YU HSUAN, TW  
 [72] NGUYEN, QUANG ANH, TW  
 [71] HIGH TECH BATTERY INC., TW  
 [22] 2023-06-15  
 [41] 2023-11-20  
 [30] GB (2307452.9) 2023-05-18

[21] **3,200,554**  
[13] A1

[51] **Int.Cl. A01M 29/32 (2011.01) A01M 29/06 (2011.01) A01M 29/08 (2011.01)**  
 [25] EN  
 [54] **BIRD DETERRANCE SYSTEM**  
 [54] **SYSTEME DE DISSUASION DES OISEAUX**  
 [72] TULLOCH, SHAYNE, CA  
 [71] 1323515 B.C. LTD., CA  
 [22] 2023-05-25  
 [41] 2023-11-25  
 [30] US (63/345,827) 2022-05-25

[21] **3,203,908**  
[13] A1

[51] **Int.Cl. A47L 11/33 (2006.01) A47L 11/24 (2006.01) A47L 13/10 (2006.01)**  
 [25] EN  
 [54] **HAIR CLEANER**  
 [54] **NETTOYANT POUR CHEVEUX**  
 [72] LIU, YAN, AU  
 [71] LIU, YAN, AU  
 [22] 2023-06-16  
 [41] 2023-11-22

[21] **3,203,908**  
[13] A1

[51] **Int.Cl. A47L 11/33 (2006.01) A47L 11/24 (2006.01) A47L 13/10 (2006.01)**  
 [25] EN  
 [54] **HAIR CLEANER**  
 [54] **NETTOYANT POUR CHEVEUX**  
 [72] LIU, YAN, AU  
 [71] LIU, YAN, AU  
 [22] 2023-06-16  
 [41] 2023-11-22

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November 19, 2023 to November 25, 2023**

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[21] **3,206,980**

[13] A1

[51] **Int.Cl. F04B 35/00 (2006.01) F04B  
15/00 (2006.01) F04B 39/00 (2006.01)  
F04B 53/14 (2006.01)**

[25] EN

[54] **FLUID RETENTION APPARATUS  
FOR FLUID END OF POSITIVE  
DISPLACEMENT PUMP AND  
RELATED METHOD**

[54] **APPAREIL DE RETENUE DE  
FLUIDE POUR L'EXTREMITÉ A  
FLUIDE D'UNE POMPE  
VOLUMETRIQUE ET METHODE  
CONNEXE**

[72] FROEHLER, ANTHONY STEVEN,  
CA

[72] KEMP, MATTHEW EDWARD, CA

[71] FROEHLER, ANTHONY STEVEN,  
CA

[22] 2023-07-19

[41] 2023-11-19

[30] US (63/343,837) 2022-05-19

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[21] **3,213,199**

[13] A1

[51] **Int.Cl. G06V 20/56 (2022.01) G01C  
21/26 (2006.01) G01C 21/28 (2006.01)  
G01S 13/86 (2006.01) G06T 15/00  
(2011.01)**

[25] EN

[54] **THREE-DIMENSIONAL ROAD  
GEOMETRY ESTIMATION**

[54] **ESTIMATION DE LA GEOMETRIE  
DE ROUTE  
TRIDIMENSIONNELLE**

[72] GRANSTROM, KARL, US

[71] EMBARK TRUCKS INC., US

[22] 2023-09-21

[41] 2023-11-20

[30] US (17/949,693) 2022-09-21

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[21] **3,213,203**

[13] A1

[51] **Int.Cl. B60W 60/00 (2020.01) G01C  
21/26 (2006.01) G01S 13/86 (2006.01)  
G01S 19/53 (2010.01)**

[25] EN

[54] **ALTITUDE SMOOTHING**

[54] **LISSAGE D'ALTITUDE**

[72] WILLIAMS, GRADY D., US

[72] HAEUSLER, PHILLIP JAMES, US

[71] EMBARK TRUCKS INC., US

[22] 2023-09-21

[41] 2023-11-20

[30] US (17/949,673) 2022-09-21

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[21] **3,155,395**  
[13] A1  
[51] **Int.Cl. C08L 75/04 (2006.01) C08J 9/228 (2006.01) C08K 3/04 (2006.01)**  
[25] EN  
[54] **METHODS AND COMPOSITIONS FOR PRODUCING GRAPHENE POLYURETHANE FOAMS**  
[54] **PROCEDES ET COMPOSITIONS DE PRODUCTION DE MOUSSES DE POLYURETHANE-GRAPHENE**  
[72] MANCEVSKI, VLADIMIR, CA  
[71] UNIVERSAL MATTER INC., CA  
[85] 2022-04-20  
[86] 2020-10-26 (PCT/CA2020/051434)  
[87] (WO2021/077233)

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[21] **3,166,146**  
[13] A1  
[51] **Int.Cl. A61K 38/17 (2006.01) A23L 33/10 (2016.01) A23L 33/17 (2016.01) A61P 11/00 (2006.01) C07K 14/47 (2006.01) C12N 15/12 (2006.01) C12N 15/63 (2006.01)**  
[25] EN  
[54] **COMPOSITION FOR PREVENTING OR TREATING PULMONARY DISEASES COMPRISING HYALURONAN AND PROTEOGLYCAN LINK PROTEIN 1**  
[54] **COMPOSITION POUR LA PREVENTION OU LE TRAITEMENT DE MALADIES PULMONAIRES COMPRENANT DE L'ACIDE HYALURONIQUE ET LA PROTEINE 1 DE LIAISON PROTEOGLYCANE**  
[72] KIM, DAE KYONG, KR  
[72] PIAO, YONG WEI, KR  
[72] JANG, JI MIN, KR  
[72] ZHOU, DAN, KR  
[72] YUN, SO YOON, KR  
[72] PARK, BO KYUNG, KR  
[71] HAPLNSCIENCE INC., KR  
[85] 2022-07-26  
[86] 2021-02-02 (PCT/KR2021/001374)  
[87] (WO2021/158000)  
[30] KR (10-2020-0012742) 2020-02-03

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[21] **3,171,061**  
[13] A1  
[51] **Int.Cl. C07K 19/00 (2006.01) A61K 47/68 (2017.01) A61K 38/17 (2006.01) A61K 39/395 (2006.01) A61P 35/00 (2006.01) C07K 14/55 (2006.01) C07K 14/715 (2006.01) C07K 16/28 (2006.01) C12N 15/62 (2006.01) C12P 21/00 (2006.01) A61K 38/20 (2006.01)**  
[25] EN  
[54] **IL2-BASED THERAPEUTICS AND METHODS OF USE THEREOF**  
[54] **THERAPEUTIQUES A BASE D'IL2 ET LEURS PROCEDES D'UTILISATION**  
[72] LIN, CHIA-YANG, US  
[72] WU, JIAXI, US  
[72] BLOCH, NICOLIN, US  
[72] ZHANG, TONG, US  
[72] DAVIS, SAMUEL, US  
[72] SMITH, ERIC, US  
[72] ULLMAN, ERICA, US  
[71] REGENERON PHARMACEUTICALS, INC., US  
[85] 2022-09-08  
[86] 2022-06-13 (PCT/US2022/072895)  
[87] (3171061)  
[30] US (63/210,111) 2021-06-14

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[21] **3,173,086**  
[13] A1  
[51] **Int.Cl. B65B 23/00 (2006.01) B65B 43/26 (2006.01)**  
[25] EN  
[54] **APPARATUS AND METHOD FOR PRODUCTS PACKAGING**  
[54] **MONROY OROPEZA, JHONATAN, MX**  
[72] CARIDIS, ANDREW ANTHONY, US  
[72] ZARATE ANDRADE, LEOPOLDO, MX  
[71] HEAT AND CONTROL, INC., US  
[85] 2022-09-23  
[86] 2022-05-20 (PCT/IB2022/054765)  
[87] (3173086)  
[30] MX (MX/A/2021/006240) 2021-05-27

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[21] **3,173,366**  
[13] A1  
[51] **Int.Cl. G01S 11/02 (2010.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR ACCOMMODATING FLEXIBILITY IN SENSING TRANSMISSIONS**  
[54] **SYSTEMES ET PROCEDES D'ADAPTATION DE FLEXIBILITE DANS DES TRANSMISSIONS DE DETECTION**  
[72] BEG, CHRISTOPHER, CA  
[72] OMER, MOHAMMAD, CA  
[71] COGNITIVE SYSTEMS CORP., CA  
[85] 2022-09-26  
[86] 2022-05-25 (PCT/IB2022/054924)  
[87] (3173366)  
[30] US (63/193,287) 2021-05-26

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[21] **3,209,723**  
[13] A1  
[51] **Int.Cl. B01D 53/62 (2006.01) B01D 53/14 (2006.01)**  
[25] EN  
[54] **DEVICE AND METHOD FOR STAGED ABSORPTION AMMONIA-BASED DECARBONIZATION**  
[54] **DISPOSITIF ET METHODE DE DECARBONATION A BASE D'AMMONIAC A ABSORPTION ETAGEE**  
[72] ZHANG, JUN, CN  
[72] QI, LIFANG, CN  
[72] WANG, JINYONG, CN  
[72] LUO, JING, CN  
[71] JIANGNAN ENVIRONMENTAL TECHNOLOGY INC, US  
[85] 2023-08-24  
[86] 2023-03-24 (PCT/CN2023/083689)  
[87] (3209723)  
[30] CN (202210553874.4) 2022-05-19

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[21] **3,210,431**  
[13] A1

[51] **Int.Cl. C01C 1/26 (2006.01) B01D 53/14 (2006.01) B01D 53/62 (2006.01)**

[25] EN

[54] **METHOD AND DEVICE FOR PRODUCING AMMONIUM BICARBONATE IN AMMONIA-BASED DECARBONIZATION SYSTEM**

[54] **METHODE ET DISPOSITIF POUR LA PRODUCTION DE BICARBONATE D'AMMONIUM DANS UN SYSTEME DE DECARBONATION A BASE D'AMMONIAC**

[72] WANG, JINYONG, CN  
[72] ZHANG, JUN, CN  
[72] QI, LIFANG, CN  
[72] LUO, JING, CN  
[71] JIANGNAN ENVIRONMENTAL PROTECTION GROUP INC., KY

[85] 2023-08-30  
[86] 2023-05-19 (PCT/CN2023/095168)  
[87] (3210431)  
[30] CN (202210553353.9) 2022-05-20

[21] **3,210,444**  
[13] A1

[51] **Int.Cl. B01D 53/58 (2006.01) B01D 53/14 (2006.01)**

[25] EN

[54] **DEVICE AND METHOD FOR CONTROLLING AMMONIA ESCAPE IN AMMONIA-BASED DECARBONIZATION SYSTEM**

[54] **DISPOSITIF ET METHODE POUR CONTROLER L'ECHAPPEMENT D'AMMONIAC DANS UN SYSTEME DE DECARBONATION A BASE D'AMMONIAC**

[72] QI, LIFANG, CN  
[72] WANG, JINYONG, CN  
[72] LUO, JING, CN  
[72] ZHANG, JUN, CN  
[71] JIANGNAN ENVIRONMENTAL TECHNOLOGY INC, US

[85] 2023-08-30  
[86] 2023-03-24 (PCT/CN2023/083695)  
[87] (3210444)  
[30] CN (202210552210.6) 2022-05-19

[21] **3,210,453**  
[13] A1

[51] **Int.Cl. B01D 53/62 (2006.01) B01D 53/14 (2006.01)**

[25] EN

[54] **MULTI-STAGE AMMONIA-PROCESS DECARBONIZATION METHOD**

[54] **METHODE DE DECARBONATION A PROCEDE D'AMMONIAC A ETAGES MULTIPLES**

[72] ZHANG, JUN, CN  
[72] QI, LIFANG, CN  
[72] WANG, JINYONG, CN  
[72] LUO, JING, CN  
[71] JIANGNAN ENVIRONMENTAL TECHNOLOGY INC, US

[85] 2023-08-30  
[86] 2023-05-18 (PCT/CN2023/095042)  
[87] (3210453)  
[30] CN (202210553333.1) 2022-05-20

[21] **3,211,087**  
[13] A1

[51] **Int.Cl. G06Q 10/105 (2023.01) G06F 40/20 (2020.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR UPDATING AND PRESENTING SUBJECT-SPECIFIC COMPLIANCE STANDARD INFORMATION**

[54] **SYSTEMES ET METHODES POUR LA MISE A JOUR ET LA PRESENTATION DE RENSEIGNEMENTS SUR LES NORMES DE CONFORMITE PROPRES AUX SUJETS**

[72] CHINNALAGU, ANANDAN, US  
[72] SMITH, GORDON, US  
[71] AC INFOTECH INC., US  
[71] MATRIX ABSENCE MANAGEMENT, INC., US

[85] 2023-09-28  
[86] 2023-05-19 (PCT/US2023/067270)  
[87] (3211087)  
[30] US (17/750,177) 2022-05-20  
[30] US (18/309,626) 2023-04-28

[21] **3,211,952**  
[13] A1

[51] **Int.Cl. A01D 34/67 (2006.01) A01D 34/68 (2006.01) A01D 34/82 (2006.01)**

[25] EN

[54] **ELECTRIC LAWN MOWER WITH PIVOTING LEVER AND START SWITCH**

[54] **TONDEUSE ELECTRIQUE COMPRENANT UN LEVIER PIVOTANT ET UN INTERRUPTEUR DE DEMARRAGE**

[72] OJEDA, CARLOS, US  
[72] RAO, NAGARAJ, US  
[71] OSO ELECTRIC EQUIPMENT, LLC, US

[85] 2023-09-12  
[86] 2023-03-01 (PCT/US2023/063486)  
[87] (3211952)  
[30] US (63/345,530) 2022-05-25

[21] **3,217,971**  
[13] A1

[51] **Int.Cl. C07K 14/195 (2006.01) C07K 14/245 (2006.01) C07K 14/31 (2006.01) C07K 14/315 (2006.01) C07K 14/35 (2006.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR IDENTIFYING NOVEL PORE-FORMING TOXINS**

[54] **SYSTEMES ET PROCEDES D'IDENTIFICATION DE NOUVELLES TOXINES FORMANT DES PORES**

[72] JACOB, THEJU, US  
[72] KAHN, THEODORE, US  
[72] LIU, YAN, US  
[72] XU, NAN, US  
[71] BASF AGRICULTURAL SOLUTIONS SEED US LLC, US  
[71] UNIVERSITY OF SOUTHERN CALIFORNIA USC, US

[85] 2023-11-03  
[86] 2022-05-05 (PCT/US2022/072132)  
[87] (WO2022/236299)  
[30] US (63/184,731) 2021-05-05  
[30] US (63/313,134) 2022-02-23

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[21] **3,218,567**  
[13] A1

[51] **Int.Cl. H04L 67/60 (2022.01) H04L 67/566 (2022.01) H04L 69/28 (2022.01)**

[25] EN

[54] **GENERATING HIGH RESOLUTION TIME STAMPS IN A VERY HIGH VOLUME TRANSACTION REQUEST ENVIRONMENT**

[54]

[72] DERMOSESSIAN, GARO, CA

[71] PLEMICOR HOLDINGS CANADA INC., CA

[85] 2023-11-09

[86] 2023-05-12 (PCT/CA2023/050662)

[87] (3218567)

[30] US (63/341,095) 2022-05-12

[21] **3,218,945**  
[13] A1

[51] **Int.Cl. F01P 7/16 (2006.01) F16H 57/04 (2010.01) F16K 15/02 (2006.01) F16K 17/04 (2006.01) F16K 31/00 (2006.01)**

[25] EN

[54] **THERMAL BYPASS CONTROL VALVE FOR A COOLER LINE BLOCK WITH OFFSET CHANNELS FOR AN OUTFLOW LINE**

[54] **SOUAPE REGULATRICE DE DERIVATION THERMIQUE POUR UN BLOC DE CONDUITES DE REFROIDISSEMENT AVEC CANAUX DECALES POUR UNE CONDUITE DE SORTIE**

[72] MASON, DEAN, US

[72] WHITE, ROBERT T., US

[71] SUPERIOR TRANSMISSION PARTS, INC., US

[85] 2023-11-14

[86] 2022-05-16 (PCT/US2022/029480)

[87] (WO2022/241324)

[30] US (63/188,531) 2021-05-14

[21] **3,219,233**  
[13] A1

[25] EN

[54] **COMBINED TREATMENT FOR CANCER**

[54] **TRAITEMENT COMBINE DU CANCER**

[72] STRAUSSMAN, RAVID, IL

[72] SANDLER, ODED, IL

[71] YEDA RESEARCH AND DEVELOPMENT CO. LTD., IL

[85] 2023-11-16

[86] 2022-06-06 (PCT/IL2022/050600)

[87] (WO2022/259242)

[30] US (63/197,402) 2021-06-06

[21] **3,219,247**  
[13] A1

[51] **Int.Cl. C12Q 1/6883 (2018.01) A61P 27/02 (2006.01)**

[25] EN

[54] **INHIBITORY NUCLEIC ACIDS FOR FACTOR H FAMILY PROTEINS**

[54] **ACIDES NUCLEIQUES INHIBITEURS POUR PROTEINES DE LA FAMILLE DU FACTEUR H**

[72] CLARK, SIMON, GB

[72] MUNYE, MUSTAFA, GB

[72] RATHI, SONIKA, GB

[71] COMPLEMENT THERAPEUTICS LIMITED, GB

[85] 2023-11-16

[86] 2022-05-26 (PCT/EP2022/064376)

[87] (WO2022/248651)

[30] GB (2107586.6) 2021-05-27

[21] **3,219,248**  
[13] A1

[51] **Int.Cl. A61K 31/496 (2006.01) A61P 35/00 (2006.01)**

[25] EN

[54] **PARP INHIBITOR-RESISTANT CANCER THERAPEUTIC AGENT**

[54] **AGENT THERAPEUTIQUE CONTRE LE CANCER RESISTANT A UN INHIBITEUR DE PARP**

[72] CHA, HYUN JU, KR

[72] LEE, CHANG SEOK, KR

[72] HAN, SANG WOO, KR

[72] KIM, JOHN, KR

[71] ONCONIC THERAPEUTICS INC., KR

[85] 2023-11-16

[86] 2022-05-18 (PCT/KR2022/007115)

[87] (WO2022/245131)

[30] KR (10-2021-0064278) 2021-05-18

[30] KR (10-2022-0060706) 2022-05-18

[21] **3,219,254**  
[13] A1

[51] **Int.Cl. A61K 35/30 (2015.01) A61L 27/38 (2006.01)**

[25] EN

[54] **NEURITE OUTGROWTH PROMOTION KIT AND USE THEREFOR**

[54] **KIT DE PROMOTION D'EXCROISSANCE DES NEURITES ET SON UTILISATION**

[72] OKANO, HIDEYUKI, JP

[72] KASE, YOSHITAKA, JP

[71] KEIO UNIVERSITY, JP

[85] 2023-11-16

[86] 2022-05-27 (PCT/JP2022/021676)

[87] (WO2022/250127)

[30] JP (2021-089367) 2021-05-27

[21] **3,219,255**  
[13] A1

[51] **Int.Cl. F27B 7/04 (2006.01) C21B 3/08 (2006.01) F27B 7/38 (2006.01) F27D 15/02 (2006.01)**

[25] EN

[54] **IMPROVED COOLING APPARATUS**

[54] **APPAREIL DE REFROIDISSEMENT AMELIORE**

[72] CARLESSO, FRANCO, IT

[72] PIZZATO, EDOARDO, IT

[71] TRUYOINS S.R.L., IT

[71] MATERIAL HANDLING TECHNOLOGY S.R.L., IT

[85] 2023-11-16

[86] 2022-05-17 (PCT/IB2022/054562)

[87] (WO2022/243856)

[30] IT (102021000012812) 2021-05-18

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[21] **3,219,256**  
[13] A1

[51] **Int.Cl. A01N 43/82 (2006.01) C07D 271/06 (2006.01) C07D 401/12 (2006.01) C07D 403/12 (2006.01) C07D 413/12 (2006.01) C07D 419/12 (2006.01)**

[25] EN

[54] **FUNGICIDAL COMPOSITION CONTAINING OXADIAZOLE COMPOUNDS**

[54] **COMPOSITION FONGICIDE CONTENANT DES COMPOSES OXADIAZOLES**

[72] BHUJADE, PARAS RAYBHAN, IN

[72] NAIK, MARUTI N, IN

[72] AUTKAR, SANTOSH SHRIDHAR, IN

[72] KLAUSENER, ALEXANDER G.M., DE

[71] PI INDUSTRIES LTD., IN

[85] 2023-11-16

[86] 2022-05-25 (PCT/IB2022/054871)

[87] (WO2022/249074)

[30] IN (202111023436) 2021-05-26

[21] **3,219,259**  
[13] A1

[51] **Int.Cl. C07D 409/14 (2006.01) A01N 43/56 (2006.01)**

[25] EN

[54] **A NOVEL PROCESS FOR THE PREPARATION OF ANTHRANILIC DIAMIDES**

[54] **NOUVEAU PROCEDE DE PREPARATION DE DIAMIDES ANTHRANILIQUES**

[72] YADAV, AJAY, IN

[72] MAHAPATRA, TRIDIB, IN

[72] PABBA, JAGADISH, IN

[72] PATRA, PRANAB KUMAR, IN

[72] SHINDE, BHARAT UTTAMRAO, IN

[72] KALWAGHE, AMOL D., IN

[72] SHAH, JIGARKUMAR HARIKISHANDAS, IN

[72] KANAWADE, SHRIKANT BHAUSAHEB, IN

[72] SHARMA, RAJU, IN

[72] GURJAR, BHAGWAN LAL, IN

[72] KLAUSENER, ALEXANDER G.M., DE

[71] PI INDUSTRIES LTD., IN

[85] 2023-11-16

[86] 2022-06-03 (PCT/IB2022/055195)

[87] (WO2022/254395)

[30] IN (202111024851) 2021-06-04

[21] **3,219,260**  
[13] A1

[51] **Int.Cl. B60W 40/10 (2012.01)**

[25] EN

[54] **METHOD FOR GENERATING AN ENERGY-EFFICIENT TRACK FOR A VEHICLE**

[54] **PROCEDE DE GENERATION D'UNE VOIE ECONOMOME EN ENERGIE POUR UN VEHICULE**

[72] PANKOV, BORIS VALEREVICH, RU

[71] PANKOV, BORIS VALEREVICH, RU

[85] 2023-11-16

[86] 2022-04-01 (PCT/RU2022/050110)

[87] (WO2022/250573)

[30] RU (2021114615) 2021-05-24

[21] **3,219,262**  
[13] A1

[51] **Int.Cl. B60W 40/105 (2012.01) B60W 40/06 (2012.01) B60W 40/12 (2012.01)**

[25] EN

[54] **GENERATING AN ADJUSTMENT ENERGY-EFFICIENT TRACK FOR A VEHICLE**

[54] **GENERATION D'UNE VOIE DE REGLAGE EFFICACE DU POINT DE VUE ENERGETIQUE POUR UN VEHICULE**

[72] PANKOV, BORIS VALEREVICH, RU

[71] PANKOV, BORIS VALEREVICH, RU

[85] 2023-11-16

[86] 2022-06-01 (PCT/RU2022/050176)

[87] (WO2022/255911)

[30] RU (2021115767) 2021-06-01

[21] **3,219,267**  
[13] A1

[51] **Int.Cl. C07C 57/04 (2006.01) C07C 231/06 (2006.01) C07C 233/09 (2006.01) C08F 20/06 (2006.01) C08F 20/56 (2006.01) C12P 13/02 (2006.01)**

[25] EN

[54] **BIOLOGICAL METHOD FOR OBTAINING MONOMERS COMPRISING AN ETHYLENIC UNSATURATION BY BIOCONVERSION OF A BIO-SOURCED COMPOUND COMPRISING AT LEAST ONE NITRILE FUNCTION**

[54] **PROCEDE BIOLOGIQUE D'OBTENTION DE MONOMERES COMPRENANT UNE INSATURATION ETHYLENIQUE PAR BIOCONVERSION D'UN COMPOSE BIO-SOURCE COMPRENANT AU MOINS UNE FONCTION NITRILE**

[72] FAVERO, CEDRICK, FR

[72] KIEFFER, JOHANN, FR

[71] SNF GROUP, FR

[85] 2023-11-16

[86] 2022-07-08 (PCT/EP2022/069156)

[87] (WO2023/281088)

[30] FR (FR2107485) 2021-07-09

[21] **3,219,269**  
[13] A1

[51] **Int.Cl. A47C 1/12 (2006.01)**

[25] EN

[54] **SPECIAL EFFECTS ENTERTAINMENT SYSTEM**

[54] **SYSTEME DE DIVERTISSEMENT A EFFETS SPECIAUX**

[72] FRANCO, SEBASTIAN, US

[72] FRANCO, MARCOS, US

[71] LUMMA,LLC., US

[85] 2023-11-16

[86] 2021-08-19 (PCT/US2021/046706)

[87] (WO2023/022720)



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[21] **3,219,270**  
[13] A1

[51] **Int.Cl. E01C 11/22 (2006.01) E01C 9/10 (2006.01)**  
[25] EN  
[54] **GRATING AND METHOD OF MANUFACTURING A GRATING**  
[54] **GRILLE ET PROCEDE DE FABRICATION D'UNE GRILLE**  
[72] CREIGHTON, TROY, AU  
[71] STORMTECH PTY LIMITED, AU  
[85] 2023-11-16  
[86] 2022-06-30 (PCT/AU2022/050682)  
[87] (WO2023/272357)  
[30] AU (2021901991) 2021-06-30

[21] **3,219,273**  
[13] A1

[51] **Int.Cl. A61P 31/20 (2006.01)**  
[25] EN  
[54] **USE OF 5-NITRO-8-HYDROXYQUINOLINE**  
[54] **UTILISATION DE LA 5-NITRO-8-HYDROXYQUINOLEINE**  
[72] DENG, YIJUN, CN  
[71] JIANGSU YAHONG MEDITECH CO., LTD., CN  
[71] ASIERIS PHARMACEUTICALS (SHANGHAI) CO., LTD., CN  
[85] 2023-11-16  
[86] 2022-05-30 (PCT/CN2022/095861)  
[87] (WO2022/253159)  
[30] CN (202110601777.3) 2021-05-31

[21] **3,219,275**  
[13] A1

[51] **Int.Cl. C10L 9/08 (2006.01)**  
[25] EN  
[54] **HYDROTHERMAL TREATMENT OF BIOMASS**  
[54] **TRAITEMENT HYDROTHERMIQUE DE BIOMASSE**  
[72] PELS, JAN REMMERT, NL  
[72] CIEPLIK, MARIUSZ KAZIMIERZ, NL  
[71] NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAPPELIJK ONDERZOEK TNO, NL  
[85] 2023-11-16  
[86] 2022-05-26 (PCT/EP2022/064381)  
[87] (WO2022/248653)  
[30] EP (21176048.3) 2021-05-26

[21] **3,219,277**  
[13] A1

[51] **Int.Cl. C08F 220/20 (2006.01) C09D 133/06 (2006.01)**  
[25] EN  
[54] **WATERBORNE COATING COMPOSITION**  
[54] **COMPOSITION DE REVETEMENT A L'EAU**  
[72] KLOOSTERMAN, WOUTER MARINUS JACOBUS, NL  
[72] HARRER, ROBERT, AT  
[71] ALLNEX NETHERLANDS B.V., NL  
[85] 2023-11-16  
[86] 2022-06-14 (PCT/EP2022/066094)  
[87] (WO2022/263402)  
[30] EP (21179505.9) 2021-06-15

[21] **3,219,278**  
[13] A1

[51] **Int.Cl. A01K 67/033 (2006.01)**  
[25] EN  
[54] **CYCLONE SEPARATION SYSTEM**  
[54] **SYSTEME DE SEPARATION A CYCLONE**  
[72] VAN KILSDONK, JAAP, NL  
[72] SCHMITT, ERIC HOLLAND, NL  
[72] JACOBS, RALF HENRICUS WILHELMINA, NL  
[72] SIMONS, HENRICUS PETRUS JOHANNES, NL  
[72] JANSEN, MAURITS PETRUS MARIA, NL  
[72] TOLLENAAR, WARD, NL  
[72] HULSEBOS, HUBERTUS LOURENTIUS, NL  
[71] PROTIX B.V., NL  
[85] 2023-11-16  
[86] 2022-05-13 (PCT/NL2022/050261)  
[87] (WO2022/245206)  
[30] NL (2028241) 2021-05-19

[21] **3,219,279**  
[13] A1

[25] EN  
[54] **METHODS AND APPARATUS FOR DETECTING BRAIN DISORDERS**  
[54] **PROCEDES ET APPAREIL DE DETECTION DE TROUBLES CEREBRAUX**  
[72] MUNOZ, DOUGLAS P., CA  
[72] BRIEN, DONALD CHRISTOPHER, CA  
[72] COE, BRIAN CHARLES, CA  
[72] WHITE, BRIAN JOSEPH, CA  
[71] QUEEN'S UNIVERSITY AT KINGSTON, CA  
[85] 2023-11-16  
[86] 2022-05-18 (PCT/CA2022/050784)  
[87] (WO2022/241554)  
[30] US (63/189,819) 2021-05-18

[21] **3,219,281**  
[13] A1

[51] **Int.Cl. H01M 50/533 (2021.01) H01M 50/107 (2021.01) H01M 50/167 (2021.01) H01M 50/213 (2021.01) H01M 50/249 (2021.01) H01M 50/538 (2021.01) H01M 50/586 (2021.01) H01M 50/593 (2021.01)**  
[25] EN  
[54] **ELECTRODE ASSEMBLY, BATTERY, AND BATTERY PACK AND VEHICLE INCLUDING THE SAME**  
[54] **ENSEMBLE ELECTRODE, BATTERIE ET BLOC-BATTERIE ET VEHICULE LE COMPRENANT**  
[72] LEE, JAE-EUN, KR  
[72] PARK, JONG-SIK, KR  
[72] KIM, HAK-KYUN, KR  
[72] LEE, JE-JUN, KR  
[72] LIM, JAE-WON, KR  
[72] CHOE, YU-SUNG, KR  
[72] LEE, BYOUNG-GU, KR  
[72] RYU, DUK-HYUN, KR  
[72] LEE, KWAN-HEE, KR  
[71] LG ENERGY SOLUTION, LTD., KR  
[85] 2023-11-16  
[86] 2022-07-19 (PCT/KR2022/010565)  
[87] (WO2023/090577)  
[30] KR (10-2021-0160469) 2021-11-19  
[30] KR (10-2021-0160474) 2021-11-19  
[30] KR (10-2021-0160823) 2021-11-19  
[30] KR (10-2022-0076274) 2022-06-22

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[21] **3,219,282**  
[13] A1

[51] **Int.Cl. A01N 63/30 (2020.01) C05G 3/60 (2020.01) C05F 11/08 (2006.01)**

[25] EN

[54] **MYCORRHIZAL FUNGI PLANT PROTECTION COMPOSITION AND METHOD**

[54] **COMPOSITION ET PROCEDE DE PROTECTION PHYTOSANITAIRE CONTENANT DES CHAMPIGNONS MYCORHIZIENS**

[72] ISACK, YOCHAI, IL

[72] LEVY, DAN, IL

[72] KOFMAN, YOSEF, IL

[71] GROUNDWORK BIOAG LTD., IL

[85] 2023-11-16

[86] 2022-05-24 (PCT/IL2022/050545)

[87] (WO2022/249174)

[30] IL (283410) 2021-05-24

[21] **3,219,283**  
[13] A1

[51] **Int.Cl. A61K 31/19 (2006.01) A61K 31/192 (2006.01) A61K 31/194 (2006.01) A61K 31/4045 (2006.01) A61K 45/06 (2006.01) A61P 25/06 (2006.01) A61P 25/16 (2006.01) A61P 25/22 (2006.01) A61P 25/24 (2006.01) A61P 25/28 (2006.01)**

[25] EN

[54] **COMBINATION OF A KETONE BODY OR KETOGENIC COMPOUND WITH AN ANALGESIC OR ANTIOXIDANT**

[54] **COMBINAISON D'UN CORPS CETONIQUE OU D'UN COMPOSE CETOGENE AVEC UN ANALGESIQUE OU UN ANTIOXYDANT**

[72] GROSS, ELENA, CH

[71] KETOSWISS AG, CH

[85] 2023-11-16

[86] 2022-07-17 (PCT/EP2022/069972)

[87] (WO2023/001724)

[30] EP (21186274.3) 2021-07-17

[21] **3,219,284**  
[13] A1

[51] **Int.Cl. A01G 9/029 (2018.01) A01C 23/04 (2006.01) A01G 9/02 (2018.01) A01G 9/26 (2006.01) A01G 31/06 (2006.01)**

[25] EN

[54] **AGRICULTURAL SYSTEM, DEVICE AND METHOD**

[54] **SYSTEME, DISPOSITIF ET PROCEDE AGRICOLES**

[72] ECKERSLEY-MASLIN, SEBASTIEN, AU

[72] MOGER, KATHARYN, AU

[71] PHYLLHOME IP PTY LTD, AU

[85] 2023-11-16

[86] 2022-05-09 (PCT/AU2022/050434)

[87] (WO2022/241505)

[30] AU (2021901455) 2021-05-17

[21] **3,219,287**  
[13] A1

[51] **Int.Cl. C12N 15/63 (2006.01) C12N 15/86 (2006.01)**

[25] EN

[54] **NOVEL DUAL HELPER PLASMID**

[54] **NOUVEAU PLASMIDE AUXILIAIRE DOUBLE**

[72] HAN, JOO SEOK, KR

[72] KONG, HOON YOUNG, KR

[72] HWANG, YOON HYUNG, KR

[71] NEURACLE GENETICS INC., KR

[85] 2023-11-16

[86] 2022-05-27 (PCT/KR2022/007553)

[87] (WO2022/250491)

[30] KR (10-2021-0068364) 2021-05-27

[21] **3,219,288**  
[13] A1

[51] **Int.Cl. H01M 50/30 (2021.01) H01M 50/105 (2021.01) H01M 50/124 (2021.01) H01M 50/131 (2021.01) H01M 50/183 (2021.01) H01M 50/358 (2021.01) H01M 50/375 (2021.01)**

[25] EN

[54] **GAS RELEASE MEMBER AND SECONDARY BATTERY COMPRISING THE SAME**

[54] **ELEMENT DE DECHARGE DE GAZ ET BATTERIE SECONDAIRE LE COMPRENANT**

[72] LIM, HUN-HEE, KR

[72] KIM, SANG-HUN, KR

[72] KANG, MIN-HYEONG, KR

[72] SONG, DAE-WOONG, KR

[72] YU, HYUNG-KYUN, KR

[72] HWANG, SOO-JI, KR

[71] LG ENERGY SOLUTION, LTD., KR

[85] 2023-11-16

[86] 2023-02-08 (PCT/KR2023/001862)

[87] (WO2023/214644)

[30] KR (10-2022-0054204) 2022-05-02

[21] **3,219,289**  
[13] A1

[51] **Int.Cl. A61B 17/82 (2006.01) A61B 17/84 (2006.01)**

[25] EN

[54] **SURGICAL SYSTEM AND METHOD INCLUDING CERCLAGE WITH LOOP**

[54] **SYSTEME CHIRURGICAL ET PROCEDE COMPRENANT LE CERCLAGE AVEC UNE BOUCLE**

[72] CURRAN, ANDREW R., US

[72] HOLOWECKY, ALLEN, US

[71] ARTHREX, INC., US

[85] 2023-11-16

[86] 2022-05-03 (PCT/US2022/027409)

[87] (WO2022/256104)

[30] US (17/335,175) 2021-06-01

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[21] **3,219,290**  
[13] A1

[51] **Int.Cl. A62C 13/76 (2006.01) A62C 13/66 (2006.01)**

[25] EN

[54] **FIRE EXTINGUISHER CAP ASSEMBLY FOR A CONTAINER AND METHOD OF USING SAME FOR EXTINGUISHING A FIRE**

[54] **ENSEMBLE CAPUCHON D'EXTINCTEUR POUR RECIPIENT ET PROCEDE D'UTILISATION ASSOCIE POUR ETEINDRE UN INCENDIE**

[72] BEDARD, NORMAN, CA

[72] ARAKELIAN, GAREN, AM

[71] COMMERCE STE MARIE INC., CA

[85] 2023-11-16

[86] 2022-05-18 (PCT/IB2022/054637)

[87] (WO2022/243904)

[30] US (63/190,308) 2021-05-19

[30] US (17/386,747) 2021-07-28

[21] **3,219,291**  
[13] A1

[51] **Int.Cl. E04C 5/10 (2006.01) F16L 17/06 (2006.01)**

[25] EN

[54] **DEVICES, SYSTEMS, AND METHODS FOR CONNECTING CONCRETE STRUCTURAL ELEMENTS**

[54] **DISPOSITIFS, SYSTEMES ET PROCEDES DE RACCORDEMENT D'ELEMENTS STRUCTURELS EN BETON**

[72] ALESCH, MATTHEW, US

[72] ROMANO, JOHN MICHAEL, US

[72] ZAVITZ, BRYANT, US

[72] KIRKLEY, KEVIN, US

[71] TINDALL CORPORATION, US

[85] 2023-11-16

[86] 2022-05-23 (PCT/US2022/030580)

[87] (WO2022/251133)

[30] US (63/193,967) 2021-05-27

[21] **3,219,292**  
[13] A1

[51] **Int.Cl. F03B 13/20 (2006.01)**

[25] EN

[54] **WEC CONTROLLER, METHOD AND SYSTEM**

[54] **CONTROLEUR HOULOMOTRICE (WEC), PROCEDE ET SYSTEME ASSOCIES**

[72] ZAMPATO, MASSIMO, IT

[72] VANZAN, DANIELE, IT

[72] MATTIAZZO, GIULIANA, IT

[72] CAPELLO, ELISA, IT

[72] BRACCO, GIOVANNI, IT

[72] BONFANTI, MAURO, IT

[71] ENI S.P.A., IT

[85] 2023-11-16

[86] 2022-06-23 (PCT/IB2022/055825)

[87] (WO2022/269529)

[30] IT (102021000016634) 2021-06-24

[21] **3,219,293**  
[13] A1

[51] **Int.Cl. A23K 10/20 (2016.01) A23L 33/18 (2016.01) A23J 3/04 (2006.01) A61K 35/64 (2015.01)**

[25] EN

[54] **INSECT PROTEIN COMPOSITION FOR THE PREVENTION AND TREATMENT OF CONDITIONS RELATED TO INTESTINAL OXIDATIVE STRESS DAMAGE**

[54] **COMPOSITION DE PROTEINE D'INSECTE POUR LA PREVENTION ET LE TRAITEMENT DE PATHOLOGIES LIEES A UN ENDOMMAGEMENT PAR STRESS OXYDATIF INTESTINAL**

[72] PAUL, AMAN, NL

[72] TOME, NURIA MARTIN, NL

[72] CHAKRABORTY, ARPITA, NL

[71] PROTIX B.V., NL

[85] 2023-11-16

[86] 2022-05-02 (PCT/NL2022/050236)

[87] (WO2022/250527)

[30] NL (2028315) 2021-05-28

[21] **3,219,296**  
[13] A1

[25] EN

[54] **HIGH-RATE DECIMATION FILTER WITH LOW HARDWARE COMPLEXITY**

[54] **FILTRE DE DECIMATION A HAUT DEBIT A FAIBLE COMPLEXITE DE MATERIEL**

[72] GURUMANI, SANTHARAM, US

[72] LYKINS, JAMES PATRICK, US

[72] SUBRAMANIAM, BALA, US

[71] HUGHES NETWORK SYSTEMS, LLC, US

[85] 2023-11-16

[86] 2022-05-02 (PCT/US2022/027286)

[87] (WO2022/245531)

[30] US (63/190,721) 2021-05-19

[30] US (17/510,607) 2021-10-26

[21] **3,219,297**  
[13] A1

[51] **Int.Cl. C07K 16/28 (2006.01)**

[25] EN

[54] **METHODS AND COMPOSITIONS FOR TREATING HEMATOLOGICAL MALIGNANCIES**

[54] **METHODES ET COMPOSITIONS DE TRAITEMENT DE TUMEURS MALIGNES HEMATOLOGIQUES**

[72] TSANG, KWONG Y., US

[72] FANTINI, MASSIMO, US

[72] ARLEN, PHILIP M., US

[71] PRECISION BIOLOGICS, INC., US

[85] 2023-11-16

[86] 2022-05-19 (PCT/US2022/030028)

[87] (WO2022/246066)

[30] US (63/190,466) 2021-05-19

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[21] **3,219,302**  
[13] A1

[51] **Int.Cl. E01B 3/40 (2006.01) E01B 7/22 (2006.01)**

[25] FR

[54] **ASSEMBLY COMPRISING AT LEAST ONE RAIL AND A SUPPORT**

[54] **ENSEMBLE COMPORTANT AU MOINS UN RAIL ET UN SUPPORT**

[72] BARRESI, FRANCESCO, FR

[72] GEGOUX, NICOLAS, FR

[72] QUIRIN, CHRISTOPHE, FR

[72] ALLOUI, YUCEF, FR

[72] GIRARDI, MARCEL, FR

[72] PHAN, THANH-SONG, FR

[72] VIAN, DAVID, FR

[72] ZABEE, JEAN-CLAUDE, FR

[71] VOSSLOH COGIFER, FR

[85] 2023-11-16

[86] 2022-05-09 (PCT/EP2022/062503)

[87] (WO2022/243088)

[30] FR (FR2105112) 2021-05-17

[21] **3,219,303**  
[13] A1

[51] **Int.Cl. C07D 471/04 (2006.01) A61K 31/194 (2006.01) A61K 31/496 (2006.01) C07C 59/265 (2006.01) C07D 213/85 (2006.01)**

[25] EN

[54] **CRYSTALLINE FORM OF TRICYCLIC DERIVATIVE COMPOUND, METHOD FOR PREPARING SAME, AND PHARMACEUTICAL COMPOSITION COMPRISING SAME**

[54] **FORME CRISTALLINE DE COMPOSE DERIVE TRICYCLIQUE, SON PROCEDE DE PREPARATION, ET COMPOSITION PHARMACEUTIQUE LA COMPRENANT**

[72] JEON, SEONG HYEON, KR

[72] AN, JUNG GI, KR

[72] KIM, JOHN, KR

[71] ONCONIC THERAPEUTICS INC., KR

[85] 2023-11-16

[86] 2022-05-18 (PCT/KR2022/007101)

[87] (WO2022/245125)

[30] KR (10-2021-0064416) 2021-05-18

[21] **3,219,304**  
[13] A1

[25] EN

[54] **REINFORCEMENT MEMBER FOR AN ENDLESS TRACK AND ENDLESS TRACK INCLUDING THE REINFORCEMENT MEMBER**

[54] **ELEMENT DE RENFORCEMENT POUR UNE COURROIE SANS FIN ET COURROIE SANS FIN COMPRENANT L'ELEMENT DE RENFORCEMENT**

[72] SAUVAGEAU, YVES, CA

[72] HALSTEAD, ERIC, CA

[72] MOISAN, MAXIME, CA

[71] SOUCY INTERNATIONAL INC., CA

[85] 2023-11-16

[86] 2023-02-28 (PCT/CA2023/050256)

[87] (WO2023/164760)

[30] US (63/316,174) 2022-03-03

[21] **3,219,305**  
[13] A1

[25] EN

[54] **DIAGNOSTIC METHODS AND COMPOSITIONS FOR TREATMENT OF CANCER**

[54] **COMPOSITIONS ET METHODES DE DIAGNOSTIC POUR LE TRAITEMENT DU CANCER**

[72] NATALE, CHRISTOPHER, US

[72] GARYANTES, TINA, US

[72] MOONEY, PATRICK, US

[71] LINNAEUS THERAPEUTICS, INC., US

[85] 2023-11-16

[86] 2022-05-18 (PCT/US2022/029771)

[87] (WO2022/245899)

[30] US (63/190,484) 2021-05-19

[21] **3,219,306**  
[13] A1

[51] **Int.Cl. H05B 47/175 (2020.01) H05B 47/105 (2020.01)**

[25] EN

[54] **REMOTELY-CONTROLLABLE LOAD CONTROL DEVICE HAVING AN ANALOG ADJUSTMENT ACTUATOR**

[54] **DISPOSITIF DE COMMANDE DE CHARGE POUVANT ETRE COMMANDE A DISTANCE DOTE D'UN ACTIONNEUR DE REGLAGE ANALOGIQUE**

[72] ALTONEN, GREGORY S., US

[72] BLAIR, EDWARD J, US

[72] DIMBERG, CHRIS, US

[72] HARTE, MATTHEW V., US

[72] INGRAM, JAMIE L., US

[72] KILLO, JASON C., US

[72] OLSEN, MATTHEW K., US

[72] ROSENBERG, ADAM, US

[72] SHIVELL, WILLIAM TAYLOR, US

[72] SWATSKY, MATTHEW J., US

[72] TWADDELL, DANIEL L., US

[72] WILZ, AARON J., US

[72] ZINN, NOAH, US

[71] LUTRON TECHNOLOGY COMPANY LLC, US

[85] 2023-11-16

[86] 2022-07-30 (PCT/US2022/038963)

[87] (WO2023/009871)

[30] US (63/227,394) 2021-07-30

[30] US (63/326,644) 2022-04-01

[21] **3,219,307**  
[13] A1

[51] **Int.Cl. G09B 23/28 (2006.01)**

[25] EN

[54] **VEIN SIMULATOR SYSTEM**

[54] **SYSTEME DE SIMULATION DE VEINE**

[72] ISAACSON, S. RAY, US

[72] HARDING, WESTON F., US

[72] BELL-CARES, AARON, US

[72] CHRISTIANSEN, NATHAN, US

[72] WILLIAMS, BRENDA, US

[72] LARSON, CALEB, US

[72] KNUTSON, ROSS, US

[72] DEVENPORT, ALYSON, US

[72] TAYLOR, DOROTHY, US

[71] BECTON, DICKINSON AND COMPANY, US

[85] 2023-11-16

[86] 2022-04-28 (PCT/US2022/026816)

[87] (WO2022/250834)

[30] US (63/194,394) 2021-05-28

[30] US (17/731,107) 2022-04-27

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[21] **3,219,308**  
[13] A1

[51] **Int.Cl. B60N 2/28 (2006.01)**  
[25] EN  
[54] **CLAMPING HOOK STRUCTURE AND SEATING DEVICE CLAMPING INCLUDING THE SAME**  
[54] **STRUCTURE DE CROCHET DE SERRAGE ET SERRAGE DE DISPOSITIF D'ASSISE LA COMPRENANT**  
[72] CHEN, YINGZHONG, CN  
[71] BAMBINO PREZIOSO SWITZERLAND AG, CH  
[85] 2023-11-16  
[86] 2022-05-17 (PCT/EP2022/063356)  
[87] (WO2022/243335)  
[30] CN (202110533326.0) 2021-05-17

[21] **3,219,309**  
[13] A1

[51] **Int.Cl. C07K 7/56 (2006.01) A61P 31/10 (2006.01)**  
[25] EN  
[54] **METHOD FOR PREPARING ANIDULAFUNGIN DERIVATIVE**  
[54] **PROCEDE DE PREPARATION D'UN DERIVE D'ANIDULAFUNGINE**  
[72] JIANG, WEI, CN  
[72] HUANG, JIAN, CN  
[72] HU, JUNQIANG, CN  
[72] CAO, WEICOU, CN  
[72] ZHOU, YINAN, CN  
[71] SHANGHAI SENHUI MEDICINE CO., LTD., CN  
[71] SHANGHAI SHENGGDI PHARMACEUTICAL CO., LTD., CN  
[71] JIANGSU HENGRUI PHARMACEUTICALS CO., LTD., CN  
[85] 2023-11-16  
[86] 2022-06-02 (PCT/CN2022/096760)  
[87] (WO2022/253297)  
[30] CN (202110617888.3) 2021-06-03

[21] **3,219,310**  
[13] A1

[51] **Int.Cl. B27N 3/02 (2006.01) B27N 3/06 (2006.01) E04C 2/16 (2006.01)**  
[25] EN  
[54] **FIRE-RETARDANT-TREATED WOOD COMPOSITE PANELS FOR EXTERIOR APPLICATIONS OR WEATHER EXPOSURE DURING CONSTRUCTIONS**  
[54] **PANNEAUX DE BOIS COMPOSITES TRAITES PAR UN AGENT IGNIFUGE POUR APPLICATIONS EXTERIEURES OU EXPOSITION AUX INTERPERIES PENDANT LA CONSTRUCTION**  
[72] NI, JIANWEN, US  
[72] ST. GERMAIN, BRIAN, US  
[72] JOHNSON, SCOTT, US  
[72] YELLE, JEFFREY, US  
[71] LOUISIANA-PACIFIC CORPORATION, US  
[85] 2023-11-16  
[86] 2022-05-18 (PCT/US2022/029903)  
[87] (WO2022/245994)  
[30] US (63/189,725) 2021-05-18  
[30] US (63/254,559) 2021-10-12

[21] **3,219,311**  
[13] A1

[51] **Int.Cl. C07D 413/04 (2006.01) A01N 43/86 (2006.01) C07D 498/10 (2006.01)**  
[25] EN  
[54] **NEW SUBSTITUTED QUINOLINES AS FUNGICIDES**  
[54] **NOUVELLES QUINOLEINES SUBSTITUEES UTILISEES COMME FONGICIDES**  
[72] GRAMMENOS, WASSILIOS, DE  
[72] MUELLER, BERND, DE  
[72] SEET, MICHAEL, DE  
[72] MERGET, BENJAMIN JUERGEN, DE  
[72] SEEBERGER, PHILIPP GEORG WERNER, DE  
[72] LE VEZOUET, RONAN, DE  
[72] LOHMANN, JAN KLAAS, DE  
[72] PETKOVA, DESISLAVA SLAVCHEVA, DE  
[72] MINAKAR, AMIN, DE  
[72] ZIEGLER, DOROTHEE SOPHIA, DE  
[72] STOESSER, TIM ALEXANDER, DE  
[72] RIEDIGER, NADINE, DE  
[72] KOCH, ANDREAS, DE  
[71] BASF SE, DE  
[85] 2023-11-16  
[86] 2022-05-10 (PCT/EP2022/062612)  
[87] (WO2022/243109)  
[30] EP (21174266.3) 2021-05-18

[21] **3,219,312**  
[13] A1

[51] **Int.Cl. A61K 45/06 (2006.01)**  
[25] EN  
[54] **PRESURGICAL PERINEURAL ADMINISTRATION OF RESINIFERATOXIN FOR REDUCTION OF POST-OPERATIVE PAIN**  
[54] **ADMINISTRATION PERINEURALE PRE-OPERATOIRE DE RESINIFERATOXINE POUR REDUIRE LA DOULEUR POST-OPERATOIRE**  
[72] NAHAMA, ALEXIS, US  
[72] CISTERNAS, ALVARO, US  
[71] SORRENTO THERAPEUTICS, INC., US  
[85] 2023-11-16  
[86] 2022-05-17 (PCT/US2022/029584)  
[87] (WO2022/245791)  
[30] US (63/189,947) 2021-05-18

[21] **3,219,313**  
[13] A1

[51] **Int.Cl. G06T 7/70 (2017.01) G06N 20/00 (2019.01) G06N 3/08 (2023.01) G07B 15/02 (2011.01)**  
[25] EN  
[54] **METHOD AND SYSTEM FOR PROVIDING A PARKING SERVICE**  
[54] **PROCEDE ET SYSTEME POUR FOURNIR UN SERVICE DE STATIONNEMENT**  
[72] JEONG, JIN HA, KR  
[72] RA, MOON SOO, KR  
[72] LEE, HEA YUN, KR  
[71] LIGHTVISION CORP., KR  
[85] 2023-11-16  
[86] 2022-05-18 (PCT/KR2022/007097)  
[87] (WO2022/255691)  
[30] KR (10-2021-0070232) 2021-05-31

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[21] **3,219,316**  
[13] A1

[51] **Int.Cl. A61K 47/68 (2017.01) C07K 16/28 (2006.01)**  
[25] EN  
[54] **PHARMACEUTICAL COMBINATION COMPRISING AN ANTI-CD205 ANTIBODY AND AN IMMUNE CHECKPOINT INHIBITOR**  
[54] **COMBINAISON PHARMACEUTIQUE COMPRENANT UN ANTICORPS ANTI-CD205 ET UN INHIBITEUR DE POINT DE CONTROLE IMMUNITAIRE**  
[72] ROHLFF, CHRISTIAN, GB  
[71] OXFORD BIOTHERAPEUTICS LTD, GB  
[85] 2023-11-16  
[86] 2022-05-19 (PCT/GB2022/051256)  
[87] (WO2022/248835)  
[30] GB (2107518.9) 2021-05-26  
[30] GB (2108387.8) 2021-06-11  
[30] GB (2109271.3) 2021-06-28

[21] **3,219,317**  
[13] A1

[51] **Int.Cl. C01B 3/36 (2006.01) C01B 3/38 (2006.01) C01B 3/50 (2006.01) C01B 3/02 (2006.01)**  
[25] EN  
[54] **AUTONOMOUS MODULAR FLARE GAS CONVERSION SYSTEMS AND METHODS**  
[54] **SYSTEMES ET PROCEDES DE CONVERSION DE GAZ DE TORCHE MODULAIRES AUTONOMES**  
[72] DEAN, JOHN ANTHONY, US  
[72] BROWNE, JOSHUA B., US  
[72] YELVINGTON, PAUL E., US  
[72] RANDOLPH, ANDREW, US  
[72] ADEKORE, BUNMI TOLU, US  
[71] OBANTARLA CORP., US  
[85] 2023-11-16  
[86] 2022-05-17 (PCT/US2022/029708)  
[87] (WO2022/245880)  
[30] US (63/189,756) 2021-05-18  
[30] US (63/213,129) 2021-06-21  
[30] US (63/197,898) 2021-06-07  
[30] US (63/304,463) 2022-01-28

[21] **3,219,319**  
[13] A1

[51] **Int.Cl. B65D 1/30 (2006.01)**  
[25] EN  
[54] **HANDHELD DUAL CONTAINER**  
[54] **RECIPIENT DOUBLE TENU A LA MAIN**  
[72] ALLEN, WARNER ALEXANDER, US  
[72] BRENNING, JOHN THOMAS, US  
[71] ALLEN, WARNER ALEXANDER, US  
[71] BRENNING, JOHN THOMAS, US  
[85] 2023-11-16  
[86] 2022-05-19 (PCT/US2022/030142)  
[87] (WO2022/246138)  
[30] US (63/190,751) 2021-05-19

[21] **3,219,320**  
[13] A1

[51] **Int.Cl. H01M 50/317 (2021.01) H01M 50/211 (2021.01) H01M 50/333 (2021.01) H01M 50/358 (2021.01)**  
[25] EN  
[54] **BATTERY MODULE AND BATTERY PACK COMPRISING SAME**  
[54] **MODULE DE BATTERIE ET BLOC-BATTERIE COMPRENANT CELUI-CI**  
[72] JANG, SUNGHWAN, KR  
[72] SEONG, JUNYEOB, KR  
[72] PARK, MYUNGKI, KR  
[72] PARK, WON KYOUNG, KR  
[71] LG ENERGY SOLUTION, LTD., KR  
[85] 2023-11-16  
[86] 2022-08-04 (PCT/KR2022/011514)  
[87] (WO2023/027372)  
[30] KR (10-2021-0112602) 2021-08-25

[21] **3,219,321**  
[13] A1

[51] **Int.Cl. A62D 3/13 (2007.01) B01J 20/34 (2006.01)**  
[25] EN  
[54] **PROCESSES FOR RECOVERING PFAS FROM SOLID SORBENTS**  
[54] **PROCEDES DE RECUPERATION DE PFAS A PARTIR DE SORBANTS SOLIDES**  
[72] LEGG, RICKY JAMES, AU  
[72] SHEARER, CAMERON, AU  
[72] HAYBALL, JOHN DOMINIC, AU  
[72] PARKINSON, LUKE ANDREW, AU  
[71] ENVIROPACIFIC SERVICES LIMITED, AU  
[85] 2023-11-16  
[86] 2022-06-07 (PCT/AU2022/050559)  
[87] (WO2022/256863)  
[30] AU (2021901696) 2021-06-07

[21] **3,219,323**  
[13] A1

[51] **Int.Cl. H01M 50/474 (2021.01) H01M 10/056 (2010.01) H01M 50/477 (2021.01) H01M 50/483 (2021.01)**  
[25] EN  
[54] **BATTERY AND ELECTROLYTES THEREFOR**  
[54] **BATTERIE ET ELECTROLYTES ASSOCIES**  
[72] THANGADURAI, VENKATARAMAN, CA  
[72] ZHOU, CHENGTIAN, CA  
[71] UTI LIMITED PARTNERSHIP, CA  
[85] 2023-11-16  
[86] 2022-05-19 (PCT/CA2022/050791)  
[87] (WO2022/241559)  
[30] US (63/191,003) 2021-05-20

[21] **3,219,324**  
[13] A1

[25] EN  
[54] **MAGNETIC TORSION SPRING FOR A MAGNETICALLY ACTUATED MECHANISM AND METHOD FOR FORMING THE SPRING**  
[54] **RESSORT DE TORSION MAGNETIQUE POUR UN MECANISME A ACTIONNEMENT MAGNETIQUE ET PROCEDE DE FORMATION DU RESSORT**  
[72] FORBRIGGER, CAMERON, CA  
[72] SCHONEWILLE, ADAM, CA  
[72] DILLER, ERIC, CA  
[71] THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORONTO, CA  
[85] 2023-11-16  
[86] 2022-05-26 (PCT/CA2022/050842)  
[87] (WO2022/246560)  
[30] US (63/193,289) 2021-05-26

[21] **3,219,325**  
[13] A1

[25] EN  
[54] **FIELD GAME**  
[54] **JEU DE TERRAIN**  
[72] PATTERSON, JAMES, US  
[71] PATTERSON, JAMES, US  
[85] 2023-11-16  
[86] 2022-05-16 (PCT/US2022/029499)  
[87] (WO2022/245755)  
[30] US (17/322,887) 2021-05-17

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[21] <b>3,219,327</b> [13] A1	[21] <b>3,219,330</b> [13] A1	[21] <b>3,219,334</b> [13] A1
<p>[51] <b>Int.Cl. G06Q 50/10 (2012.01)</b> [25] EN [54] <b>SYSTEMS AND METHODS FOR MANAGING ON-SITE MACHINES BY SPATIAL AND CONTEXTUAL INFORMATION</b> [54] <b>SYSTEMES ET PROCEDES DE GESTION DE MACHINES SUR SITE PAR DES INFORMATIONS SPATIALES ET CONTEXTUELLES</b> [72] LEWIS, ADAM, AU [72] ADCOCK, DANIEL P., AU [72] DOHERTY, THOMAS F., AU [72] HARPOUR, JOHN, AU [72] BRANDON, ALISON, AU [72] BALL, ALEXANDER, AU [72] WESLEY, CARLA, AU [71] CATERPILLAR INC., US [85] 2023-11-16 [86] 2022-05-05 (PCT/US2022/027832) [87] (WO2022/250921) [30] US (17/330,267) 2021-05-25</p>	<p>[51] <b>Int.Cl. G01R 31/3842 (2019.01)</b> [25] EN [54] <b>SYSTEMS AND METHODS FOR BATTERY PACK CHARGE BALANCING</b> [54] <b>SYSTEMES ET PROCEDES D'EQUILIBRAGE DE CHARGE DE BLOC-BATTERIE</b> [72] KONOPKA, DANIEL A., US [72] HOWLETT III, JOHN RICHARD, US [72] HOLT, JEFFREY J., US [71] IONTRA INC, US [85] 2023-11-16 [86] 2022-05-20 (PCT/US2022/030368) [87] (WO2022/246274) [30] US (63/191,138) 2021-05-20</p>	<p>[51] <b>Int.Cl. A24F 40/50 (2020.01) A24D 1/20 (2020.01) A24F 40/20 (2020.01) A24F 40/51 (2020.01) A24F 40/53 (2020.01) A24F 40/60 (2020.01) H02M 1/00 (2007.10)</b> [25] EN [54] <b>AEROSOL GENERATING DEVICE FOR PROVIDING PUFF COMPENSATION AND METHOD THEREOF</b> [54] <b>DISPOSITIF GENERANT UN AEROSOL POUR FOURNIR UNE COMPENSATION DE BOUFFEE ET SON PROCEDE</b> [72] KIM, YONG HWAN, KR [72] KIM, DONG SUNG, KR [72] LEE, SEUNG WON, KR [72] JANG, SEOK SU, KR [72] HAN, DAE NAM, KR [71] KT&amp;G CORPORATION, KR [85] 2023-11-16 [86] 2022-06-08 (PCT/KR2022/008088) [87] (WO2023/277375) [30] KR (10-2021-0085038) 2021-06-29</p>
<p>[21] <b>3,219,328</b> [13] A1 [25] EN [54] <b>MICROORGANISMS AND USES THEREOF</b> [54] <b>MICRO-ORGANISMES ET SES UTILISATIONS</b> [72] ROBERTSON, WESLEY E., GB [72] FUNKE, LOUISE F. H., GB [72] DE LA TORRE, DANIEL, GB [72] FREDENS, JULIUS, GB [72] ELLIOTT, THOMAS S., GB [72] DUNKELMANN, DANIEL L., GB [72] WILLIS, JULIAN C. W., GB [72] BEATTIE, ADAM T., GB [72] CHIN, JASON W., GB [71] UNITED KINGDOM RESEARCH AND INNOVATION, GB [85] 2023-11-16 [86] 2021-05-28 (PCT/EP2021/064391) [87] (WO2022/248061)</p>	<p>[21] <b>3,219,331</b> [13] A1 [51] <b>Int.Cl. A23C 11/10 (2021.01) A23L 33/185 (2016.01) A23L 33/21 (2016.01) A23L 11/50 (2021.01) A23L 11/60 (2021.01) A23J 1/14 (2006.01) A23J 3/14 (2006.01)</b> [25] EN [54] <b>LEGUMINOUS PROTEIN COMPOSITIONS HAVING IMPROVED ACID-GELLING PROPERTIES</b> [54] <b>COMPOSITIONS PROTEIQUES DE LEGUMINEUSES AYANT DES PROPRIETES DE GELIFICATION ACIDE AMELIOREES</b> [72] KIMMEL, JENNIFER LOUISE, US [71] ROQUETTE FRERES, FR [85] 2023-11-16 [86] 2022-05-25 (PCT/EP2022/064296) [87] (WO2022/248601) [30] US (63/192,752) 2021-05-25 [30] EP (21305774.8) 2021-06-07</p>	<p>[21] <b>3,219,335</b> [13] A1 [51] <b>Int.Cl. E02F 9/28 (2006.01)</b> [25] EN [54] <b>OVERLAPPING CUTTING EDGE TIP SYSTEM</b> [54] <b>SYSTEME DE POINTE DE BORD DE COUPE CHEVAUCHANTE</b> [72] WELLS, COREY MICHAEL, US [72] SERRURIER, DOUGLAS C., US [72] JURA, JASON GRANT, US [71] CATERPILLAR INC., US [85] 2023-11-16 [86] 2022-05-06 (PCT/US2022/028060) [87] (WO2022/250928) [30] US (17/332,076) 2021-05-27</p>
<p>[21] <b>3,219,333</b> [13] A1 [51] <b>Int.Cl. C10G 11/18 (2006.01) B01D 45/06 (2006.01) B01D 45/08 (2006.01)</b> [25] EN [54] <b>RISER SEPARATION SYSTEMS</b> [54] <b>SYSTEMES DE SEPARATION DE COLONNES MONTANTES</b> [72] MARCHANT, PAUL, US [72] SINGH, RAJ KANWAR, US [71] T.EN PROCESS TECHNOLOGY, INC., US [85] 2023-11-16 [86] 2022-05-25 (PCT/US2022/030915) [87] (WO2022/251354) [30] US (17/330,354) 2021-05-25</p>	<p>[21] <b>3,219,336</b> [13] A1 [51] <b>Int.Cl. C07K 16/28 (2006.01)</b> [25] EN [54] <b>USES OF ANTI-ICOS ANTIBODIES</b> [54] <b>UTILISATIONS D'ANTICORPS ANTI-ICOS</b> [72] SAINSON, RICHARD CHARLES ALFRED, GB [72] HOLMES, ROSALIND, DE [71] KYMAB LIMITED, GB [85] 2023-11-16 [86] 2022-05-18 (PCT/EP2022/063450) [87] (WO2022/243378) [30] US (63/190,016) 2021-05-18</p>	

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[21] **3,219,337**  
[13] A1

[51] **Int.Cl. H04L 9/40 (2022.01)**  
[25] EN  
[54] **COMMUNICATION METHOD AND APPARATUS**  
[54] **PROCEDE ET APPAREIL DE COMMUNICATION**  
[72] GONG, BO, CN  
[72] YU, JIAN, CN  
[72] LIU, CHENCHEN, CN  
[72] GAN, MING, CN  
[71] HUAWEI TECHNOLOGIES CO., LTD., CN  
[85] 2023-11-16  
[86] 2022-05-16 (PCT/CN2022/093093)  
[87] (WO2022/242605)  
[30] CN (202110554343.2) 2021-05-20

[21] **3,219,338**  
[13] A1

[51] **Int.Cl. A24F 40/50 (2020.01) A24F 40/46 (2020.01) A24F 40/51 (2020.01) A24F 40/53 (2020.01) A24F 40/60 (2020.01)**  
[25] EN  
[54] **AEROSOL GENERATING DEVICE FOR DETECTING USER'S INHALATION AND OPERATING METHOD THEREOF**  
[54] **DISPOSITIF DE GENERATION D'AEROSOL POUR DETECTER L'INHALATION D'UN UTILISATEUR ET SON PROCEDE DE FONCTIONNEMENT**  
[72] KIM, YONG HWAN, KR  
[72] KIM, DONG SUNG, KR  
[72] LIM, HUN IL, KR  
[72] JANG, SEOK SU, KR  
[71] KT&G CORPORATION, KR  
[85] 2023-11-16  
[86] 2023-01-06 (PCT/KR2023/000274)  
[87] (WO2023/132680)  
[30] KR (10-2022-0002781) 2022-01-07

[21] **3,219,339**  
[13] A1

[51] **Int.Cl. C12Q 1/6841 (2018.01)**  
[25] EN  
[54] **CO-MAPPING TRANSCRIPTIONAL STATES AND PROTEIN HISTOLOGY**  
[54] **CO-MAPPAGE D'ETATS TRANSCRIPTIONNELS ET HISTOLOGIE DES PROTEINES**  
[72] WANG, XIAO, US  
[72] ZENG, HU, US  
[72] REN, JINGYI, US  
[71] THE BROAD INSTITUTE, INC., US  
[71] MASSACHUSETTS INSTITUTE OF TECHNOLOGY, US  
[85] 2023-11-16  
[86] 2022-05-27 (PCT/US2022/031275)  
[87] (WO2022/251586)  
[30] US (63/194,536) 2021-05-28

[21] **3,219,340**  
[13] A1

[51] **Int.Cl. A61K 35/64 (2015.01) A23K 10/20 (2016.01) A23L 33/18 (2016.01) A23J 3/04 (2006.01) A61P 19/02 (2006.01)**  
[25] EN  
[54] **INSECT PROTEIN COMPOSITION FOR THE PREVENTION AND TREATMENT OF OSTEOARTHRITIS**  
[54] **COMPOSITION DE PROTEINE D'INSECTE PERMETTANT LA PREVENTION ET LE TRAITEMENT DE L'OSTEOARTHRITE**  
[72] PAUL, AMAN, NL  
[72] TOME, NURIA MARTIN, NL  
[72] CHAKRABORTY, ARPITA, NL  
[71] PROTIX B.V., NL  
[85] 2023-11-16  
[86] 2022-05-02 (PCT/NL2022/050235)  
[87] (WO2022/250526)  
[30] NL (2028315) 2021-05-28

[21] **3,219,341**  
[13] A1

[51] **Int.Cl. A61B 5/369 (2021.01)**  
[25] EN  
[54] **MAJOR DEPRESSIVE DISORDER OR PERSISTENT DEPRESSIVE DISORDER PREVENTION OR TREATMENT WITH LOW INTENSITY AND HIGH FREQUENCY MAGNETIC STIMULATION**  
[54] **PREVENTION OU TRAITEMENT D'UNE DEPRESSION MAJEURE OU D'UNE DEPRESSION PERSISTANTE PAR STIMULATION MAGNETIQUE DE FAIBLE INTENSITE ET A HAUTE FREQUENCE**  
[72] CHATILLON, ALAIN ANDRE, US  
[71] ACTIPULSE NEUROSCIENCE INC., US  
[85] 2023-11-16  
[86] 2022-05-17 (PCT/US2022/029553)  
[87] (WO2022/245768)  
[30] US (63/189,443) 2021-05-17

[21] **3,219,342**  
[13] A1

[51] **Int.Cl. B25J 13/08 (2006.01)**  
[25] EN  
[54] **ARTICLE CONVEYANCE PROCESSING SYSTEM**  
[54] **SYSTEME DE TRAITEMENT DE TRANSPORT D'ARTICLES**  
[72] UEDA, TAKASHI, JP  
[72] UEMIZO, YOSHIKI, JP  
[72] KITANO, TOMONORI, JP  
[72] IOSE, SHIN, JP  
[72] NAKATANI, KAZUYOSHI, JP  
[72] EZAWA, YOSHIMI, JP  
[71] JAPAN CASH MACHINE CO., LTD., JP  
[85] 2023-11-16  
[86] 2022-02-09 (PCT/JP2022/005172)  
[87] (WO2023/276236)  
[30] JP (2021-108378) 2021-06-30



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[21] **3,219,343**  
[13] A1

[51] **Int.Cl. A24F 40/50 (2020.01) A24F 40/46 (2020.01) A24F 40/57 (2020.01) H02M 1/00 (2007.10)**

[25] EN

[54] **AEROSOL GENERATING DEVICE FOR PREHEATING AEROSOL-GENERATING ARTICLE AND OPERATING METHOD THEREOF**

[54] **DISPOSITIF DE GENERATION D'AEROSOL POUR PRECHAUFFER UN ARTICLE DE GENERATION D'AEROSOL ET SON PROCEDE DE FONCTIONNEMENT**

[72] KIM, YONG HWAN, KR  
[72] JANG, SEOK SU, KR  
[72] KIM, DONG SUNG, KR  
[72] LIM, HUN IL, KR  
[71] KT&G CORPORATION, KR  
[85] 2023-11-16  
[86] 2023-01-19 (PCT/KR2023/000943)  
[87] (WO2023/140646)  
[30] KR (10-2022-0007977) 2022-01-19

[21] **3,219,344**  
[13] A1

[51] **Int.Cl. A61F 13/49 (2006.01) A61F 13/53 (2006.01)**

[25] EN

[54] **A BODY-CONFORMING DISPOSABLE PANT-TYPE ARTICLE**

[54] **ARTICLE DE TYPE CULOTTE JETABLE CONFORME AU CORPS**

[72] BACK, LUCAS, SE  
[72] STENHOLM, FANNY, SE  
[72] WALLIN, HELENA, SE  
[71] ESSITY HYGIENE AND HEALTH AKTIEBOLAG, SE  
[85] 2023-11-16  
[86] 2021-06-09 (PCT/EP2021/065376)  
[87] (WO2022/258160)

[21] **3,219,345**  
[13] A1

[51] **Int.Cl. C07D 471/10 (2006.01) C07D 209/54 (2006.01)**

[25] EN

[54] **SPIROINDOLINONE COMPOUNDS AS KV1.3 POTASSIUM SHAKER CHANNEL BLOCKERS**

[54] **COMPOSES SPIROINDOLINONES UTILISES COMME BLOQUEURS DES CANAUX POTASSIQUES SKAKER KV1.3**

[72] GIORDANETTO, FABRIZIO, US  
[72] JENSEN, MORTEN OSTERGAARD, DK  
[72] JOGINI, VISHWANATH, IN  
[72] SNOW, ROGER JOHN, US  
[71] D.E. SHAW RESEARCH, LLC, US  
[85] 2023-11-16  
[86] 2022-05-27 (PCT/US2022/031229)  
[87] (WO2022/251561)  
[30] US (63/194,599) 2021-05-28

[21] **3,219,346**  
[13] A1

[51] **Int.Cl. A21D 13/45 (2017.01) A21D 13/47 (2017.01)**

[25] EN

[54] **WAFER FOR FOODSTUFF PRODUCTS**

[54] **TRANCHE POUR PRODUITS ALIMENAIRES**

[72] RATTO, GABRIELE, IT  
[71] SOREMARTEC S.A., LU  
[85] 2023-11-16  
[86] 2022-05-16 (PCT/IB2022/054528)  
[87] (WO2022/243837)  
[30] IT (102021000013268) 2021-05-21

[21] **3,219,347**  
[13] A1

[25] EN

[54] **CO2 ENRICHMENT PROCESSING SYSTEM AND METHOD**

[54] **SYSTEME ET PROCEDE DE TRAITEMENT D'ENRICHISSEMENT EN CO2**

[72] BAXTER, LARRY L., US  
[72] BURT, STEPHANIE, US  
[72] DORSI, CATHERINE, US  
[72] VIPPERLA, RAVIKUMAR, US  
[71] CHART ENERGY & CHEMICALS, INC., US  
[85] 2023-11-16  
[86] 2022-06-16 (PCT/US2022/033755)  
[87] (WO2022/266301)  
[30] US (63/211,182) 2021-06-16

[21] **3,219,348**  
[13] A1

[51] **Int.Cl. C07D 403/12 (2006.01) A61K 31/497 (2006.01) C07D 401/14 (2006.01)**

[25] EN

[54] **CHECKPOINT KINASE 1 (CHK1) INHIBITORS AND USES THEREOF**

[54] **INHIBITEURS DE LA CHECKPOINT KINASE 1 (CHK1) ET LEURS UTILISATIONS**

[72] PINKERTON, ANTHONY B., US  
[72] MEYER, STEPHEN TODD, US  
[72] MAUGER, JACQUES, US  
[72] TRUONG, YEN PHAM HONG, US  
[72] ELSDON, RACHELLE JANETTE, US  
[71] BOUNDLESS BIO, INC., US  
[85] 2023-11-16  
[86] 2022-05-26 (PCT/US2022/031141)  
[87] (WO2022/251502)  
[30] US (63/193,990) 2021-05-27

[21] **3,219,349**  
[13] A1

[51] **Int.Cl. A01N 63/20 (2020.01) A01N 37/40 (2006.01) A01N 43/08 (2006.01)**

[25] EN

[54] **DISINFECTION COMPOSITION**

[54] **COMPOSITION DE DESINFECTION**

[72] CHEPTENE, VICTORIA, IT  
[72] OLIVA, MARCO, IT  
[72] RIERA GINER, MONTSERRAT, ES  
[72] GARCIA SUBIRATS, MARIA, ES  
[71] ZOBELE HOLDING, S.P.A., IT  
[85] 2023-11-16  
[86] 2022-04-29 (PCT/EP2022/061533)  
[87] (WO2022/243012)  
[30] EP (21174089.9) 2021-05-17

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[21] **3,219,350**  
[13] A1

[51] **Int.Cl. B01F 23/237 (2022.01) B01F 23/451 (2022.01) B01F 35/82 (2022.01) B01F 35/83 (2022.01) G05D 9/12 (2006.01)**

[25] EN

[54] **REGULATION OF ONSITE PEROXIDE GENERATION FOR IMPROVED PEROXONE ADVANCED OXIDATIVE PROCESS CONTROL**

[54] **REGULATION DE LA GENERATION DE PEROXYDE SUR SITE POUR UN MEILLEUR CONTROLE DU PROCESSUS OXYDATIF AVANCE DE PEROXONE**

[72] GRIFFIS, JOSHUA, US  
[72] DUKES, SIMON P., US  
[72] SATTERFIELD, BEN, US  
[72] YANG, CHEN, US  
[72] GU, GEORGE Y., US  
[71] EVOQUA WATER TECHNOLOGIES LLC, US

[85] 2023-11-16  
[86] 2022-05-20 (PCT/US2022/030258)  
[87] (WO2022/246201)  
[30] US (63/190,960) 2021-05-20  
[30] US (63/192,824) 2021-05-25

[21] **3,219,351**  
[13] A1

[25] FR

[54] **IMPROVED PORTABLE SUBSTANCE-INJECTION DEVICE**

[54] **DISPOSITIF PORTATIF D'INJECTION D'UNE SUBSTANCE PERFECTIONNE**

[72] MARS, JULIE, FR  
[72] L'HARIDON, DEVAN, FR  
[72] SALAUN, DAMIEN, FR  
[71] DESVAC, FR

[85] 2023-11-16  
[86] 2022-05-09 (PCT/FR2022/050878)  
[87] (WO2022/243620)  
[30] EP (21305652.6) 2021-05-18

[21] **3,219,352**  
[13] A1

[51] **Int.Cl. A61K 35/17 (2015.01)**

[25] EN

[54] **HYPOIMMUNOGENIC RHD NEGATIVE PRIMARY T CELLS LYMPHOCYTES T PRIMAIRES NEGATIFS RHD HYPOIMMUNOGENES**

[72] SCHREPFFER, SONJA, US  
[71] SANA BIOTECHNOLOGY, INC., US

[85] 2023-11-16  
[86] 2022-05-20 (PCT/US2022/030394)  
[87] (WO2022/246293)  
[30] US (63/190,685) 2021-05-19  
[30] US (63/255,803) 2021-10-14

[21] **3,219,353**  
[13] A1

[25] EN

[54] **TECHNIQUES FOR PLACING IMPLANTABLE ELECTRODES TO TREAT SLEEP APNEA, AND ASSOCIATED SYSTEMS**

[54] **TECHNIQUES POUR PLACER DES ELECTRODES IMPLANTABLES POUR TRAITER L'APNEE DU SOMMEIL ET SYSTEMES ASSOCIES**

[72] O'CONNOR, RICHARD W., US  
[72] FAYRAM, TIMOTHY A., US  
[72] BOLING, CARL LANCE, US  
[72] LEE, CHANG YEUL, US  
[72] POTTS, DENNIS, US  
[72] PASPA, PAUL, US  
[71] INVICTA MEDICAL, INC., US

[85] 2023-11-16  
[86] 2022-05-19 (PCT/US2022/030131)  
[87] (WO2022/246129)  
[30] US (63/191,240) 2021-05-20  
[30] US (63/220,355) 2021-07-09

[21] **3,219,354**  
[13] A1

[51] **Int.Cl. G16H 50/20 (2018.01) G16B 20/00 (2019.01)**

[25] EN

[54] **BIOMARKERS FOR DIAGNOSING OVARIAN CANCER**

[54] **BIOMARQUEURS POUR LE DIAGNOSTIC DU CANCER DE L'OVAIRE**

[72] SERIE, DANIEL, US  
[72] PICKERING, CHAD EAGLE, US  
[72] RAMACHANDRAN, PRASANNA, US  
[72] XU, GEGE, US  
[71] VENN BIOSCIENCES CORPORATION, US

[85] 2023-11-16  
[86] 2022-05-18 (PCT/US2022/072395)  
[87] (WO2022/246416)  
[30] US (63/190,141) 2021-05-18  
[30] US (63/307,009) 2022-02-04

[21] **3,219,355**  
[13] A1

[25] EN

[54] **MICROWAVE WASTE HEATING SYSTEM AND RELATED FEATURES**

[54] **SYSTEME DE CHAUFFAGE DE DECHETS A MICRO-ONDES ET CARACTERISTIQUES ASSOCIEES**

[72] FREDERIXON, DREW J., US  
[72] REINKE, GERALD H., US  
[72] HEHIR, JACOB G., US  
[71] A.L.M HOLDING COMPANY, US

[85] 2023-11-16  
[86] 2021-05-19 (PCT/US2021/033145)  
[87] (WO2022/245348)

[21] **3,219,356**  
[13] A1

[51] **Int.Cl. E04H 4/12 (2006.01) E04H 4/14 (2006.01)**

[25] EN

[54] **SWIM SPA JET PROPULSION SYSTEMS AND METHODS**

[54] **SYSTEMES ET PROCEDES DE PROPULSION PAR JET DE SPA DE NAGE**

[72] SANTOS, ROBERT, US  
[72] EDDINGTON, RICHARD, US  
[72] SMAIL, EVAN, US  
[72] MCLANE, MARK, US  
[71] BULLFROG INTERNATIONAL, LC, US

[85] 2023-11-16  
[86] 2023-03-14 (PCT/US2023/015207)  
[87] (WO2023/177679)  
[30] US (63/319,548) 2022-03-14

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[21] **3,219,357**  
[13] A1

[51] **Int.Cl. A61H 19/00 (2006.01)**  
[25] EN  
[54] **SUCTION-BASED ATTACHMENT SYSTEM FOR SEXUAL STIMULATION**  
[54] **SYSTEME DE FIXATION A BASE D'ASPIRATION POUR STIMULATION SEXUELLE**  
[72] BROMS, KRISTIAN, US  
[71] PD PRODUCTS LLC, US  
[85] 2023-11-17  
[86] 2022-02-11 (PCT/US2022/016194)  
[87] (WO2022/245412)  
[30] US (17/326,200) 2021-05-20

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[21] **3,219,358**  
[13] A1

[51] **Int.Cl. G06V 20/56 (2022.01) G06V 20/52 (2022.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR MACHINE LEARNING ENHANCED RAILWAY CONDITION MONITORING, ASSESSMENT AND PREDICTION**  
[54] **SYSTEMES ET PROCEDES DE SURVEILLANCE, D'EVALUATION ET DE PREDICTION DE CONDITION DE CHEMIN DE FER AMELIOREE PAR APPRENTISSAGE AUTOMATIQUE**  
[72] LIU, XIANG, US  
[71] RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY, US  
[85] 2023-11-17  
[86] 2022-05-18 (PCT/US2022/029823)  
[87] (WO2022/245936)  
[30] US (63/190,490) 2021-05-19

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[21] **3,219,359**  
[13] A1

[51] **Int.Cl. C12N 15/867 (2006.01) A61K 48/00 (2006.01) A61P 7/00 (2006.01) C12N 5/10 (2006.01)**  
[25] EN  
[54] **LENTIVIRAL VECTORS AND USES THEREOF**  
[54] **VECTEURS LENTIVIRAUX ET UTILISATIONS DE CEUX-CI**  
[72] BUEREN RONCERO, JUAN ANTONIO, ES  
[72] NAVARRO ORDONEZ, SUSANA, ES  
[72] GIMENEZ MARTINEZ, YARI, ES  
[72] PALACIOS PEREZ, MANUEL, ES  
[72] LAFONTAINE, DENIS, BE  
[71] CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS, O.A., M.P. (CIEMAT), ES

[71] CONSORCIO CENTRO DE INVESTIGACION BIOMEDICA EN RED, ES  
[71] FUNDACION INSTITUTO DE INVESTIGACION SANITARIA FUNDACION JIMENEZ DIAZ (FIIS-FJD), ES  
[71] UNIVERSITE LIBRE DE BRUXELLES, BE  
[71] FUNDACION PARA LA INVESTIGACION BIOMEDICA DEL HOSPITAL INFANTIL UNIVERSITARIO NINO JESUS, ES  
[85] 2023-11-06  
[86] 2021-05-13 (PCT/ES2021/070343)  
[87] (WO2022/238595)

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[21] **3,219,360**  
[13] A1

[51] **Int.Cl. C07K 16/24 (2006.01) A61K 39/00 (2006.01) C07K 16/46 (2006.01)**  
[25] EN  
[54] **BISPECIFIC ANTIBODIES FOR USE IN TREATMENT OF HIDRADENITIS SUPPURATIVA**  
[54] **ANTICORPS BISPECIFIQUES DESTINES A ETRE UTILISES DANS LE TRAITEMENT DE L'HIDROSADENITE SUPPUREE**  
[72] BECK, SABINE, CH  
[72] KIFFE, MICHAEL, CH  
[72] KOVARIK, JIRI, CH  
[72] LOESCHE, CHRISTIAN, CH  
[72] RODRIGUES, MARGARIDA, PT  
[72] STEIN, RICHARD, CH  
[72] TANG, YU, US  
[72] WALDRON-LYNCH, FRANK, US  
[71] NOVARTIS AG, CH  
[85] 2023-11-06  
[86] 2022-06-20 (PCT/IB2022/055690)  
[87] (WO2022/269451)  
[30] US (63/213,686) 2021-06-22  
[30] US (63/223,479) 2021-07-19

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[21] **3,219,362**  
[13] A1

[51] **Int.Cl. F16B 5/00 (2006.01) A47B 47/04 (2006.01) F16B 12/10 (2006.01) F16B 12/24 (2006.01) F16B 13/00 (2006.01)**  
[25] EN  
[54] **MECHANICAL CONNECTION ARRANGEMENT FOR PANELS**  
[54] **AGENCEMENT DE LIAISON MECANIQUE POUR PANNEAUX**  
[72] SVENSSON, JOHAN, SE  
[71] VALINGE INNOVATION AB, SE  
[85] 2023-11-06  
[86] 2022-03-31 (PCT/SE2022/050326)  
[87] (WO2022/260567)  
[30] SE (2150752-0) 2021-06-11

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[21] **3,219,363**  
[13] A1

[51] **Int.Cl. H05K 7/20 (2006.01)**  
[25] EN  
[54] **LIQUID IMMERSION COOLING TANK WITH VARIABLE FLOW FOR HIGH DENSITY COMPUTER SERVER EQUIPMENT**

[54] **RESERVOIR DE REFROIDISSEMENT PAR IMMERSION DANS UN LIQUIDE A DEBIT VARIABLE POUR EQUIPEMENT DE SERVEUR INFORMATIQUE A HAUTE DENSITE**

[72] SWEENEY, MICHAEL J., US  
[72] SELMSER, DAVID PATRICK, CA  
[72] ZWICKER, JOHN BERNARD, CA  
[72] HAIDER, SHAHREEN BEENTE, CA  
[71] TYCO FIRE & SECURITY GMBH, CH  
[85] 2023-11-06  
[86] 2022-05-06 (PCT/US2022/028153)  
[87] (WO2022/236109)  
[30] US (63/185,321) 2021-05-06  
[30] US (17/491,041) 2021-09-30

[21] **3,219,364**  
[13] A1

[51] **Int.Cl. A61K 31/496 (2006.01) A61K 45/06 (2006.01) A61P 25/24 (2006.01)**  
[25] EN  
[54] **METHOD OF TREATMENT OF DEPRESSED PATIENTS WITH POOR COGNITION AND SELECTION OF OTHER PATIENTS BENEFITING FROM A BENZYLPIPERAZINE-AMINOPYRIDINE AGENT**

[54] **METHODE DE TRAITEMENT DE PATIENTS DEPRIMES PRESENTANT UNE FAIBLE COGNITION ET SELECTION D'AUTRES PATIENTS BENEFICIAINT D'UN AGENT BENZYLPIPERAZINE-AMINOPYRIDINE**

[72] ETKIN, AMIT, US  
[72] SEGAL, DAN, US  
[72] WU, WEI, US  
[72] SHEN, LI, US  
[72] SHAH, VINIT, US  
[72] SAVITZ, ADAM, US  
[71] ALTO NEUROSCIENCE, INC., US  
[85] 2023-11-06  
[86] 2022-06-03 (PCT/US2022/032136)  
[87] (WO2022/256636)  
[30] US (63/202,254) 2021-06-03  
[30] US (63/263,168) 2021-10-28  
[30] US (63/264,269) 2021-11-18

[21] **3,219,365**  
[13] A1

[51] **Int.Cl. A23D 7/005 (2006.01) A23K 20/158 (2016.01) A23K 20/28 (2016.01) A23K 40/25 (2016.01) A23K 40/30 (2016.01) A23K 50/75 (2016.01) A23K 50/80 (2016.01) A23D 9/007 (2006.01) C11B 5/00 (2006.01)**

[25] FR  
[54] **COMPOSITION IN THE FORM OF A SUPRAMOLECULAR ARRANGEMENT INCLUDING HYDROPHILIC MOLECULES WHICH IS STABILIZED BY MINERAL PARTICLES IN A LIPID PHASE**

[54] **COMPOSITION SOUS FORME D'ORGANISATION SUPRAMOLECULAIRE INCLUANT DES MOLECULES HYDROPHILES STABILISEE PAR DES PARTICULES MINERALES DANS UNE PHASE LIPIDIQUE**

[72] EL HARRAK, ABDESLAM, FR  
[72] JIMENEZ SAELICES, CLARA, FR  
[72] MOUSTIES, CELIA, FR  
[72] CRETEL, CESAR ADRIEN CLAUDE RENE, FR  
[71] HUDDLE CORP, FR  
[85] 2023-11-07  
[86] 2022-05-12 (PCT/FR2022/050908)  
[87] (WO2022/238662)  
[30] FR (FR2105038) 2021-05-12

[21] **3,219,367**  
[13] A1

[51] **Int.Cl. F24T 10/30 (2018.01) F03G 7/04 (2006.01)**  
[25] EN  
[54] **THERMAL ENERGY STORAGE AND RETRIEVAL SYSTEM**

[54] **SYSTEME DE STOCKAGE ET DE RECUPERATION D'ENERGIE THERMIQUE**

[72] SHARMA, RABINDRANATH, CA  
[72] SHARMA, VISWANATH, CA  
[72] NARAIN, BHOPAL, CA  
[72] SHARMA, CHANDRAKANT, CA  
[72] HOSSEININEJAD, SEYEDSHAHAMALDIN, CA  
[72] SHARMA, RAJ KRISHNA, CA  
[72] FRASER, ROYDON, CA  
[72] VRSCAY, EDWARD, CA  
[72] SHARMA, MAHENDRA NAUTH, CA  
[71] SHARMA, RABINDRANATH, CA  
[71] SHARMA, VISWANATH, CA  
[71] NARAIN, BHOPAL, CA  
[71] SHARMA, CHANDRAKANT, CA  
[71] HOSSEININEJAD, SEYEDSHAHAMALDIN, CA  
[71] SHARMA, RAJ KRISHNA, CA  
[71] FRASER, ROYDON, CA  
[71] VRSCAY, EDWARD, CA  
[71] SHARMA, MAHENDRA NAUTH, CA  
[85] 2023-11-07  
[86] 2021-05-07 (PCT/US2021/031440)  
[87] (WO2022/235278)

[21] **3,219,368**  
[13] A1

[51] **Int.Cl. C08L 23/14 (2006.01)**  
[25] EN  
[54] **POLYOLEFIN COMPOSITIONS WITH HIGH DIMENSIONAL STABILITY FOR SHEET APPLICATIONS**

[54] **COMPOSITIONS POLYOLEFINIQUES PRESENTANT UNE STABILITE DIMENSIONNELLE ELEVEE POUR DES APPLICATIONS EN FEUILLE**

[72] KRAMB, RYAN, US  
[72] SCHLEY, BRYAN S., US  
[72] CECCARANI, FABIO, US  
[71] EQUICSTAR CHEMICALS, LP, US  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030295)  
[87] (WO2022/251065)  
[30] US (63/194,713) 2021-05-28

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[21] **3,219,369**  
[13] A1

[51] **Int.Cl. A61B 17/04 (2006.01) A61F 2/08 (2006.01)**  
[25] EN  
[54] **DEVICES AND METHODS FOR SURGICAL SUTURING**  
[54] **DISPOSITIFS ET METHODES DE SUTURE CHIRURGICALE**  
[72] MCCORMICK, DANIEL F., US  
[71] DAVOL INC., US  
[85] 2023-11-07  
[86] 2022-05-05 (PCT/US2022/027877)  
[87] (WO2022/235937)  
[30] US (63/185,668) 2021-05-07

[21] **3,219,370**  
[13] A1

[25] EN  
[54] **IN VITRO METHOD OF PREDICTING RUMEN DIGESTIBLE PROTEIN**  
[54] **PROCEDE IN VITRO DE PREDICTION DE PROTEINE DIGESTIBLE DANS LE RUMEN**  
[72] CHIGNELL, JEREMY, US  
[72] HASS, CATHY STALOCH, US  
[72] MARGARIA, GLADYS ETHEL, US  
[72] POYNTER, GREGORY MICHAEL, US  
[72] TELANDER, MICHAEL, US  
[72] ZEBRO, STEPHANIE, US  
[72] ZONTINI, ALESSANDRO, US  
[71] CAN TECHNOLOGIES, INC., US  
[85] 2023-11-17  
[86] 2022-05-12 (PCT/US2022/072288)  
[87] (WO2022/251779)  
[30] US (63/194,393) 2021-05-28

[21] **3,219,371**  
[13] A1

[51] **Int.Cl. B07C 5/36 (2006.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR PROVIDING AN OPERATOR INDUCED ROBOTIC PUT WALL**  
[54] **SYSTEMES ET PROCEDES POUR FOURNIR UNE PAROI DE MISE EN PLACE ROBOTIQUE ACTIONNEE PAR UN OPERATEUR**  
[72] ROMANO, JOSEPH, US  
[72] BUCK, CHRISTOPHER, US  
[72] ALLEN, THOMAS, US  
[72] GEYER, CHRISTOPHER, US  
[72] HINCHEY, VICTORIA, US  
[72] BAPTISTA, CHARLES, US  
[72] TORREY, JACOB, US  
[72] O'HERN, RYAN, US  
[72] EWART, ANDREW, US  
[72] AMEND, JOHN RICHARD, JR., US  
[72] VELAGAPUDI, PRASANNA, US  
[72] COHEN, BENJAMIN, US  
[72] LONG, GUOMING ALEX, US  
[71] BERKSHIRE GREY OPERATING COMPANY, INC., US  
[85] 2023-11-07  
[86] 2022-05-06 (PCT/US2022/028047)  
[87] (WO2022/236038)  
[30] US (63/185,546) 2021-05-07

[21] **3,219,373**  
[13] A1

[51] **Int.Cl. G01V 8/02 (2006.01) E21B 47/06 (2012.01) E21B 47/10 (2012.01) E21B 47/12 (2012.01) G01N 21/65 (2006.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR MONITORING GAS STORAGE IN UNDERGROUND RESERVOIRS**  
[54] **SYSTEMES ET PROCEDES DE SURVEILLANCE DE STOCKAGE DE GAZ DANS DES RESERVOIRS SOUTERRAINS**  
[72] ANDREWS, ALBERT BALLARD, US  
[72] SPECK, ANDREW J., US  
[72] AKKURT, RIDVAN, US  
[72] MULLINS, OLIVER C., US  
[72] TAYLOR, SHAWN DAVID, US  
[71] SCHLUMBERGER CANADA LIMITED, CA  
[85] 2023-11-07  
[86] 2022-05-06 (PCT/US2022/028064)  
[87] (WO2022/236048)  
[30] US (63/201,666) 2021-05-07

[21] **3,219,375**  
[13] A1

[25] EN  
[54] **AQUEOUS BIOLOGICAL SYSTEMS WITH REDUCED PHOSPHATE LEVELS AND METHODS OF REDUCING PHOSPHATE LEVELS**  
[54] **SYSTEMES BIOLOGIQUES AQUEUX A TAUX DE PHOSPHATE REDUITS ET PROCEDES DE REDUCTION DES TAUX DE PHOSPHATE**  
[72] KAZACHKIN, DMITRY, US  
[71] CORN PRODUCTS DEVELOPMENT, INC., US  
[85] 2023-11-17  
[86] 2022-05-25 (PCT/US2022/030803)  
[87] (WO2022/251275)  
[30] US (63/194,499) 2021-05-28

[21] **3,219,376**  
[13] A1

[51] **Int.Cl. G06Q 10/06 (2023.01) G06Q 40/08 (2012.01) G06N 20/00 (2019.01) G06N 3/04 (2023.01) G06N 3/08 (2023.01)**  
[25] EN  
[54] **RISK PROBABILITY ASSESSMENT FOR CARGO SHIPMENT OPERATIONS AND METHODS OF USE THEREOF**  
[54] **EVALUATION DE PROBABILITE DE RISQUE POUR DES OPERATIONS D'EXPEDITION DE MARCHANDISES, ET PROCEDES POUR SON UTILISATION**  
[72] KALINSKI, CHRIS, US  
[71] REDKIK OY, FI  
[71] KALINSKI, CHRIS, US  
[85] 2023-11-07  
[86] 2022-05-06 (PCT/US2022/028077)  
[87] (WO2022/236059)  
[30] US (63/185,593) 2021-05-07

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[21] **3,219,377**  
[13] A1

[51] **Int.Cl. A61B 17/08 (2006.01)**  
[25] EN  
[54] **METHOD AND DEVICE FOR TISSUE DEFECT CLOSURE**  
[54] **PROCEDE ET DISPOSITIF DE FERMETURE D'UN DEFAUT TISSULAIRE**  
[72] MCCORMICK, DANIEL F., US  
[72] SPINNEY, CUIXIANG QU, US  
[71] DAVOL INC., US  
[85] 2023-11-07  
[86] 2022-05-06 (PCT/US2022/028087)  
[87] (WO2022/236066)  
[30] US (63/185,685) 2021-05-07

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[21] **3,219,379**  
[13] A1

[51] **Int.Cl. A61B 1/00 (2006.01) A61B 90/70 (2016.01) A61B 1/12 (2006.01) A61M 39/10 (2006.01) A61M 39/16 (2006.01)**  
[25] EN  
[54] **MEDICAL DEVICE PORT CONNECTORS**  
[54] **CONNECTEURS D'ORIFICE DE DISPOSITIF MEDICAL**  
[72] RANDHAWA, NISHANT, AU  
[72] SPARGO, GAVIN, AU  
[72] THRASOU, PANAGIOTIS, AU  
[72] PIDCOCK, DAVID ANTHONY, AU  
[71] SABAN VENTURES PTY LIMITED, AU  
[85] 2023-11-07  
[86] 2022-06-03 (PCT/AU2022/050547)  
[87] (WO2022/251920)  
[30] AU (2021901655) 2021-06-03

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[21] **3,219,380**  
[13] A1

[51] **Int.Cl. A61B 90/98 (2016.01) A61B 90/00 (2016.01) A61B 90/70 (2016.01) A61L 2/24 (2006.01) A61L 2/28 (2006.01) B08B 9/032 (2006.01) G01F 1/00 (2022.01) G01F 25/00 (2022.01) G01L 13/00 (2006.01) G01L 27/00 (2006.01) G01M 10/00 (2006.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR THE IDENTIFICATION, EVALUATION, AND/OR CLOSED-LOOP REPROCESSING OF LUMENS**  
[54] **SYSTEMES ET PROCEDES POUR L'IDENTIFICATION, L'EVALUATION ET/OU LE RETRAITEMENT EN CIRCUIT FERME DE LUMIERES**  
[72] SPARGO, GAVIN, AU  
[72] KAYVANPOUR, AMIR HOSSEIN, AU  
[72] NABIPOOR, MOHSEN, AU  
[71] SABAN VENTURES PTY LIMITED, AU  
[85] 2023-11-07  
[86] 2022-06-09 (PCT/AU2022/050567)  
[87] (WO2022/256870)  
[30] AU (2021901734) 2021-06-09

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[21] **3,219,381**  
[13] A1

[51] **Int.Cl. H05B 47/115 (2020.01)**  
[25] EN  
[54] **OCCUPANT DETECTION DEVICE**  
[54] **DISPOSITIF DE DETECTION D'OCCUPANT**  
[72] BAKER, RHODES B., US  
[72] CASEY, CRAIG ALAN, US  
[72] SARAODE, SHILPA, US  
[72] STEINER, JAMES P., US  
[71] LUTRON TECHNOLOGY COMPANY LLC, US  
[85] 2023-11-17  
[86] 2022-10-22 (PCT/US2022/047507)  
[87] (WO2023/069766)  
[30] US (63/262,891) 2021-10-22

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[21] **3,219,382**  
[13] A1

[51] **Int.Cl. C01C 1/04 (2006.01) C25B 1/042 (2021.01)**  
[25] EN  
[54] **METHOD AND PLANT FOR PRODUCING AMMONIA**  
[54] **METHODE ET INSTALLATION DE PRODUCTION D'AMMONIAC**  
[72] LAUTENSCHLAGER, TOBIAS, DE  
[71] LINDE GMBH, DE  
[85] 2023-11-17  
[86] 2022-05-09 (PCT/EP2022/025213)  
[87] (WO2022/253456)  
[30] EP (21020288.3) 2021-06-01

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[21] **3,219,383**  
[13] A1

[51] **Int.Cl. B08B 9/032 (2006.01) A61B 90/70 (2016.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR CLEANING LUMENS WITH FLUIDIC COMPOSITIONS**  
[54] **SYSTEMES ET PROCEDES DE NETTOYAGE DE LUMENS AVEC DES COMPOSITIONS FLUIDIQUES**  
[72] KAYVANPOUR, AMIR HOSSEIN, AU  
[72] NABIPOOR, MOHSEN, AU  
[72] SPARGO, GAVIN, AU  
[72] BARKER, TAYLOR, AU  
[71] SABAN VENTURES PTY LIMITED, AU  
[85] 2023-11-07  
[86] 2022-06-09 (PCT/AU2022/050568)  
[87] (WO2022/256871)  
[30] AU (2021901729) 2021-06-09

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[21] <b>3,219,384</b> [13] A1	[21] <b>3,219,386</b> [13] A1	[21] <b>3,219,388</b> [13] A1
<p>[51] <b>Int.Cl. A01N 43/653 (2006.01) A01N 25/32 (2006.01) A01N 37/48 (2006.01) A01N 43/12 (2006.01) A01N 43/38 (2006.01) A01N 43/40 (2006.01) A01N 43/54 (2006.01) A01N 43/56 (2006.01) A01N 43/80 (2006.01) A01N 43/82 (2006.01) A01N 43/84 (2006.01) A01N 43/90 (2006.01) A01N 47/36 (2006.01) A01N 57/20 (2006.01) A01P 13/00 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>HERBICIDE/SAFENER COMBINATION BASED ON SAFENERS FROM THE CLASS OF SUBSTITUTED [(1,5-DIPHENYL-1H-1,2,4-TRIAZOL-3-YL)OXY]ACETIC ACIDS AND THEIR SALTS</b></p> <p>[54] <b>COMBINAISON HERBICIDE(S)/PHYTOPROTECTEUR(S) A BASE DE PHYTOPROTECTEURS DE LA CLASSE DES ACIDES [(1,5-DIPHENYL-1H-1,2,4-TRIAZOL-3-YL)OXY] ACETIQUES SUBSTITUES ET LEURS SELS</b></p> <p>[72] DITTGEN, JAN, DE [72] MULLER, THOMAS, DE [72] REINGRUBER, ANNA MARIA, DE [72] LORENTZ, LOTHAR, DE [72] HAAF, KLAUS BERNHARD, DE [72] TRABOLD, KLAUS, DE [72] MENNE, HUBERT, DE [72] PEREZ CATALAN, JULIO, DE [72] SCHMIDT, MATHIAS, DE [71] BAYER AKTIENGESELLSCHAFT, DE [85] 2023-11-07 [86] 2022-05-04 (PCT/EP2022/061959) [87] (WO2022/238194) [30] EP (21172971.0) 2021-05-10</p>	<p>[51] <b>Int.Cl. E02F 9/26 (2006.01) E02F 9/28 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>GROUND ENGAGING TOOL WEAR AND LOSS DETECTION SYSTEM AND METHOD</b></p> <p>[54] <b>SYSTEME ET PROCEDURE DE DETECTION DE PERTE ET D'USURE D'OUTIL DE TERRASSEMENT</b></p> <p>[72] MIANZO, LAWRENCE A., US [72] OBLAK, TOD A., US [72] PLOUZEK, JOHN M., US [72] WISE, RAYMOND A., US [72] MATHEW, SHAWN N., US [71] CATERPILLAR INC., US [85] 2023-11-17 [86] 2022-05-16 (PCT/US2022/029386) [87] (WO2022/256163) [30] US (17/335,835) 2021-06-01</p>	<p>[51] <b>Int.Cl. C07K 16/46 (2006.01) A61K 38/17 (2006.01) A61K 39/395 (2006.01) A61P 35/00 (2006.01) C07K 16/00 (2006.01) C07K 16/28 (2006.01) C12N 15/12 (2006.01) C12N 15/62 (2006.01) G01N 33/53 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>ANTIGEN-BINDING MOLECULE MOLECULE DE LIAISON A L'ANTIGENE</b></p> <p>[72] YING, HUA, CN [72] HU, QIYUE, CN [72] JIN, XINSHENG, CN [72] SHI, JINPING, CN [72] ZHANG, LING, CN [72] MAO, LANGYONG, CN [72] YE, XIN, CN [72] TAO, WEIKANG, CN [71] JIANGSU HENGRUI PHARMACEUTICALS CO., LTD., CN [71] SHANGHAI HENGRUI PHARMACEUTICAL CO., LTD., CN [85] 2023-11-07 [86] 2022-05-12 (PCT/CN2022/092529) [87] (WO2022/237882) [30] CN (202110527339.7) 2021-05-14</p>
	[21] <b>3,219,387</b> [13] A1	[21] <b>3,219,389</b> [13] A1
	<p>[51] <b>Int.Cl. C07C 13/44 (2006.01) C07C 49/633 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>METHODS OF MAKING ALKYLATED METALLOCENES HAVING ONE OR MORE TETRAHYDROPENTALENYL GROUPS</b></p> <p>[54] <b>PROCEDES DE FABRICATION DE METALLOCENES ALKYLES AYANT UN OU PLUSIEURS GROUPES TETRAHYDROPENTALENYLE</b></p> <p>[72] PADILLA-ACEVEDO, ANGELA I., US [72] BRENNAN, TAMARA L., US [72] DUVVURI, KRISHNAJA, US [72] OGAWA, KELLI A., US [71] DOW GLOBAL TECHNOLOGIES LLC, US [85] 2023-11-17 [86] 2022-06-01 (PCT/US2022/031705) [87] (WO2022/256363) [30] US (63/195,797) 2021-06-02</p>	<p>[51] <b>Int.Cl. C08F 255/02 (2006.01) C08F 291/18 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>HIGH MELT STRENGTH POLYPROPYLENE</b></p> <p>[54] <b>POLYPROPYLENE A HAUTE RESISTANCE A L'ETAT FONDU</b></p> <p>[72] REICHEL, NORBERT, AT [71] BOREALIS AG, AT [85] 2023-11-07 [86] 2022-05-12 (PCT/EP2022/062865) [87] (WO2022/238520) [30] EP (21173666.5) 2021-05-12</p>

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[21] **3,219,392**  
[13] A1

[51] **Int.Cl. C08J 9/30 (2006.01) C08G 63/00 (2006.01) C08G 77/00 (2006.01) C08J 9/00 (2006.01) C08J 9/02 (2006.01)**

[25] EN

[54] **PROCESS FOR MANUFACTURING A THERMOSET POLYMER FOAM AND POLYMER FOAM**

[54] **PROCEDE DE FABRICATION D'UNE MOUSSE POLYMERE THERMODURCIE ET MOUSSE POLYMERE**

[72] THYS, FERRY, NL

[72] WIEGERSMA, TIJMEN, NL

[72] GRUNBAUER, HENRI JACOBUS MARIE, NL

[72] NOORDZIJ, GEERT JAN, NL

[71] PLANTICS HOLDING B.V., NL

[85] 2023-11-07

[86] 2022-05-17 (PCT/EP2022/063288)

[87] (WO2022/243293)

[30] EP (21174040.2) 2021-05-17

[21] **3,219,393**  
[13] A1

[51] **Int.Cl. A61B 17/15 (2006.01) A61B 17/17 (2006.01) A61B 17/72 (2006.01) A61B 17/56 (2006.01)**

[25] EN

[54] **CAPITAL FRAGMENT GUIDE AND RELATED METHODS**

[54] **GUIDE DE FRAGMENT DE CAPITAL ET PROCEDES ASSOCIES**

[72] BREGMAN, PETER, US

[72] HOLLIS, CHAD, US

[72] MELKENT, TONY, US

[71] CROSSROADS EXTREMITY SYSTEMS, LLC, US

[85] 2023-11-07

[86] 2022-05-10 (PCT/IB2022/054351)

[87] (WO2022/238909)

[30] US (63/186,720) 2021-05-10

[21] **3,219,395**  
[13] A1

[51] **Int.Cl. A01K 29/00 (2006.01)**

[25] EN

[54] **ANIMAL HUSBANDRY SYSTEM**

[54] **SYSTEME D'ELEVAGE D'ANIMAUX**

[72] VAN DEN BERG, KAREL, NL

[72] PASTOOR, JAN LAMBERTUS, NL

[72] MEEUWESEN, ADRIANUS CORNELIS MARIA, NL

[72] VAN ADRICHEM, PAULUS JACOBUS MARIA, NL

[71] LELY PATENT N.V., NL

[85] 2023-11-07

[86] 2022-05-19 (PCT/IB2022/054676)

[87] (WO2022/243927)

[30] NL (2028275) 2021-05-21

[21] **3,219,396**  
[13] A1

[51] **Int.Cl. B01D 63/02 (2006.01) A61M 1/16 (2006.01) B01D 69/08 (2006.01)**

[25] EN

[54] **HOLLOW-FIBRE MEMBRANE FILTER HAVING IMPROVED SEPARATION PROPERTIES**

[54] **FILTRE A MEMBRANES A FIBRES CREUSES PRESENTANT DES PROPRIETES DE SEPARATION AMELIOREES**

[72] GASTAUER, PAUL, DE

[72] KUGELMANN, FRANZ, DE

[72] PAUL, MICHAEL, DE

[72] RUFFING, ANDREAS, DE

[72] VEIT, TOBIAS, DE

[71] FRESENIUS MEDICAL CARE DEUTSCHLAND GMBH, DE

[85] 2023-11-07

[86] 2022-05-10 (PCT/EP2022/062580)

[87] (WO2022/238373)

[30] DE (10 2021 112 314.3) 2021-05-11

[21] **3,219,397**  
[13] A1

[51] **Int.Cl. C07D 493/06 (2006.01) A61K 31/352 (2006.01) A61K 31/4178 (2006.01) A61P 31/14 (2006.01)**

[25] EN

[54] **TETRACYCLIC COMPOUNDS FOR THE TREATMENT OF ZIKA VIRUS INFECTION**

[54] **COMPOSES TETRACYCLIQUES POUR LE TRAITEMENT D'UNE INFECTION PAR LE VIRUS ZIKA**

[72] CHIN, ELBERT, US

[72] LINK, JOHN O., US

[72] ROBERTS, EZRA, US

[72] TAYLOR, JAMES G., US

[72] YANG, ZHENG-YU, US

[71] GILEAD SCIENCES, INC., US

[85] 2023-11-07

[86] 2022-05-19 (PCT/US2022/030040)

[87] (WO2022/246072)

[30] US (63/191,634) 2021-05-21

[21] **3,219,399**  
[13] A1

[51] **Int.Cl. B01D 63/02 (2006.01) A61M 1/16 (2006.01) B01D 63/08 (2006.01)**

[25] EN

[54] **HOLLOW-FIBRE MEMBRANE FILTER HAVING IMPROVED SEPARATION PROPERTIES**

[54] **FILTRE A MEMBRANES A FIBRES CREUSES PRESENTANT DES PROPRIETES DE SEPARATION AMELIOREES**

[72] GASTAUER, PAUL, DE

[72] KUGELMANN, FRANZ, DE

[72] PAUL, MICHAEL, DE

[72] RUFFING, ANDREAS, DE

[72] VEIT, TOBIAS, DE

[71] FRESENIUS MEDICAL CARE DEUTSCHLAND GMBH, DE

[85] 2023-11-07

[86] 2022-05-10 (PCT/EP2022/062581)

[87] (WO2022/238374)

[30] DE (10 2021 112 315.1) 2021-05-11



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[21] **3,219,401**  
[13] A1

[51] **Int.Cl. C07K 16/28 (2006.01) A61K 9/00 (2006.01) A61K 31/573 (2006.01) A61K 45/06 (2006.01) A61P 17/00 (2006.01) A61P 19/02 (2006.01) A61P 29/00 (2006.01) A61P 37/00 (2006.01) G01N 33/50 (2006.01)**

[25] EN

[54] **INHIBITOR OF TYPE 1 INTERFERON RECEPTOR STEROID SPARING IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS**

[54] **INHIBITEUR DE LA RESERVE DE STEROIDES DU RECEPTEUR DE L'INTERFERON DE TYPE 1 CHEZ DES PATIENTS ATTEINTS DE LUPUS ERYTHEMATEUX DISSEMINÉ**

[72] ABREU, GABRIEL, SE  
[72] TUMMALA, RAJENDRA, US  
[71] ASTRAZENECA AB, SE  
[85] 2023-11-07  
[86] 2022-05-11 (PCT/EP2022/062770)  
[87] (WO2022/238479)  
[30] US (63/187,485) 2021-05-12  
[30] US (63/230,113) 2021-08-06

[21] **3,219,403**  
[13] A1

[51] **Int.Cl. H01M 10/0585 (2010.01) H01M 50/105 (2021.01) H01M 10/04 (2006.01)**

[25] EN

[54] **ELECTROCHEMICAL CELL WITH SEALANT**

[54] **CELLULE ELECTROCHIMIQUE AVEC AGENT D'ÉTANCHEITE**

[72] CHEON, SANG EUN, SE  
[72] KIM, YONG KYOUNG, SE  
[72] POTIN, NICOLAS, SE  
[72] DE VELASCO BERMUDEZ, VALERIA, SE  
[72] GRUNDSTROM, BILLY, SE  
[71] NORTHVOLT AB, SE  
[85] 2023-11-07  
[86] 2022-05-11 (PCT/EP2022/062853)  
[87] (WO2022/238514)  
[30] EP (21173700.2) 2021-05-12

[21] **3,219,405**  
[13] A1

[25] EN

[54] **WOUND CLOSURE DEVICE**

[54] **DISPOSITIF DE FERMETURE DE PLAIE**

[72] HAYWARD, ALISTAIR, GB  
[71] ADVANCED MEDICAL SOLUTIONS LIMITED, GB  
[85] 2023-11-17  
[86] 2022-05-18 (PCT/GB2022/051247)  
[87] (WO2022/243675)  
[30] GB (2107181.6) 2021-05-19

[21] **3,219,406**  
[13] A1

[51] **Int.Cl. H01R 24/38 (2011.01)**

[25] EN

[54] **LOW-COST MINIATURIZED VERTICAL COAXIAL CABLE TO PCB TRANSITION FOR USE IN ULTRA-DENSE BASE STATION ANTENNAS**

[54] **CABLE COAXIAL VERTICAL MINIATURISÉ À FAIBLE COUT POUR TRANSITION DE CARTE DE CIRCUIT IMPRIMÉ DESTINÉE À ÊTRE UTILISÉE DANS DES ANTENNES DE STATION DE BASE ULTRA-DENSES**

[72] VAKIL, ZANKAR, US  
[72] WAYTON, EVAN, US  
[72] TIWARI, ANOOP, US  
[71] JOHN MEZZALINGUA ASSOCIATES, LLC, US  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030244)  
[87] (WO2022/246192)  
[30] US (63/191,016) 2021-05-20

[21] **3,219,410**  
[13] A1

[25] EN

[54] **PRE-EQUALIZER AT THE TERMINAL TO COMPENSATE FOR FORWARD LINK DISTORTIONS**

[54] **PRE-ÉGALISEUR AU NIVEAU DU TERMINAL POUR COMPENSER DES DISTORSIONS DE LIAISON DESCENDANTE**

[72] SUBRAMANIAM, BALA, US  
[71] HUGHES NETWORK SYSTEMS, LLC, US  
[85] 2023-11-17  
[86] 2022-05-11 (PCT/US2022/028668)  
[87] (WO2022/245603)  
[30] US (63/190,320) 2021-05-19  
[30] US (17/726,730) 2022-04-22

[21] **3,219,412**  
[13] A1

[51] **Int.Cl. A61K 31/4545 (2006.01) A61P 13/08 (2006.01)**

[25] EN

[54] **METHODS OF TREATING INTERSTITIAL CYSTITIS/BLADDER PAIN SYNDROME**

[54] **METHODES DE TRAITEMENT DU SYNDROME DE LA CYSTITE INTERSTITIELLE/DOULEUR DE LA VESSIE**

[72] WHITESIDE, GARTH, US  
[72] HARRIS, STEPHEN, US  
[71] PURDUE PHARMA L.P., US  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030400)  
[87] (WO2022/246298)  
[30] US (63/191,536) 2021-05-21

[21] **3,219,415**  
[13] A1

[51] **Int.Cl. A61K 38/12 (2006.01) A61P 7/00 (2006.01) A61P 35/00 (2006.01) A61P 35/02 (2006.01) A61P 43/00 (2006.01) C07K 1/02 (2006.01) C07K 1/04 (2006.01) C07K 1/06 (2006.01) C07K 7/06 (2006.01) C07K 7/64 (2006.01)**

[25] EN

[54] **PHARMACEUTICAL USE OF CYCLIC PEPTIDE COMPOUND**

[54] **UTILISATION PHARMACEUTIQUE D'UN COMPOSE PEPTIDIQUE CYCLIQUE**

[72] TANADA, MIKIMASA, JP  
[72] TAKANO, KOJI, JP  
[72] MATSUO, ATSUSHI, JP  
[72] TAMIYA, MINORU, JP  
[72] CHIYODA, AYA, JP  
[72] ITO, TOSHIYA, JP  
[72] IIDA, TAKEO, SG  
[72] OHTA, ATSUSHI, JP  
[71] CHUGAL SEIYAKU KABUSHIKI KAISHA, JP  
[85] 2023-11-07  
[86] 2022-05-06 (PCT/JP2022/019542)  
[87] (WO2022/234852)  
[30] JP (2021-079013) 2021-05-07

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[21] **3,219,416**  
[13] A1

[51] **Int.Cl. G21F 9/30 (2006.01) B06B 1/02 (2006.01) G21F 9/00 (2006.01)**

[25] EN

[54] **HIGH-INTENSITY FOCUSED ULTRASOUND APPARATUS AND METHOD FOR DECONTAMINATION OF SOLID RADIOACTIVE WASTE**

[54] **APPAREIL A ULTRASONS FOCALISES DE HAUTE INTENSITE ET PROCEDE DE DECONTAMINATION DE DECHETS RADIOACTIFS SOLIDES**

[72] SEONG, UNHAK, KR  
[72] SHIN, JUNGCHEOL, KR  
[72] CHO, NAMCHAN, KR  
[72] PARK, JUNGSEOK, KR  
[72] PARK, CHANJUN, KR  
[72] JOO, YEONGJONG, KR  
[72] HONG, JEONGHWAN, KR  
[72] KIM, KITAE, KR  
[72] RYU, JICHANG, KR  
[71] ENESG CO., LTD., KR  
[71] KEPSCO NUCLEAR FUEL CO., LTD., KR

[85] 2023-11-07  
[86] 2022-05-24 (PCT/KR2022/007337)  
[87] (WO2022/255707)  
[30] KR (10-2021-0070361) 2021-05-31

[21] **3,219,418**  
[13] A1

[51] **Int.Cl. A61P 37/04 (2006.01) C07K 14/52 (2006.01) C07K 14/705 (2006.01)**

[25] EN

[54] **COMBINATION THERAPY TUMOUR CELL VACCINE**

[54] **VACCIN A CELLULES TUMORALES DE POLYTHERAPIE**

[72] SEAVER, KYLE, CA  
[72] BASTA, SAM, CA  
[72] GEE, KATRINA, CA  
[71] QUEEN'S UNIVERSITY AT KINGSTON, CA

[85] 2023-11-17  
[86] 2022-05-19 (PCT/CA2022/050792)  
[87] (WO2022/241560)  
[30] US (63/190,504) 2021-05-19

[21] **3,219,419**  
[13] A1

[51] **Int.Cl. B01D 15/20 (2006.01) A61L 2/18 (2006.01) B01D 15/42 (2006.01) B01J 20/34 (2006.01)**

[25] EN

[54] **COMPOSITION AND METHODS FOR SANITIZATION**

[54] **COMPOSITION ET METHODES DE DESINFECTION**

[72] KUTZKO, JOSEPH P., US  
[72] WOLLENSAK, RYAN F., US  
[71] GENZYME CORPORATION, US

[85] 2023-11-07  
[86] 2022-05-06 (PCT/US2022/028117)  
[87] (WO2022/236085)  
[30] US (63/185,786) 2021-05-07

[21] **3,219,421**  
[13] A1

[51] **Int.Cl. C12Q 1/6844 (2018.01)**

[25] EN

[54] **UNIVERSAL LAMP ASSAYS FOR DETECTION OF NUCLEIC ACID TARGETS**

[54] **DOSAGES UNIVERSELS DE LAMP POUR LA DETECTION DE CIBLES D'ACIDES NUCLEIQUES**

[72] REIF, JOHN H., US  
[72] SONG, XIN, US  
[71] DUKE UNIVERSITY, US

[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030312)  
[87] (WO2022/246237)  
[30] US (63/191,590) 2021-05-21

[21] **3,219,422**  
[13] A1

[51] **Int.Cl. A61M 11/04 (2006.01) A24F 40/10 (2020.01) A24F 40/40 (2020.01) A24F 40/42 (2020.01) A24F 40/46 (2020.01) A24F 40/60 (2020.01) A24F 40/65 (2020.01) A24F 1/00 (2006.01) A24F 5/00 (2006.01) A61M 15/00 (2006.01) A61M 15/06 (2006.01)**

[25] EN

[54] **PORTABLE VAPORIZATION DEVICE**

[54] **DISPOSITIF DE VAPORISATION PORTABLE**

[72] BAJPAL, AVINASH, US  
[72] WAGHMARE, SIDDHANT, US  
[71] PUFF CORPORATION, US

[85] 2023-11-07  
[86] 2022-05-06 (PCT/US2022/028122)  
[87] (WO2022/236089)  
[30] US (63/185,458) 2021-05-07  
[30] US (17/407,446) 2021-08-20

[21] **3,219,424**  
[13] A1

[51] **Int.Cl. G06T 17/05 (2011.01) G06T 15/10 (2011.01) G06V 20/20 (2022.01) G06V 20/64 (2022.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR RAPIDLY DEVELOPING ANNOTATED COMPUTER MODELS OF STRUCTURES**

[54] **SYSTEMES ET PROCEDES POUR LE DEVELOPPEMENT RAPIDE DE MODELES INFORMATIQUES ANNOTES DE STRUCTURES**

[72] JENSON, JACOB, US  
[72] REED, COREY DAVID, US  
[72] O'VERY, BRANDON, US  
[72] RICHARDSON, RON, US  
[72] JANKOWSKI, BENJAMIN, US  
[71] INSURANCE SERVICES OFFICE, INC., US

[85] 2023-11-17  
[86] 2022-05-24 (PCT/US2022/030691)  
[87] (WO2022/251189)  
[30] US (17/329,098) 2021-05-24

[21] **3,219,425**  
[13] A1

[51] **Int.Cl. A61K 39/00 (2006.01) A61P 25/28 (2006.01) C07K 16/28 (2006.01)**

[25] EN

[54] **AGONISTS OF TREM2**

[54] **AGONISTES DE TREM2**

[72] ECHEVERRIA LARRAZA, AINHOA, US  
[72] HANSEN, DAVID VERNE, US  
[72] HOTZEL, ISIDRO, US  
[72] HSIAO, YI-CHUN, US  
[72] LIN, ZHONGHUA, US  
[72] SESHASAYEE, DHAYA, US  
[72] CHIH, BENNY, US  
[71] GENENTECH, INC., US

[85] 2023-11-07  
[86] 2022-05-12 (PCT/US2022/028920)  
[87] (WO2022/241082)  
[30] US (63/188,800) 2021-05-14

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[21] **3,219,426**  
[13] A1

[51] **Int.Cl. A45D 19/02 (2006.01)**  
[25] EN  
[54] **MAGNETIC HAIR COLOR BOWL AND BRUSH**  
[54] **BOL ET BROSE DE COLORATION CAPILLAIRE MAGNETIQUES**  
[72] BOOS, JOSHUA B., US  
[71] BOOS, JOSHUA B., US  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030178)  
[87] (WO2022/246145)  
[30] US (63/190,992) 2021-05-20

[21] **3,219,428**  
[13] A1

[51] **Int.Cl. A61M 25/06 (2006.01) A61M 25/00 (2006.01) A61M 25/09 (2006.01) A61M 39/02 (2006.01) A61M 39/06 (2006.01) A61B 17/34 (2006.01)**  
[25] EN  
[54] **RAPIDLY INSERTABLE CENTRAL CATHETERS, CATHETER INSERTION ASSEMBLIES, AND METHODS**  
[54] **CATHETERS CENTRAUX A INSERTION RAPIDE, ENSEMBLES D'INSERTION DE CATHETER ET PROCEDES**  
[72] HOWELL, GLADE H., US  
[71] BARD ACCESS SYSTEMS, INC., US  
[85] 2023-11-07  
[86] 2022-05-17 (PCT/US2022/029561)  
[87] (WO2022/245774)  
[30] US (63/189,549) 2021-05-17

[21] **3,219,429**  
[13] A1

[51] **Int.Cl. A61M 25/06 (2006.01) A61M 25/00 (2006.01) A61M 25/01 (2006.01) A61M 25/09 (2006.01)**  
[25] EN  
[54] **RAPIDLY INSERTABLE CENTRAL CATHETERS, INTRODUCERS, AND INSERTION DEVICES INCLUDING COMBINATIONS AND METHODS THEREOF**  
[54] **CATHETERS CENTRAUX A INSERTION RAPIDE, INTRODUCTEURS ET DISPOSITIFS D'INSERTION COMPRENANT DES COMBINAISONS ET PROCEDES ASSOCIES**  
[72] BLANCHARD, DANIEL B., US  
[72] HOWELL, GLADE H., US  
[72] SPATARO, JOE, US  
[72] THORNLEY, KYLE G., US  
[72] MCKINNON, AUSTIN J., US  
[71] BARD ACCESS SYSTEMS, INC., US  
[85] 2023-11-07  
[86] 2022-05-20 (PCT/US2022/030365)  
[87] (WO2022/246271)  
[30] US (63/191,207) 2021-05-20  
[30] US (63/284,533) 2021-11-30

[21] **3,219,430**  
[13] A1

[51] **Int.Cl. F26B 3/092 (2006.01) F26B 11/14 (2006.01)**  
[25] EN  
[54] **FLASH DRYER AND METHOD FOR DRYING A PRODUCT IN A FLASH DRYER**  
[54] **SECHOIR-ECLAIR ET PROCEDE POUR SECHER UN PRODUIT DANS UN SECHOIR-ECLAIR**  
[72] LARSSON, MAGNUS, SE  
[72] KLANG, RICHARD, SE  
[71] G. LARSSON STARCH TECHNOLOGY AB, SE  
[85] 2023-11-17  
[86] 2022-04-26 (PCT/EP2022/061074)  
[87] (WO2022/248142)  
[30] EP (21175893.3) 2021-05-26

[21] **3,219,431**  
[13] A1

[51] **Int.Cl. A23C 9/123 (2006.01) A23C 19/032 (2006.01) A23C 19/068 (2006.01)**  
[25] EN  
[54] **USE OF LACTASE AND LAC(-) LACTIC ACID BACTERIA (LAB) FOR PRODUCING A FERMENTED MILK PRODUCT**  
[54] **UTILISATION DE LA LACTASE ET DES BACTERIES LACTIQUES (LAB) LAC(-) PERMETTANT LA PRODUCTION D'UN PRODUIT LAITIER FERMENTE**  
[72] SAITO, MICHAEL MITSUO, BR  
[72] JACTAT, VERONIQUE, US  
[72] JANZEN, THOMAS, DK  
[72] HORNNES, MIKKEL HVIID DANIELSEN, DK  
[71] CHR. HANSEN A/S, DK  
[85] 2023-11-17  
[86] 2022-06-10 (PCT/EP2022/065856)  
[87] (WO2022/258817)  
[30] EP (21178956.5) 2021-06-11

[21] **3,219,432**  
[13] A1

[51] **Int.Cl. A61K 31/436 (2006.01) A61K 38/22 (2006.01) A61K 38/43 (2006.01) A61P 27/02 (2006.01) C12N 15/113 (2010.01) A61K 39/00 (2006.01)**  
[25] EN  
[54] **METHODS OF TREATING RETINAL VASCULOPATHIES**  
[54] **METHODES DE TRAITEMENT DE VASCULOPATHIES RETINIENNES**  
[72] LABERGE, REMI-MARTIN, US  
[72] KIMURA, SCOTT, US  
[72] SAPIEHA, PRZEMYSLAW, US  
[72] TSURUDA, PAMELA, US  
[72] BAS-KWAK, PIETER, US  
[72] GUSHWA, NATHAN, US  
[72] CHOW, TIANNA, US  
[71] UNITY BIOTECHNOLOGY, INC., US  
[85] 2023-11-07  
[86] 2022-05-25 (PCT/US2022/030938)  
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[30] US (63/193,327) 2021-05-26  
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[13] A1

[51] **Int.Cl. G16B 20/20 (2019.01) C12Q 1/68 (2018.01)**  
[25] EN  
[54] **QUANTIFICATION OF RNA MUTATION EXPRESSION**  
[54] **QUANTIFICATION DE L'EXPRESSION DE MUTATION D'ARN**  
[72] WALLACE, ANDREW J., US  
[71] GENENTECH, INC., US  
[85] 2023-11-07  
[86] 2022-06-16 (PCT/US2022/033869)  
[87] (WO2022/266375)  
[30] US (63/212,044) 2021-06-17

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[21] **3,219,437**  
[13] A1

[51] **Int.Cl. A61J 1/16 (2006.01) B01F 31/00 (2022.01)**  
[25] EN  
[54] **DEVICE AND METHOD FOR ACCELERATED THAWING**  
[54] **DISPOSITIF ET PROCEDE DE DECONGELATION ACCELEREE**  
[72] BATES, FERDIA, DE  
[72] NAWRATH, KARINA, DE  
[72] PANHANS, CHRISTIAN, DE  
[72] PREHN, MARCO, DE  
[72] KRAUSE, RALPH, DE  
[72] FRIEBE, CHRISTIAN, DE  
[72] KUHN, MORITZ, DE  
[72] SCHOEPE, FRANK, DE  
[72] OPPELT, THOMAS, DE  
[71] BIONTECH SE, DE  
[85] 2023-11-17  
[86] 2022-05-25 (PCT/EP2022/064339)  
[87] (WO2022/248629)  
[30] EP (21176087.1) 2021-05-26

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[21] **3,219,438**  
[13] A1

[51] **Int.Cl. A61N 5/06 (2006.01) A61B 18/00 (2006.01) A61B 18/18 (2006.01)**  
[25] EN  
[54] **DEVICES, SYSTEMS, AND METHODS FOR ACTIVATION OF A PHOTOACTIVE AGENT**  
[54] **DISPOSITIFS, SYSTEMES ET PROCEDES D'ACTIVATION D'UN AGENT PHOTOACTIF**  
[72] O'SULLIVAN, CONOR, IE  
[72] NOLAN, STEPHEN, IE  
[72] MURPHY, JOHN, IE  
[72] LYDECKER, LAUREN SFAKIS, US  
[72] DEVLIN, EDWARD JOSEPH, IE  
[72] SANTRY, BARBARA, IE  
[72] RYAN, FRANK, IE  
[71] BOSTON SCIENTIFIC SCIMED, INC., US  
[85] 2023-11-07  
[86] 2022-08-16 (PCT/US2022/040520)  
[87] (WO2023/023101)  
[30] US (63/233,866) 2021-08-17

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[21] **3,219,440**  
[13] A1

[51] **Int.Cl. C07C 2/32 (2006.01) B01J 8/22 (2006.01) C07C 11/107 (2006.01)**  
[25] FR  
[54] **METHOD FOR OLIGOMERISATION IN A REACTOR COMPRISING VARIABLE-DIAMETER ZONES, INCLUDING A STEP OF RECYCLING A PRE-COOLED SOLVENT**  
[54] **PROCEDE D'OLIGOMERISATION DANS UN REACTEUR A ZONES DE DIAMETRES VARIABLES COMPRENANT UNE ETAPE DE RECYCLAGE D'UN SOLVANT PREALABLEMENT REFROIDI**  
[72] COTTE, OLIVIER, FR  
[72] BREUIL, PIERRE-ALAIN, FR  
[71] IFP ENERGIES NOUVELLES, FR  
[85] 2023-11-17  
[86] 2022-05-24 (PCT/EP2022/064008)  
[87] (WO2022/248449)  
[30] FR (FR2105617) 2021-05-28

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[21] **3,219,441**  
[13] A1

[51] **Int.Cl. A61K 8/02 (2006.01) A61K 8/19 (2006.01) A61K 8/21 (2006.01) A61K 8/24 (2006.01) A61K 8/25 (2006.01) A61K 8/27 (2006.01) A61K 8/31 (2006.01) A61K 8/44 (2006.01) A61K 8/46 (2006.01) A61K 8/90 (2006.01) A61Q 11/00 (2006.01)**  
[25] EN  
[54] **ORAL CARE COMPOSITIONS COMPRISING BLOCK COPOLYMER**  
[54] **COMPOSITIONS DE SOIN BUCCAL COMPRENANT UN COPOLYMERE SEQUENCE**  
[72] BERTA, JAMES ALBERT, US  
[72] MAO, MIN, US  
[72] PAYNE, MELISSA CHERIE, US  
[72] SAGEL, PAUL ALBERT, US  
[71] THE PROCTER & GAMBLE COMPANY, US  
[85] 2023-11-07  
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[87] (WO2022/241412)  
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[21] **3,219,444**  
[13] A1

[51] **Int.Cl. A61B 5/06 (2006.01) A61B 90/00 (2016.01) A61B 17/00 (2006.01) G01R 33/16 (2006.01)**  
[25] EN  
[54] **IMPROVEMENTS IN OR RELATING TO IMPLANTABLE FERROMAGNETIC MARKERS**  
[54] **AMELIORATIONS APPORTEES A DES MARQUEURS FERROMAGNETIQUES IMPLANTABLES OU SE RAPPORTANT A CEUX-CI**  
[72] UDALE, ROBINSON, GB  
[72] VILLAR, GABRIEL, GB  
[71] ENDOMAGNETICS LTD, GB  
[85] 2023-11-17  
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[87] (WO2023/079293)  
[30] GB (2115826.6) 2021-11-03

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[21] **3,219,446**  
[13] A1

[51] **Int.Cl. D21F 5/00 (2006.01)**  
[25] EN  
[54] **DEVICE FOR REDUCING A MOISTURE CONTENT OF A MOIST, FIBRE-CONTAINING MATERIAL**

[54] **DISPOSITIF DE REDUCTION DE LA TENEUR EN HUMIDITE D'UN MATERIAU HUMIDE CONTENANT DES FIBRES**

[72] MORGENBESSER, KARL, AT  
[71] BERNDORF BAND GMBH, AT  
[85] 2023-11-08  
[86] 2022-05-19 (PCT/AT2022/060174)  
[87] (WO2022/241498)  
[30] AT (A 50396/2021) 2021-05-20

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[21] **3,219,447**  
[13] A1

[51] **Int.Cl. C07K 14/705 (2006.01) A61P 13/12 (2006.01) C07K 14/47 (2006.01)**  
[25] EN  
[54] **GENE THERAPY FOR DENT DISEASE**

[54] **THERAPIE GENIQUE CONTRE LA MALADIE DE DENT**

[72] LU, BAISONG, US  
[72] ATALA, ANTHONY, US  
[71] WAKE FOREST UNIVERSITY HEALTH SCIENCES, US  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030264)  
[87] (WO2022/251060)  
[30] US (63/193,212) 2021-05-26

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[21] **3,219,448**  
[13] A1

[51] **Int.Cl. A61K 35/39 (2015.01) A61P 7/12 (2006.01)**  
[25] EN  
[54] **METHODS FOR TREATING TYPE 1 DIABETES**

[54] **METHODES DE TRAITEMENT DU DIABETE DE TYPE 1**

[72] LEON, FRANCISCO, US  
[72] RAYMOND, RALPH, US  
[71] PROVENTION BIO, INC., US  
[85] 2023-11-17  
[86] 2022-05-24 (PCT/US2022/030772)  
[87] (WO2022/251253)  
[30] US (63/192,402) 2021-05-24  
[30] US (17/752,660) 2022-05-24

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[21] **3,219,449**  
[13] A1

[25] FR  
[54] **SYSTEM AND METHOD FOR MEASURING REACTIONS OF A SUBJECT, A COMPUTER PROGRAM AND A COMPUTER-READABLE MEDIUM**

[54] **UN SYSTEME ET UN PROCEDE DE MESURE DE REACTIONS D'UN SUJET, UN PROGRAMME D'ORDINATEUR ET UN SUPPORT LISIBLE PAR ORDINATEUR**

[72] DAYE, PIERRE MARTIN JACK GERARD, BE  
[71] P<sup>3</sup>LAB, BE  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/EP2022/063613)  
[87] (WO2022/243454)  
[30] BE (BE2021/5404) 2021-05-19

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[21] **3,219,450**  
[13] A1

[51] **Int.Cl. A61K 36/8994 (2006.01) A61K 36/57 (2006.01) A61K 36/71 (2006.01) A61K 36/752 (2006.01) A61K 36/79 (2006.01) A61K 36/808 (2006.01) A61K 36/85 (2006.01) A61K 36/888 (2006.01) A61K 36/8968 (2006.01) A61K 36/899 (2006.01) A61P 31/14 (2006.01) A61P 39/06 (2006.01)**  
[25] EN  
[54] **TRADITIONAL CHINESE MEDICINE COMPOSITION FOR INFECTIOUS DISEASE RECOVERY AND USE THEREOF**

[54] **COMPOSITION DE MEDECINE CHINOISE TRADITIONNELLE POUR LA RECUPERATION EN CAS DE MALADIES INFECTIEUSES ET SON UTILISATION**

[72] ZHANG, BOLI, CN  
[72] ZHANG, JUNHUA, CN  
[72] LIU, QINGQUAN, CN  
[72] YANG, FENGWEN, CN  
[72] HUANG, MING, CN  
[72] GUO, YONGMING, CN  
[72] SONG, XINBO, CN  
[72] ZHANG, HAN, CN  
[72] WANG, YUEFEI, CN  
[72] CHANG, YANXU, CN  
[72] LIU, ERWEI, CN  
[72] ZHENG, WENKE, CN  
[71] CHINA RESOURCES SANJIU MEDICAL & PHARMACEUTICAL CO., LTD., CN  
[85] 2023-11-17  
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[87] (WO2022/242128)  
[30] CN (202110551216.7) 2021-05-20

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[21] **3,219,451**  
[13] A1

[51] **Int.Cl. A61L 2/18 (2006.01) A61B 90/70 (2016.01) A61B 1/12 (2006.01) A61C 1/00 (2006.01) B08B 9/032 (2006.01)**

[25] EN

[54] **FLUID-BASED POWDER CONVEYANCE SYSTEMS AND METHODS FOR MEDICAL DEVICE CLEANING AND/OR LUMEN CLEANING**

[54] **SYSTEMES DE TRANSPORT DE POUVRE A BASE DE FLUIDE ET PROCEDES DE NETTOYAGE DE DISPOSITIF MEDICAL ET/OU DE NETTOYAGE DE LUMIERE**

[72] ALEMANA, GILBERT, AU  
[72] ALI, AHMED, AU  
[72] PIDCOCK, DAVID, AU  
[72] TISSERA, SHIHAN, AU  
[72] RUPRAI, HERLEEN, AU  
[71] SABAN VENTURES PTY LIMITED, AU  
[85] 2023-11-08  
[86] 2022-06-09 (PCT/AU2022/050569)  
[87] (WO2022/256872)  
[30] AU (2021901732) 2021-06-09

[21] **3,219,452**  
[13] A1

[25] EN

[54] **BENDING ANGLE DETERMINING METHOD AND DETERMINING DEVICE**

[54] **PROCEDE DE DETERMINATION ET DISPOSITIF DE DETERMINATION D'ANGLE DE CINTRAGE**

[72] IDOMOTO, YASUSHI, JP  
[72] HARADA, KAZUMA, JP  
[71] KUBOTA CORPORATION, JP  
[85] 2023-11-17  
[86] 2022-04-25 (PCT/JP2022/018670)  
[87] (WO2022/244598)  
[30] JP (2021-086264) 2021-05-21

[21] **3,219,454**  
[13] A1

[25] EN

[54] **ROTATING RELEASE LAUNCHING SYSTEM**

[54] **SYSTEME DE LANCEMENT A LIBERATION ROTATIVE**

[72] ALLEY, NICHOLAS ROBERT, US  
[72] WILLIAMS, JESSE OWEN, US  
[72] BRASHER, MATTHEW GORDON, US  
[72] HAMMERSTEIN, JULIAN, US  
[71] ANDURIL INDUSTRIES, INC., US  
[85] 2023-11-09  
[86] 2023-04-27 (PCT/US2023/020111)  
[87] (3219454)  
[30] US (18/307,609) 2023-04-26

[21] **3,219,455**  
[13] A1

[25] EN

[54] **METHOD FOR COMMUNICATION BETWEEN COMPONENTS OF AN ELECTRICAL DEVICE**

[54] **PROCEDE DE COMMUNICATION ENTRE DES COMPOSANTS D'UN DISPOSITIF ELECTRIQUE**

[72] COONEY, ANDREW KARL, US  
[72] MALANAPHY, DEVIN M., US  
[72] PRICE, MATTHEW J., US  
[72] SHAW, SCOTT E., US  
[72] THRASHER, DEREK, US  
[71] LUTRON TECHNOLOGY COMPANY LLC, US  
[85] 2023-11-17  
[86] 2022-10-21 (PCT/US2022/047419)  
[87] (WO2023/069706)  
[30] US (63/262,939) 2021-10-22

[21] **3,219,456**  
[13] A1

[51] **Int.Cl. H04N 21/24 (2011.01) H04N 21/442 (2011.01) G06Q 20/38 (2012.01) G06Q 20/40 (2012.01) G06Q 30/02 (2023.01) G06F 21/64 (2013.01)**

[25] EN

[54] **SYSTEM AND METHOD FOR PROOF OF VIEW VIA BLOCKCHAIN**

[54] **SYSTEME ET PROCEDE POUR PREUVE DE VISUALISATION VIA UNE CHAINE DE BLOCS**

[72] HAIN, ROBERT JAMES MARK, IT  
[71] HAIN, ROBERT JAMES MARK, IT  
[85] 2023-11-17  
[86] 2022-05-13 (PCT/IB2022/054503)  
[87] (WO2022/248965)  
[30] US (17/328,695) 2021-05-24

[21] **3,219,457**  
[13] A1

[51] **Int.Cl. G05D 11/13 (2006.01) B01F 23/00 (2022.01) B01F 33/301 (2022.01) B01F 35/21 (2022.01) B01F 35/22 (2022.01) B01F 35/221 (2022.01) B01F 35/71 (2022.01) A61M 5/142 (2006.01) A61M 5/168 (2006.01) G01N 1/34 (2006.01) G01N 1/38 (2006.01) G05B 19/05 (2006.01) G05D 7/00 (2006.01) G05D 7/01 (2006.01)**

[25] EN

[54] **SMALL VOLUME LIQUID MIXING AND DISPENSING SYSTEM AND METHOD**

[54] **SYSTEME ET PROCEDE DE MELANGE ET DE DISTRIBUTION DE LIQUIDES EN FAIBLE VOLUME**

[72] JAMES, DAVID, AU  
[72] WILSON, STEPHEN, AU  
[72] FITZPATRICK, IAN, AU  
[71] SCINOZY PRODUCTS PTY LTD, AU  
[85] 2023-11-08  
[86] 2022-06-30 (PCT/AU2022/050686)  
[87] (WO2023/272360)  
[30] AU (2021902000) 2021-06-30

[21] **3,219,458**  
[13] A1

[25] EN

[54] **OPHTHALMOLOGICAL SURGICAL INSTRUMENT**

[54] **INSTRUMENT CHIRURGICAL OPHTHALMOLOGIQUE**

[72] PEIRETTI, ENRICO, IT  
[72] IOVINO, CLAUDIO, IT  
[72] SIOTTO PINTOR, EMANUELE, IT  
[72] BUONADONNA, PASQUALE, IT  
[71] UNIVERSITA DEGLI STUDI DI CAGLIARI, IT  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/IB2022/054678)  
[87] (WO2022/243929)  
[30] IT (102021000013205) 2021-05-20

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[21] **3,219,459**  
[13] A1

[51] **Int.Cl. H04L 1/18 (2023.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR HYBRID AUTOMATIC REPEAT REQUEST ACKNOWLEDGEMENT PROCEDURE AND TRANSMISSION CONFIGURATION INDICATOR APPLICATION TIMELINE FOR BEAM INDICATION**

[54] **SYSTEMES ET PROCESSES POUR PROCEDURE D'ACCUSE DE RECEPTION DE DEMANDE DE REPETITION AUTOMATIQUE HYBRIDE ET CHRONOLOGIE D'APPLICATION D'INDICATEUR DE CONFIGURATION DE TRANSMISSION P OUR INDICATION DE FAISCEAU**

[72] GAO, BO, CN  
[72] LU, ZHAOHUA, CN  
[72] YAO, KE, CN  
[72] ZHANG, SHUJUAN, CN  
[72] SHAO, SHIJIA, CN  
[71] ZTE CORPORATION, CN  
[85] 2023-11-08  
[86] 2021-05-11 (PCT/CN2021/093005)  
[87] (WO2022/236664)

[21] **3,219,462**  
[13] A1

[51] **Int.Cl. H05B 47/185 (2020.01) H05B 45/52 (2020.01) H05B 47/20 (2020.01)**  
[25] EN  
[54] **METHOD OF CONTROLLING SERIALY-CONNECTED LIGHTING DEVICES**

[54] **PROCEDE DE COMMANDE DE DISPOSITIFS D'ECLAIRAGE CONNECTES EN SERIE**

[72] BOCOCK, RYAN M., US  
[72] BURBERRY, RICHARD S., US  
[72] GREEN, CHRISTOPHER M., US  
[72] LUU, JIVAN J., US  
[72] NEMMANI, ANANTHANAG, US  
[72] SHUKLA, JAYKRISHNA A., US  
[71] LUTRON TECHNOLOGY COMPANY LLC, US  
[85] 2023-11-17  
[86] 2022-09-03 (PCT/US2022/042565)  
[87] (WO2023/034623)  
[30] US (63/240,663) 2021-09-03

[21] **3,219,463**  
[13] A1

[51] **Int.Cl. A61K 45/06 (2006.01) A61P 25/08 (2006.01) C07D 279/02 (2006.01) C07D 417/12 (2006.01) C07D 513/04 (2006.01)**

[25] EN  
[54] **MODULATORS OF PRPC AND USES THEREOF**

[54] **MODULATEUR DE PRPC ET UTILISATIONS ASSOCIEES**

[72] BIASINI, EMILIANO, IT  
[72] BARRECA, MARIA LETIZIA, IT  
[72] MANFRONI, GIUSEPPE, IT  
[72] FALLARINO, FRANCESCA, IT  
[71] FONDAZIONE TELETHON ETS, IT  
[71] UNIVERSITA' DEGLI STUDI DI PERUGIA, IT  
[71] UNIVERSITA DEGLI STUDI DI TRENTO, IT  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/EP2022/063806)  
[87] (WO2022/243549)  
[30] IT (102021000013244) 2021-05-21

[21] **3,219,464**  
[13] A1

[25] EN  
[54] **ASSEMBLIES FOR PULLING, PUSHING, OR BLOWING A PLURALITY OF PRETERMINATED FIBER OPTIC CABLES THROUGH A DUCT AND ASSEMBLING A FIBER OPTIC CONNECTOR INCLUDING THE PRETERMINATED FIBER OPTIC CABLE AFTER BEING PULLED, PUSHED, OR BLOWN THROUGH THE DUC**

[54] **ENSEMBLES DE TRACTION, DE POUSSEE, OU DE SOUFFLAGE D'UNE PLURALITE DE CABLES A FIBRES OPTIQUES PRETERMINEES A TRAVERS UN CONDUIT ET L'ASSEMBLAGE D'UN CONNECTEUR DE FIBRES OPTIQUES COMPRENANT LE CABLE A FIBRES OPTIQUES PRETERMINE APRES AVOIR ETE TIRE, PUSSE OU SOUFFLE A TRAVERS LE CONDUIT**

[72] LEESON, KIM, GB  
[72] TREZISE, SHAUN, GB  
[71] PPC BROADBAND FIBER LTD., GB  
[85] 2023-11-17  
[86] 2022-05-23 (PCT/US2022/030610)  
[87] (WO2022/246333)  
[30] US (63/191,549) 2021-05-21

[21] **3,219,465**  
[13] A1

[51] **Int.Cl. B60B 9/18 (2006.01) B60B 9/20 (2006.01) B60B 9/24 (2006.01)**  
[25] EN  
[54] **WHEEL ASSEMBLY INCLUDING GAS SPRINGS WITH ASSOCIATED INTEGRAL HYDRAULIC DAMPERS AND RELATED METHODS**

[54] **ENSEMBLE ROUE COMPRENANT DES RESSORTS A GAZ AVEC DES AMORTISSEURS HYDRAULIQUES INTEGRES ASSOCIES ET PROCESSES CONNEXES**

[72] KEMENY, ZOLTAN, US  
[71] GACW INCORPORATED, US  
[85] 2023-11-17  
[86] 2022-03-14 (PCT/US2022/020145)  
[87] (WO2022/245419)  
[30] US (63/190,929) 2021-05-20  
[30] US (17/693,373) 2022-03-13

[21] **3,219,466**  
[13] A1

[51] **Int.Cl. B29C 70/38 (2006.01) B29C 70/42 (2006.01) B29C 70/54 (2006.01)**  
[25] EN  
[54] **FIBER PLACEMENT HEAD WITH AUGMENTED RESTART TETE DE PLACEMENT DE FIBRES A REDEMARRAGE AUGMENTE**

[72] NOEL, MICHAEL, US  
[71] FIVES MACHINING SYSTEMS, INC., US  
[85] 2023-11-17  
[86] 2022-05-23 (PCT/US2022/030504)  
[87] (WO2022/246311)  
[30] US (63/191,420) 2021-05-21

[21] **3,219,468**  
[13] A1

[25] EN  
[54] **NETWORK ACCESS POINT (NAP) ENCLOSURE**

[54] **ENCEINTE DE POINT D'ACCES AU RESEAU (NAP)**

[72] LARSSON, NICHOLAS B., US  
[72] CRAWFORD, WILLIAM L., US  
[72] MANGEL, RUTA, US  
[72] ADAMS, CAMERON, US  
[71] PPC BROADBAND, INC., US  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030342)  
[87] (WO2022/246258)  
[30] US (63/191,258) 2021-05-20  
[30] US (63/295,341) 2021-12-30

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[21] **3,219,469**  
[13] A1

[51] **Int.Cl. H04L 27/04 (2006.01) G06F 9/30 (2018.01) G06F 9/38 (2018.01) H04L 27/12 (2006.01) H04L 27/36 (2006.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR SIGNAL MODULATION OF A PLURALITY OF DOWNLINK SIGNALS REPRESENTATIVE OF A COMMUNICATION SIGNAL**

[54] **SYSTEMES ET PROCEDES DE MODULATION DE SIGNAL D'UNE PLURALITE DE SIGNAUX DE LIAISON DESCENDANTE REPRESENTATIFS D'UN SIGNAL DE COMMUNICATION**

[72] JARRIEL, JEFFREY DAVID, US  
[72] SUTTON, DANIEL JOSEPH, US  
[72] STOLTENBERG, MATTHEW JAMES, US

[72] KING, BRANDON GREGORY, US  
[71] KRATOS INTEGRAL HOLDINGS, LLC, US

[85] 2023-11-17  
[86] 2021-05-24 (PCT/US2021/033905)  
[87] (WO2022/250651)

[21] **3,219,470**  
[13] A1

[51] **Int.Cl. C12Q 1/6869 (2018.01)**

[25] EN

[54] **NANOPORE PROTEOMICS**

[54] **PROTEOMIQUE DE NANOPORES**

[72] LUCAS, FLORIAN LEONARDUS RUDOLFUS, NL

[72] VERSLOOT, RODERICK CORSTIAAN ABRAHAM, NL

[72] MAGLIA, GIOVANNI, NL

[71] RIJKSUNIVERSITEIT GRONINGEN, NL

[85] 2023-11-17  
[86] 2022-05-18 (PCT/NL2022/050266)  
[87] (WO2022/245209)  
[30] EP (21174437.0) 2021-05-18

[21] **3,219,471**  
[13] A1

[51] **Int.Cl. H04L 1/06 (2006.01) H04B 7/02 (2018.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR POST-DETECT COMBINING OF A PLURALITY OF DOWNLINK SIGNALS REPRESENTATIVE OF A COMMUNICATION SIGNAL**

[54] **SYSTEMES ET PROCEDES POUR LA COMBINAISON POST-DETECTION D'UNE PLURALITE DE SIGNAUX DE LIAISON DESCENDANTE REPRESENTATIFS D'UN SIGNAL DE COMMUNICATION**

[72] JARRIEL, JEFFREY DAVID, US  
[72] SUTTON, DANIEL JOSEPH, US  
[72] STOLTENBERG, MATTHEW JAMES, US

[72] KING, BRANDON GREGORY, US  
[71] KRATOS INTEGRAL HOLDINGS, LLC, US

[85] 2023-11-17  
[86] 2021-05-24 (PCT/US2021/033867)  
[87] (WO2022/250647)

[21] **3,219,472**  
[13] A1

[51] **Int.Cl. G06Q 10/06 (2023.01) G06Q 50/02 (2012.01)**

[25] EN

[54] **METHOD FOR GENERATING A ZONE SPECIFIC APPLICATION MAP FOR TREATING AN AGRICULTURAL FIELD WITH PRODUCTS**

[54] **PROCEDE DE GENERATION D'UNE CARTE D'APPLICATION SPECIFIQUE A UNE ZONE PERMETTANT UN TRAITEMENT D'UN CHAMP AGRICOLE AVEC DES PRODUITS**

[72] TACKENBERG, MARIA, DE  
[72] JOHNEN, ANDREAS, DE  
[72] SCHAEFER, FABIAN JOHANNES, DE

[71] BASF AGRO TRADEMARKS GMBH, DE

[85] 2023-11-17  
[86] 2022-05-18 (PCT/EP2022/063385)  
[87] (WO2022/243350)  
[30] EP (21174746.4) 2021-05-19

[21] **3,219,473**  
[13] A1

[51] **Int.Cl. A61P 3/08 (2006.01) A61P 3/10 (2006.01)**

[25] EN

[54] **METHODS FOR TREATING POST INFECTIOUS AUTOIMMUNE DIABETES**

[54] **METHODES DE TRAITEMENT DU DIABETE AUTO-IMMUN POST-INFECTIEUX**

[72] LEON, FRANCISCO, US  
[71] PROVENTION BIO, INC., US

[85] 2023-11-17  
[86] 2022-05-24 (PCT/US2022/030780)  
[87] (WO2022/251258)  
[30] US (63/192,414) 2021-05-24  
[30] US (17/752,650) 2022-05-24

[21] **3,219,474**  
[13] A1

[51] **Int.Cl. G01N 21/95 (2006.01)**

[25] EN

[54] **VEHICLE IMAGING STATION**

[54] **STATION D'IMAGERIE DE VEHICULE**

[72] GOULD, DANIEL GEORGE, GB  
[71] DEGOULD LIMITED, GB

[85] 2023-11-17  
[86] 2022-05-18 (PCT/GB2022/051250)  
[87] (WO2022/243678)  
[30] GB (2107230.1) 2021-05-20

[21] **3,219,475**  
[13] A1

[51] **Int.Cl. A61K 47/68 (2017.01) C07K 16/28 (2006.01)**

[25] EN

[54] **COMPOSITIONS INCLUDING CONJUGATED THERAPY ENHANCERS**

[54] **COMPOSITIONS COMPRENANT DES AMPLIFICATEURS DE THERAPIE CONJUGUES**

[72] KAZMIERSKI, WIESLAW, US  
[72] PRACITTO, RICHARD, US

[71] BIOHAVEN THERAPEUTICS LTD., US

[85] 2023-11-17  
[86] 2022-05-17 (PCT/US2022/029533)  
[87] (WO2022/245757)  
[30] US (63/189,503) 2021-05-17



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[21] **3,219,476**  
[13] A1

[51] **Int.Cl. H04L 47/24 (2022.01) H04W 72/04 (2023.01) H04L 47/265 (2022.01) H04L 47/70 (2022.01) H04L 47/724 (2022.01) H04L 47/83 (2022.01)**

[25] EN

[54] **COMPUTER-BASED SYSTEMS CONFIGURED FOR MANAGING MESH NETWORKS HAVING INTEGRATED ROOFING COMPONENTS AND METHODS OF USE THEREOF**

[54] **SYSTEMES INFORMATIQUES CONFIGURES POUR GERER DES RESEAUX MAILLES COMPRENANT DES COMPOSANTS DE COUVERTURE INTEGRES ET LEURS PROCEDES D'UTILISATION**

[72] CAMPAU, ZACHARY RICHARD, US  
[72] RILEY, XAVIER, US  
[71] BMIC LLC, US  
[85] 2023-11-17  
[86] 2022-08-04 (PCT/US2022/039478)  
[87] (WO2023/014915)  
[30] US (63/229,815) 2021-08-05  
[30] US (17/868,544) 2022-07-19

[21] **3,219,478**  
[13] A1

[51] **Int.Cl. A61K 31/10 (2006.01) A61P 35/02 (2006.01)**

[25] EN

[54] **JAK INHIBITORS FOR MANAGING CONDITIONS IN PATIENTS WITH DOWN'S SYNDROME OR OTHER TRISOMY**

[54] **INHIBITEURS DE JAK POUR LA GESTION D'ETATS CHEZ DES PATIENTS ATTEINTS DU SYNDROME DE DOWN OU D'UNE AUTRE TRISOMIE**

[72] GAVEGNANO, CHRISTINA, US  
[72] RIBEIRO, SUSAN PEREIRA, US  
[71] EMORY UNIVERSITY, US  
[85] 2023-11-17  
[86] 2022-05-26 (PCT/US2022/031046)  
[87] (WO2022/251434)  
[30] US (63/193,279) 2021-05-26

[21] **3,219,481**  
[13] A1

[51] **Int.Cl. C09J 201/10 (2006.01) E04D 3/34 (2006.01)**

[25] EN

[54] **CONCRETE ROOFING SYSTEMS AND METHODS THEREOF**

[54] **SYSTEMES DE TOITURE EN BETON ET PROCEDES ASSOCIES**

[72] TAYLOR, ZACHARY SCOTT, US  
[72] GOODRUM, KIRK MATTHEW, US  
[72] NAM, MIN KYUNG, US  
[71] SIPLAST, INC., US  
[85] 2023-11-17  
[86] 2022-06-22 (PCT/US2022/034556)  
[87] (WO2022/271850)  
[30] US (63/213,493) 2021-06-22

[21] **3,219,482**  
[13] A1

[51] **Int.Cl. A41D 31/08 (2019.01) D03D 15/513 (2021.01) D03D 15/56 (2021.01)**

[25] EN

[54] **FLAME RESISTANT FABRICS FORMED WITH STRETCHABLE YARNS**

[54] **TISSUS IGNIFUGES FORMES DE FILS EXTENSIBLES**

[72] DUFTY, ELIJAH, US  
[72] SELF, ROBERT, US  
[72] LATON, MICHAEL A., US  
[72] HILTON, KEVIN, US  
[71] SOUTHERN MILLS, INC., US  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030273)  
[87] (WO2022/246211)  
[30] US (63/191,485) 2021-05-21

[21] **3,219,483**  
[13] A1

[25] EN

[54] **PILOTED SEALING FEATURES FOR POWER TURBINE**

[54] **ELEMENTS D'ETANCHEITE PILOTES POUR TURBINE DE PUISSANCE**

[72] BOURNE, PHILLIP O., US  
[72] BOURNE, PHILLIP O., US  
[72] PROFFITT, MORGAN, US  
[71] SOLAR TURBINES INCORPORATED, US  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030164)  
[87] (WO2022/271358)  
[30] US (17/337,221) 2021-06-02

[21] **3,219,484**  
[13] A1

[51] **Int.Cl. C12Q 1/6883 (2018.01) A61P 25/32 (2006.01)**

[25] EN

[54] **EPIGENETIC MODERATORS OF NALTREXONE EFFICACY IN REDUCING HEAVY DRINKING IN INDIVIDUALS DIAGNOSED WITH ALCOHOL USE DISORDER**

[54] **MODERATEURS EPIGENETIQUES DE L'EFFICACITE DE LA NALTREXONE DANS LA REDUCTION DE LA CONSOMMATION LOURDE DE BOISSON CHEZ DES INDIVIDUS CHEZ LESQUELS UN TROUBLE DE L'USAGE DE L'ALCOOL A ETE DIAGNOSTIQU**

[72] ANTON, RAYMOND F, US  
[72] SCHACHT, JOSEPH P., US  
[71] THE REGENTS OF THE UNIVERSITY OF COLORADO, US  
[71] MUSC FOUNDATION FOR RESEARCH DEVELOPMENT, US  
[85] 2023-11-17  
[86] 2022-05-25 (PCT/US2022/030946)  
[87] (WO2022/251375)  
[30] US (63/192,952) 2021-05-25

[21] **3,219,485**  
[13] A1

[51] **Int.Cl. A01K 61/60 (2017.01) A01K 61/10 (2017.01) A01K 61/50 (2017.01) A01K 61/80 (2017.01)**

[25] EN

[54] **DYNAMIC BUOYANCY SYSTEM FOR SUBMERSIBLE PEN**

[54] **SYSTEME DE FLOTTABILITE DYNAMIQUE POUR ENCLOS SUBMERSIBLE**

[72] SELBY, THOMAS, US  
[72] GACE, LANGLEY R., US  
[72] PENNER, MARK, US  
[72] LAUGHLIN, JOSEPH L., US  
[71] INNOVASEA SYSTEMS, INC., US  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/US2022/030390)  
[87] (WO2022/246290)  
[30] US (63/191,317) 2021-05-20

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[21] **3,219,486**  
[13] A1

[51] **Int.Cl. C25C 1/14 (2006.01) C25C 1/18 (2006.01) C25D 3/32 (2006.01) C25D 3/34 (2006.01) C25D 3/36 (2006.01)**

[25] EN

[54] **SULFONATE ELECTROPLATING BATH, PROCESS FOR REFINING METAL BY ELECTROLYTIC DEPOSITING AND PROCESS FOR CONTROLLING METAL MORPHOLOGY IN ELECTROLYTIC REFINING**

[54] **BAIN DE DEPOT ELECTROLYTIQUE DE SULFONATE, PROCEDE DE RAFFINAGE D'UN METAL PAR DEPOT ELECTROLYTIQUE ET PROCEDE DE REGULATION DE LA MORPHOLOGIE D'UN METAL DANS L'ELECTRORAFFINAGE**

[72] ZHU, SI JUN, CN  
[72] SONG, JIN BO, CN  
[72] XIA, JING CHENG, CN  
[72] CHEN, YONG MING, CN  
[72] CHANG, CONG, CN  
[72] LI, YOU GANG, CN  
[72] XIANG, CHANG LIU, CN  
[72] YANG, SHENG HAI, CN  
[71] BASF SE, DE  
[85] 2023-11-17  
[86] 2022-05-12 (PCT/EP2022/062881)  
[87] (WO2022/243145)  
[30] CN (PCT/CN2021/094819) 2021-05-20

[21] **3,219,487**  
[13] A1

[25] EN

[54] **LIPID PARTICLES CONTAINING A TRUNCATED BABOON ENDOGENOUS RETROVIRUS (BAEV) ENVELOPE GLYCOPROTEIN AND RELATED METHODS AND USES**

[54] **PARTICULES LIPIDIQUES CONTENANT UNE GLYCOPROTEINE D'ENVELOPPE DE RETROVIRUS ENDOGENE DE BABOUIN (BAEV) TRONQUEE ET METHODES ET UTILISATIONS ASSOCIEES**

[72] MULLIGAN, RICHARD C., US  
[72] VOLLES, MICHAEL J., US  
[71] SANA BIOTECHNOLOGY, INC., US  
[85] 2023-11-17  
[86] 2022-05-27 (PCT/US2022/031459)  
[87] (WO2022/251712)  
[30] US (63/194,880) 2021-05-28

[21] **3,219,488**  
[13] A1

[51] **Int.Cl. F02C 7/055 (2006.01)**

[25] EN

[54] **SYSTEMS AND METHODS ASSOCIATED WITH A REMOVABLE INLET SHIELD**

[54] **SYSTEMES ET PROCEDES ASSOCIES A UN ECRAN D'ENTREE AMOVIBLE**

[72] DANDACHLI, JOE, US  
[71] PTP TURBO SOLUTIONS, LLC., US  
[85] 2023-11-17  
[86] 2021-06-03 (PCT/US2021/035584)  
[87] (WO2022/256010)

[21] **3,219,490**  
[13] A1

[51] **Int.Cl. C07D 498/04 (2006.01)**

[25] EN

[54] **SUBSTITUTED CARBAMATE MACROCYCLIC COMPOUNDS AND RELATED METHODS OF TREATMENT**

[54] **COMPOSES MACROCYCLIQUES DE CARBAMATE SUBSTITUES ET METHODES DE TRAITEMENT ASSOCIEES**

[72] PENNINGTON, LEWIS D., US  
[72] CHOI, YOUNGGI, US  
[72] HUYNH, HOAN, US  
[72] AQUILA, BRIAN M., US  
[72] MUGGE, INGO ANDREAS, US  
[72] HU, YUAN, US  
[72] WOODS, JAMES R., US  
[72] RAYMER, BRIAN KENNETH, US  
[72] BENTZIEN, JORG MARTIN, US  
[72] LEHMANN, JONATHAN WARD, US  
[72] HALE, MICHAEL R., US  
[71] ALKERMES, INC., US  
[85] 2023-11-17  
[86] 2022-05-25 (PCT/US2022/030841)  
[87] (WO2022/251304)  
[30] US (63/193,256) 2021-05-26

[21] **3,219,491**  
[13] A1

[51] **Int.Cl. G01N 3/58 (2006.01) G06N 20/00 (2019.01)**

[25] EN

[54] **ANALYTICS FOR ABRASIVE PRODUCTS AND PROCESSES**

[54] **ANALYSES POUR PRODUITS ABRASIFS ET PROCESSUS**

[72] IYENGAR, SUJATHA K., US  
[72] TADEPALLI, RAJAPPA, US  
[72] ANGRISH, ATIN, US  
[72] BEKE, GRACE O., US  
[72] SRINIVASAN, SIDDARTH, US  
[72] SAUCIER, KENNETH A., US  
[72] FITZGERALD, CHRISTOPHER M., US  
[72] RUTKIEWICZ, BRIAN P., US  
[72] BARRAGAN, ALFREDO OMAR, US  
[72] BRIGHT, ROBIN M., US  
[71] SAINT-GOBAIN ABRASIVES, INC., US  
[71] SAINT-GOBAIN ABRASIFS, FR  
[85] 2023-11-17  
[86] 2022-06-01 (PCT/US2022/072678)  
[87] (WO2022/256803)  
[30] US (63/196,642) 2021-06-03

[21] **3,219,492**  
[13] A1

[25] EN

[54] **CORNER GUARD FOR A WORK IMPLEMENT ASSEMBLY**

[54] **PROTECTION D'ANGLE POUR ENSEMBLE OUTIL DE TRAVAIL**

[72] BJERKE, NATHAN R., US  
[72] TANCIN, MICHAEL, AU  
[72] SINN, ERIC T., US  
[71] CATERPILLAR INC., US  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/US2022/029949)  
[87] (WO2022/256179)  
[30] US (17/338,025) 2021-06-03

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[21] **3,219,494**  
[13] A1

[51] **Int.Cl. F16B 5/07 (2006.01)**  
[25] EN  
[54] **INTERLOCKABLE WALL REINFORCEMENT PANEL, WALL REINFORCEMENT ASSEMBLY AND METHOD FOR WALL REINFORCEMENT**  
[54] **PANNEAU DE RENFORCEMENT MURAL A EMBOITEMENT, ENSEMBLE DE RENFORCEMENT MURAL ET PROCEDE DE RENFORCEMENT MURAL**  
[72] DE LANGE, ALBERTUS JOHANNES, NL  
[71] B. DE LANGE HOLDING B.V., NL  
[71] J. VAN KLINKEN HOLDING B.V., NL  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/NL2022/050274)  
[87] (WO2022/245213)  
[30] NL (2028247) 2021-05-19

[21] **3,219,495**  
[13] A1

[51] **Int.Cl. A61K 31/519 (2006.01) A61P 17/00 (2006.01) A61P 17/04 (2006.01)**  
[25] EN  
[54] **RUXOLITINIB FOR THE TREATMENT OF PRURIGO NODULARIS**  
[54] **RUXOLITINIB POUR LE TRAITEMENT DU PRURIGO NODULAIRE**  
[72] WENZEL, JORG, DE  
[72] SMITH, PAUL, US  
[71] INCYTE CORPORATION, US  
[85] 2023-11-01  
[86] 2022-05-03 (PCT/US2022/027393)  
[87] (WO2022/235617)  
[30] US (63/183,225) 2021-05-03

[21] **3,219,496**  
[13] A1

[51] **Int.Cl. A61K 35/17 (2015.01) A61P 37/02 (2006.01)**  
[25] EN  
[54] **A METHOD FOR PRODUCING BLOOD PROGENITOR AND PROGENITOR T CELLS, RESULTING CELLS AND METHODS AND USES THEREOF**  
[54] **PROCEDE DE PRODUCTION DE CELLULES PROGENITRICES SANGUINES ET DE LYMPHOCYTES T PROGENITEURS, CELLULES RESULTANTES AINSI QUE LEURS PROCEDES ET LEURS UTILISATIONS**  
[72] ZANDSTRA, PETER WILLIAM, CA  
[72] MICHAELS, YALE S., CA  
[71] THE UNIVERSITY OF BRITISH COLUMBIA, CA  
[85] 2023-11-17  
[86] 2022-05-18 (PCT/CA2022/050789)  
[87] (WO2022/241558)  
[30] US (63/190,037) 2021-05-18  
[30] US (63/276,887) 2021-11-08

[21] **3,219,497**  
[13] A1

[51] **Int.Cl. E21B 7/06 (2006.01) E21B 23/06 (2006.01) E21B 29/00 (2006.01) E21B 34/06 (2006.01) E21B 34/10 (2006.01)**  
[25] EN  
[54] **MILL, DOWNHOLE TOOL WITH MILL, METHOD AND SYSTEM**  
[54] **FRAISE, OUTIL DE FOND DE TROU AVEC FRAISE, PROCEDE ET SYSTEME**  
[72] NGUYEN, TUAN, US  
[71] BAKER HUGHES OILFIELD OPERATIONS LLC, US  
[85] 2023-11-17  
[86] 2022-06-02 (PCT/US2022/031924)  
[87] (WO2022/256504)  
[30] US (17/339,077) 2021-06-04

[21] **3,219,498**  
[13] A1

[51] **Int.Cl. B01D 29/54 (2006.01) B01D 29/15 (2006.01)**  
[25] EN  
[54] **SELF-RELEASING FILTER CONNECTOR**  
[54] **CONNECTEUR DE FILTRE A LIBERATION AUTOMATIQUE**  
[72] HARRIS, JAMES D., US  
[72] WALLACE, CHRISTOPHER D., US  
[71] FILTRATION TECHNOLOGY CORPORATION, US  
[85] 2023-11-17  
[86] 2022-07-21 (PCT/US2022/037947)  
[87] (WO2022/251755)

[21] **3,219,499**  
[13] A1

[51] **Int.Cl. A61P 3/04 (2006.01)**  
[25] EN  
[54] **SYNERGISTIC EFFECTS ON WEIGHT LOSS, IMPROVED QUALITY OF LIFE AND GASTRO-INTESTINAL SIDE EFFECTS WITH A COMPOSITION OF ORLISTAT AND ACARBOSE**  
[54] **EFFETS SYNERGIQUES SUR LA PERTE DE POIDS, L'AMELIORATION DE LA QUALITE DE VIE ET LES EFFETS SECONDAIRES GASTRO-INTESTINAUX AVEC UNE COMPOSITION D'ORLISTAT ET D'ACARBOSE**  
[72] GRUDEN, JAN STEFAN PERSSON, SE  
[72] FORSLUND, ANDERS, SE  
[72] HOLMBACK, ULF, SE  
[72] SODERHALL, JAN ARVID, SE  
[72] ALDERBORN, GORAN, SE  
[71] EMPROS PHARMA AB, SE  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/EP2022/063746)  
[87] (WO2022/243525)  
[30] EP (21175174.8) 2021-05-21  
[30] EP (22154200.4) 2022-01-31

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[21] **3,219,500**  
[13] A1

[51] **Int.Cl. A61K 31/522 (2006.01) A61K 31/7076 (2006.01) A61K 31/708 (2006.01) A61K 45/06 (2006.01) A61P 31/12 (2006.01)**

[25] EN

[54] **TREATMENT USING AN ANTIVIRAL COMPOUND AND NITAZOXANIDE**

[54] **TRAITEMENT UTILISANT UN COMPOSE ANTIVIRAL ET DU NITAZOXANIDE**

[72] HENDERSON, THEODORE, US

[71] HENDERSON, THEODORE, US

[85] 2023-11-17

[86] 2021-05-28 (PCT/US2021/034818)

[87] (WO2022/250692)

[21] **3,219,501**  
[13] A1

[51] **Int.Cl. H02G 7/12 (2006.01)**

[25] EN

[54] **COLLAPSIBLE BUNDLE SPACER**

[54] **ESPACEUR DE FAISCEAU PLIABLE**

[72] WATERSCHOOT, DIRK, US

[72] CIESIELCZYK, BENJAMIN FRANKLIN, US

[72] CLINES, CAMERON, US

[72] BELL, DOUGLAS, US

[72] LENARDOS, DEREK, US

[71] PREFORMED LINE PRODUCTS CO., US

[85] 2023-11-17

[86] 2022-05-17 (PCT/US2022/029595)

[87] (WO2022/245799)

[30] US (63/189,346) 2021-05-17

[21] **3,219,503**  
[13] A1

[51] **Int.Cl. C08G 61/02 (2006.01) C08G 77/442 (2006.01)**

[25] EN

[54] **BIOSTABLE POLYMER BRUSHES WITH DEFINED VISCOSITY AND OPTICAL PROPERTIES FOR USE IN A NOVEL INTRAOCULAR LENS**

[54] **BROSSES POLYMERES BIOSTABLES AYANT UNE VISCOSITE ET DES PROPRIETES OPTIQUES DEFINIES POUR UNE UTILISATION DANS UN NOUVEL IMPLANT INTRAOCULAIRE**

[72] BECKER, MATTHEW L., US

[72] KARAYILAN, METIN, US

[72] CLAMEN, LIANE, US

[71] DUKE UNIVERSITY, US

[71] ADAPTIENS, LLC, US

[85] 2023-11-17

[86] 2022-05-20 (PCT/US2022/030255)

[87] (WO2022/246198)

[30] US (63/191,018) 2021-05-20

[21] **3,219,504**  
[13] A1

[51] **Int.Cl. F24F 13/30 (2006.01)**

[25] EN

[54] **WALL-MOUNTED AIR CONDITIONER**

[54] **CLIMATISEUR A MONTAGE MURAL**

[72] ZHOU, BAISONG, CN

[72] WU, DUODE, CN

[72] YANG, YUAN, CN

[72] LI, BO, CN

[72] WAN, YONGQIANG, CN

[72] SU, QIQIN, CN

[72] TU, YUNCHONG, CN

[71] GD MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN

[71] HEFEI MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN

[85] 2023-11-17

[86] 2022-02-11 (PCT/CN2022/076091)

[87] (WO2022/252681)

[30] CN (202121216517.6) 2021-06-01

[21] **3,219,505**  
[13] A1

[51] **Int.Cl. A47L 11/28 (2006.01) A47L 11/40 (2006.01) G01N 21/27 (2006.01)**

[25] EN

[54] **CLEANING APPARATUS AND DIRT DETECTION METHOD**

[54] **DISPOSITIF DE NETTOYAGE ET PROCEDE DE DETECTION DE SALETE**

[72] YAN, CHENGZHI, CN

[72] LEI, PENG, CN

[71] BEIJING ROBOROCK TECHNOLOGY CO., LTD., CN

[85] 2023-11-17

[86] 2021-10-19 (PCT/CN2021/124754)

[87] (WO2022/247109)

[30] CN (202110586184.4) 2021-05-27

[21] **3,219,506**  
[13] A1

[51] **Int.Cl. C07D 498/08 (2006.01) C07D 498/18 (2006.01)**

[25] EN

[54] **SUBSTITUTED FUSED BICYCLIC MACROCYCLIC COMPOUNDS AND RELATED METHODS OF TREATMENT**

[54] **COMPOSES MACROCYCLIQUES BICYCLIQUES FUSIONNES SUBSTITUES ET METHODES DE TRAITEMENT ASSOCIEES**

[72] HUYNH, HOAN, US

[72] PENNINGTON, LEWIS D., US

[72] CHOI, YOUNGGI, US

[72] AQUILA, BRIAN M., US

[72] MUGGE, INGO ANDREAS, US

[72] HU, YUAN, US

[72] WOODS, JAMES R., US

[72] RAYMER, BRIAN KENNETH, US

[72] BENTZIEN, JORG MARTIN, US

[72] LEHMANN, JONATHAN WARD, US

[72] HALE, MICHAEL R., US

[71] ALKERMES, INC., US

[85] 2023-11-17

[86] 2022-05-25 (PCT/US2022/030839)

[87] (WO2022/251302)

[30] US (63/193,243) 2021-05-26

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[21] **3,219,507**  
[13] A1

[51] **Int.Cl. C07D 401/12 (2006.01) C07D 241/12 (2006.01)**  
[25] EN  
[54] **RNA-TARGETING LIGANDS, COMPOSITIONS THEREOF, AND METHODS OF MAKING AND USING THE SAME**  
[54] **LIGANDS DE CIBLAGE D'ARN, LEURS COMPOSITIONS ET PROCEDES DE FABRICATION ET D'UTILISATION ASSOCIES**  
[72] WEEKS, KEVIN, US  
[72] AUBE, JEFFREY, US  
[72] LI, KELIN, US  
[72] ZELLER, MEREDITH, US  
[71] THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, US  
[85] 2023-11-17  
[86] 2022-06-01 (PCT/US2022/031736)  
[87] (WO2022/256382)  
[30] US (63/195,779) 2021-06-02

[21] **3,219,508**  
[13] A1

[51] **Int.Cl. A61P 3/04 (2006.01)**  
[25] EN  
[54] **REDUCED REBOUND EFFECTS IN SUBJECTS TREATED FOR OVERWEIGHT OR OBESITY**  
[54] **EFFETS DE REBOND REDUITS CHEZ DES PATIENTS TRAITES POUR UN SURPOIDS OU UNE OBESITE**  
[72] GRUDEN, JAN STEFAN PERSSON, SE  
[72] FORSLUND, ANDERS, SE  
[72] HOLMBACK, ULF, SE  
[72] SODERHALL, JAN ARVID, SE  
[72] ALDERBORN, GORAN, SE  
[71] EMPROS PHARMA AB, SE  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/EP2022/063772)  
[87] (WO2022/243534)  
[30] EP (21175175.5) 2021-05-21  
[30] EP (22154203.8) 2022-01-31

[21] **3,219,509**  
[13] A1

[51] **Int.Cl. C04B 26/04 (2006.01)**  
[25] EN  
[54] **READY-MIXED DRYING-TYPE JOINT COMPOUNDS CONTAINING PH BUFFER SYSTEMS**  
[54] **COMPOSES DE JOINTS DE TYPE A SECHAGE PRETS A L'EMPLOI CONTENANT DES SYSTEMES TAMPONS DE PH**  
[72] CIMAGLIO, SCOTT D., US  
[72] WEINBERGER, RENEE J., US  
[71] KNAUF GIPS KG, DE  
[85] 2023-11-17  
[86] 2022-06-03 (PCT/EP2022/025262)  
[87] (WO2022/253469)  
[30] US (63/196,888) 2021-06-04  
[30] US (17/663,006) 2022-05-11

[21] **3,219,510**  
[13] A1

[51] **Int.Cl. G06V 10/141 (2022.01) G06V 10/143 (2022.01) G06V 10/74 (2022.01) G06V 10/88 (2022.01) G06V 20/80 (2022.01)**  
[25] EN  
[54] **SYSTEM AND METHOD FOR OBJECT RECOGNITION UTILIZING REFLECTIVE LIGHT BLOCKING**  
[54] **SYSTEME ET PROCEDE DE RECONNAISSANCE D'OBJETS UTILISANT UN BLOCAGE DE LUMIERE REFLECHISSANT**  
[72] CHILDERS, MATTHEW IAN, US  
[72] KURTOGLU, YUNUS EMRE, US  
[72] BERENDS, DAVID, US  
[72] FARIS, GREGORY W., US  
[72] SALGIAN, GARBIS, US  
[72] PIACENTINO, MICHAEL, US  
[71] BASF COATINGS GMBH, DE  
[71] SRI INTERNATIONAL, US  
[85] 2023-11-17  
[86] 2022-05-11 (PCT/EP2022/062797)  
[87] (WO2022/248225)  
[30] US (63/193,299) 2021-05-26

[21] **3,219,511**  
[13] A1

[25] EN  
[54] **DOOR SEAL**  
[54] **JOINT D'ETANCHEITE DE PORTE**  
[72] GAL, STELIAN GABRIEL, CA  
[72] BHARAJ, BHUPINDER, CA  
[72] NEAGOE, GABRIEL, CA  
[72] STEWART, CHRISTOPHER J.H., CA  
[71] SCICAN LTD., CA  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/CA2022/050812)  
[87] (WO2022/241572)  
[30] US (17/327,402) 2021-05-21

[21] **3,219,513**  
[13] A1

[51] **Int.Cl. F24F 1/00 (2019.01) F24F 1/0059 (2019.01) F24F 1/0067 (2019.01)**  
[25] EN  
[54] **WALL-MOUNTED AIR CONDITIONER**  
[54] **CLIMATISEUR MONTE SUR UNE PAROI**  
[72] ZHOU, BAISONG, CN  
[72] WU, DUODE, CN  
[72] YANG, YUAN, CN  
[72] LI, BO, CN  
[72] WAN, YONGQIANG, CN  
[72] SU, QIQIN, CN  
[72] TU, YUNCHONG, CN  
[71] GD MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN  
[71] HEFEI MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN  
[85] 2023-11-17  
[86] 2022-02-11 (PCT/CN2022/076090)  
[87] (WO2022/252680)  
[30] CN (202121216342.9) 2021-06-01

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[21] **3,219,514**  
[13] A1

[25] EN  
[54] **FLUID DELIVERY SYSTEMS AND METHODS OF TREATMENT**  
[54] **SYSTEMES DE DISTRIBUTION DE FLUIDE ET PROCEDES DE TRAITEMENT**  
[72] MARTIN, BRYN, US  
[72] KHANI, MOHAMMADREZA, US  
[72] SASS, LUCAS, US  
[72] ARTERS, OSTIN, US  
[72] SATER, STUART, US  
[72] SINGH, DEEP ARJUN, US  
[72] ANAND, PJ, US  
[72] WASHBURN, THOMAS T., US  
[72] SUBRAMANIAN, KRISHNA, US  
[71] ALCYONE THERAPEUTICS, INC., US  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/US2022/029996)  
[87] (WO2022/246042)  
[30] US (63/201,941) 2021-05-19

[21] **3,219,517**  
[13] A1

[51] **Int.Cl. A61K 47/68 (2017.01) C07K 16/28 (2006.01)**  
[25] EN  
[54] **AGENTS FOR DIRECTED CONJUGATION TECHNIQUES AND CONJUGATED PRODUCTS**  
[54] **AGENTS POUR TECHNIQUES DE CONJUGAISON DIRIGEE ET PRODUITS CONJUGUES**  
[72] KAZMIERSKI, WIESLAW, US  
[72] DUBOWCHIK, GENE M., US  
[72] CALDWELL, REESE M., US  
[72] SPIEGEL, DAVID ADAM, US  
[71] BIOHAVEN THERAPEUTICS LTD., US  
[85] 2023-11-17  
[86] 2022-05-17 (PCT/US2022/029535)  
[87] (WO2022/245759)  
[30] US (63/189,522) 2021-05-17

[21] **3,219,519**  
[13] A1

[51] **Int.Cl. C25B 3/03 (2021.01) C25B 3/07 (2021.01) C25B 3/25 (2021.01) C25B 3/26 (2021.01) C25B 9/19 (2021.01) C25B 13/02 (2006.01) C25B 13/08 (2006.01) C25B 15/08 (2006.01)**  
[25] EN  
[54] **SYSTEM FOR ELECTROCATALYTIC CONVERSION OF CARBON OXIDES TO MULTICARBON PRODUCTS USING A STATIONARY CATHOLYTE LAYER AND RELATED PROCESS**  
[54] **SYSTEME DE CONVERSION ELECTROCATALYTIQUE D'OXYDES DE CARBONE EN PRODUITS MULTICARBONES A L'AIDE D'UNE COUCHE DE CATHOLYTE FIXE ET PROCEDE ASSOCIE**  
[72] SINTON, DAVID, CA  
[72] SARGENT, EDWARD, CA  
[72] XIE, KE, CA  
[72] MIAO, RUI KAI, CA  
[71] TOTALENERGIES ONETECH, FR  
[71] THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORONTO, CA  
[85] 2023-11-17  
[86] 2022-06-10 (PCT/EP2022/065823)  
[87] (WO2022/263316)  
[30] US (63/210,675) 2021-06-15

[21] **3,219,521**  
[13] A1

[51] **Int.Cl. A63B 21/055 (2006.01)**  
[25] EN  
[54] **A SENSOR-ENABLED PLATFORM CONFIGURED TO MEASURE ATHLETIC ACTIVITY**  
[54] **PLATEFORME ACTIVEE PAR CAPTEUR, CONCUE POUR MESURER L'ACTIVITE ATHLETIQUE**  
[72] GRAHAM, MAT, AU  
[72] WARD, MATTHEW, AU  
[71] HIT TEKK PTY LTD, AU  
[85] 2023-11-17  
[86] 2022-05-18 (PCT/AU2022/050480)  
[87] (WO2022/241516)  
[30] AU (2021901479) 2021-05-18  
[30] AU (2021221661) 2021-08-25  
[30] AU (2021903980) 2021-12-09  
[30] AU (2022900585) 2022-03-10

[21] **3,219,523**  
[13] A1

[25] EN  
[54] **METHOD OF MAKING A LOW-SILICONE OIL SYSTEM FOR A MEDICAL INJECTION DEVICE**  
[54] **PROCEDE DE FABRICATION DE SYSTEME D'HUILE A FAIBLE TENEUR EN SILICONE POUR DISPOSITIF D'INJECTION MEDICAL**  
[72] PERRIN, ELOISE, FR  
[72] JOUFFRAY, SEBASTIEN, FR  
[72] LEHEE, GUILLAUME, FR  
[72] RODRIGUEZ SAN JUAN, NESTOR, US  
[72] DELEUIL, NICOLAS, FR  
[71] BECTON, DICKINSON AND COMPANY, US  
[71] BECTON DICKINSON FRANCE, FR  
[85] 2023-11-17  
[86] 2022-06-03 (PCT/EP2022/065190)  
[87] (WO2022/254007)  
[30] EP (21305749.0) 2021-06-03

[21] **3,219,524**  
[13] A1

[51] **Int.Cl. A47K 11/04 (2006.01) A47K 11/08 (2006.01) B05B 1/12 (2006.01) B05B 12/14 (2006.01)**  
[25] EN  
[54] **FLUSHABLE COMMODE STERILIZATION AND BIDET SANITIZATION SYSTEM**  
[54] **SYSTEME DE STERILISATION DE FAUTEUIL ET D'ASSAINISSEMENT DE BIDET RINCABLE**  
[72] GUYTON, DEAN L., US  
[71] GUYTON, DEAN L., US  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/US2022/030095)  
[87] (WO2022/246103)  
[30] US (63/258,660) 2021-05-19

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[21] **3,219,525**  
[13] A1

[51] **Int.Cl. C07D 403/06 (2006.01) A61K 31/497 (2006.01)**

[25] EN

[54] **METHODS OF SYNTHESIS OF HETEROARYL DERIVATIVES OF TRIAZOLYL ACRYLAMIDES AND CRYSTALLINE FORMS**

[54] **PROCEDES DE SYNTHESE DE DERIVES HETEROARYLES DE TRIAZOLYL ACRYLAMIDES ET DE FORMES CRISTALLINES**

[72] BALOGLU, ERKAN, US

[72] AUSTAD, BRIAN C., US

[72] ROE, DAVID G., CA

[72] LEDUC, ANDREW, US

[72] GOTTSCHLING, STEPHEN EDMUND, CA

[72] HECKER, EVAN, US

[71] KARYOPHARM THERAPEUTICS INC., US

[85] 2023-11-17

[86] 2022-05-20 (PCT/US2022/030294)

[87] (WO2022/246227)

[30] US (63/190,987) 2021-05-20

[21] **3,219,527**  
[13] A1

[51] **Int.Cl. B09B 3/40 (2022.01) C01B 3/06 (2006.01) C01B 3/08 (2006.01) C01F 7/02 (2022.01)**

[25] EN

[54] **HYDROTHERMAL PROCESS FOR PRODUCING HYDROGEN**

[54] **PROCEDE HYDROTHERMIQUE DE PRODUCTION D'HYDROGENE**

[72] SCHRAUD, ERIC I., US

[72] NGUYEN, HUYNH DONG, US

[72] SCHRAUD, MATTHEW, US

[71] SCHRAUD, ERIC I., US

[71] NGUYEN, HUYNH DONG, US

[71] SCHRAUD, MATTHEW, US

[85] 2023-11-17

[86] 2022-05-20 (PCT/US2022/030336)

[87] (WO2022/246252)

[30] US (63/191,298) 2021-05-20

[30] US (63/231,579) 2021-08-10

[21] **3,219,528**  
[13] A1

[51] **Int.Cl. D21H 19/18 (2006.01) D21H 19/28 (2006.01) D21H 19/34 (2006.01) D21H 19/40 (2006.01) D21H 19/52 (2006.01) D21H 19/54 (2006.01) D21H 19/84 (2006.01)**

[25] EN

[54] **COATED PAPER FOR USE AS PACKAGING MATERIAL**

[54] **PAPIER COUCHE DESTINE A ETRE UTILISE COMME MATERIAU D'EMBALLAGE**

[72] LEBSANFT, MARTIN, DE

[72] NIEDERHUBER, ARMIN, DE

[72] GRAVOT, SIMON, DE

[72] KARL, PETER, DE

[71] NEENAH GESSNER GMBH, DE

[85] 2023-11-17

[86] 2022-05-19 (PCT/EP2022/063599)

[87] (WO2022/243445)

[30] EP (PCT/EP2021/063645) 2021-05-21

[21] **3,219,529**  
[13] A1

[51] **Int.Cl. F03B 13/18 (2006.01) F03B 13/20 (2006.01)**

[25] EN

[54] **WAVE ENERGY CAPTURING DEVICE**

[54] **DISPOSITIF DE CAPTURE D'ENERGIE HOULOMOTRICE**

[72] FOSTER, GRAHAM, GB

[71] MARINE POWER SYSTEMS LIMITED, GB

[85] 2023-11-17

[86] 2022-06-24 (PCT/EP2022/067355)

[87] (WO2022/269039)

[30] GB (2109183.0) 2021-06-25

[30] GB (2116953.7) 2021-11-24

[21] **3,219,530**  
[13] A1

[51] **Int.Cl. A61B 5/151 (2006.01) A61B 5/157 (2006.01)**

[25] EN

[54] **SELF-CONTAINED DERMAL PATCH FOR BLOOD ANALYSIS**

[54] **TIMBRE DERMIQUE AUTONOME POUR L'ANALYSE DU SANG**

[72] NAWANA, NAMAL, US

[71] SATIO, INC., US

[85] 2023-11-17

[86] 2022-05-18 (PCT/US2022/029829)

[87] (WO2022/245941)

[30] US (63/190,700) 2021-05-19

[21] **3,219,531**  
[13] A1

[51] **Int.Cl. E06B 9/72 (2006.01)**

[25] EN

[54] **ANTENNA FOR A MOTORIZED WINDOW TREATMENT**

[54] **ANTENNE POUR HABILLAGE DE FENETRE MOTORISE**

[72] DIEHL, MARISSA, US

[72] KIRBY, DAVID A., US

[72] QU, SHENG, US

[72] STEINMETZ, JOHN M., US

[71] LUTRON TECHNOLOGY COMPANY LLC, US

[85] 2023-11-17

[86] 2022-05-26 (PCT/US2022/031175)

[87] (WO2022/251530)

[30] US (63/193,433) 2021-05-26

[30] US (63/227,252) 2021-07-29

[21] **3,219,533**  
[13] A1

[25] EN

[54] **METHODS FOR INHIBITING RAS**

[54] **PROCEDES D'INHIBITION DE RAS**

[72] SEAMON, KYLE, US

[71] REVOLUTION MEDICINES, INC., US

[85] 2023-11-17

[86] 2022-05-25 (PCT/US2022/030823)

[87] (WO2022/251292)

[30] US (63/192,837) 2021-05-25

[21] **3,219,534**  
[13] A1

[51] **Int.Cl. A01N 43/16 (2006.01)**

[25] EN

[54] **USE OF QUASSIA-EXTRACT FOR A SEED TREATMENT AS INSECTICIDE**

[54] **UTILISATION D'UN EXTRAIT DE QUASSIA EN TANT QU'INSECTICIDE POUR UN TRAITEMENT DE SEMENCES**

[72] HOLZFUSS, CONSTANZE, DE

[71] KWS SAAT SE & CO. KGAA, DE

[85] 2023-11-17

[86] 2022-05-19 (PCT/EP2022/063519)

[87] (WO2022/243407)

[30] EP (21174695.3) 2021-05-19

## PCT Applications Entering the National Phase

[21] <b>3,219,535</b> [13] A1	[21] <b>3,219,537</b> [13] A1	[21] <b>3,219,541</b> [13] A1
<p>[51] <b>Int.Cl. G06Q 10/10 (2023.01)</b> [25] EN [54] <b>SYSTEMS AND METHODS FOR IMPROVED USER-REVIEWER INTERACTION USING ENHANCED ELECTRONIC DOCUMENTS</b> [54] <b>SYSTEMES ET PROCEDES POUR UNE INTERACTION UTILISATEUR-REVISEUR AMELIOREE A L'AIDE DE DOCUMENTS ELECTRONIQUES AMELIORES</b> [72] GLASE, JOHN, US [72] DAYNARD, KIP, CA [72] FREUNDLICH, JAMES, US [71] BOLD LIMITED, BM [85] 2023-11-17 [86] 2022-03-18 (PCT/US2022/020869) [87] (WO2022/245420) [30] US (63/191,249) 2021-05-20 [30] US (17/592,669) 2022-02-04</p>	<p>[25] EN [54] <b>METHOD OF TREATING RNA REPEAT MEDIATED DISEASES WITH RNA REPEAT BINDING COMPOUND</b> [54] <b>PROCEDE DE TRAITEMENT DE MALADIES A MEDIATION PAR DES REPETITIONS D'ARN AYANT UN COMPOSE DE LIAISON DE REPETITION D'ARN</b> [72] SNAPE, MICHAEL, GB [71] AMO PHARMA LTD., GB [85] 2023-11-17 [86] 2022-05-20 (PCT/IB2022/054748) [87] (WO2022/243973) [30] US (63/191,531) 2021-05-21</p>	<p>[51] <b>Int.Cl. B05B 15/55 (2018.01)</b> [25] EN [54] <b>SOLVENT DOSING FOR A SPRAY APPLICATOR</b> [54] <b>DOSAGE DE SOLVANT POUR APPLICATEUR DE PULVERISATION</b> [72] INGEBRAND, JOHN R., US [72] PELLIN, CHRISTOPHER J., US [72] WELDON, JUSTIN J., US [72] TIX, JOSEPH E., US [71] GRACO MINNESOTA INC., US [85] 2023-11-17 [86] 2022-06-03 (PCT/US2022/032127) [87] (WO2022/256630) [30] US (63/196,965) 2021-06-04</p>
[21] <b>3,219,536</b> [13] A1	[21] <b>3,219,539</b> [13] A1	[21] <b>3,219,543</b> [13] A1
<p>[51] <b>Int.Cl. B22F 10/28 (2021.01) B22F 10/362 (2021.01) B22F 10/64 (2021.01)</b> [25] EN [54] <b>METHOD FOR PRODUCING AN ALUMINIUM ALLOY PART IMPLEMENTING AN ADDITIVE MANUFACTURING TECHNIQUE WITH PREHEATING</b> [54] <b>PROCEDE DE FABRICATION D'UNE PIECE EN ALLIAGE D'ALUMINIUM METTANT EN ?UVRE UNE TECHNIQUE DE FABRICATION ADDITIVE AVEC PRECHAUFFAGE</b> [72] CHEHAB, BECHIR, FR [72] SHAHANI, RAVI, FR [71] C-TEC CONSTELLIUM TECHNOLOGY CENTER, FR [85] 2023-11-17 [86] 2022-05-24 (PCT/FR2022/050981) [87] (WO2022/208037) [30] FR (FR2105626) 2021-05-28</p>	<p>[51] <b>Int.Cl. C23C 22/07 (2006.01)</b> [25] EN [54] <b>ELECTRICALLY INSULATING COATING FOR ANISOTROPIC ELECTRICAL STEEL</b> [54] <b>REVETEMENT D'ISOLATION ELECTRIQUE POUR ACIER ANISOTROPE ELECTROTECHNIQUE</b> [72] KARENINA, LARISA SOLOMONOVNA, RU [72] PANKRATOV, MIKHAIL ALEKSANDROVICH, RU [72] ORDINARTSEV, DENIS PAVLOVICH, RU [72] ONISHCHUK, VLADISLAV LEONIDOVICH, RU [71] PUBLIC JOINT STOCK COMPANY ?NOVOLIPETSK STEEL?, RU [85] 2023-11-17 [86] 2022-05-31 (PCT/RU2022/050175) [87] (WO2022/255910) [30] RU (2021115671) 2021-05-31</p>	<p>[51] <b>Int.Cl. G01S 17/04 (2020.01) B25J 19/04 (2006.01)</b> [25] EN [54] <b>PROXIMITY SENSING AUTONOMOUS ROBOTIC SYSTEMS AND APPARATUS</b> [54] <b>SYSTEMES ET APPAREIL ROBOTIQUES AUTONOMES DE DETECTION DE PROXIMITE</b> [72] ZAMANI, NIMA, CA [72] LASSWELL, TIMOTHY, CA [71] COBIONIX CORPORATION, CA [85] 2023-11-17 [86] 2022-05-17 (PCT/CA2022/050778) [87] (WO2022/241550) [30] US (63/189,642) 2021-05-17</p>
		[21] <b>3,219,544</b> [13] A1
		<p>[25] EN [54] <b>CABLE RESTRAINTS FOR SPLICE ENCLOSURES AND SPLICE ENCLOSURES INCLUDING CABLE RESTRAINTS</b> [54] <b>DISPOSITIFS DE RETENUE DE CABLE POUR ENCEINTES D'EPISSURE ET ENCEINTES D'EPISSURE COMPRENANT DES DISPOSITIFS DE RETENUE DE CABLE</b> [72] GRUBISH, CHRISTOPHER, US [72] CLINES, CAMERON JOSEPH, US [71] PREFORMED LINE PRODUCTS CO., US [85] 2023-11-17 [86] 2022-05-19 (PCT/US2022/030088) [87] (WO2022/246099) [30] US (63/190,778) 2021-05-19</p>



## Demandes PCT entrant en phase nationale

[21] **3,219,545**  
[13] A1

[51] **Int.Cl. E03D 9/052 (2006.01)**  
[25] EN  
[54] **DEVICE FOR REMOVING ODORS AROUND A TOILET, SYSTEM HAVING SUCH DEVICES, AND METHODS OF USING THE SYSTEMS**

[54] **DISPOSITIF PERMETTANT D'ELIMINER LES ODEURS AUTOUR DE TOILETTE, SYSTEME COMPRENANT DE TELS DISPOSITIFS, ET PROCEDES D'UTILISATION DES SYSTEMES**

[72] BROWN, RICHARD SPENCE JR., US  
[71] BROWN, RICHARD SPENCE JR., US  
[85] 2023-11-17  
[86] 2022-05-18 (PCT/US2022/029864)  
[87] (WO2022/245966)  
[30] US (63/189,996) 2021-05-18

[21] **3,219,547**  
[13] A1

[51] **Int.Cl. A61K 47/14 (2017.01) A61P 5/26 (2006.01)**  
[25] EN  
[54] **PREFERRED ORAL TESTOSTERONE UNDECANOATE THERAPY TO ACHIEVE TESTOSTERONE REPLACEMENT TREATMENT**

[54] **THERAPIE A BASE D'UNDECANOATE DE TESTOSTERONE PAR VOIE ORALE PREFEREE POUR OBTENIR UN TRAITEMENT DE REMPLACEMENT DE LA TESTOSTERONE**

[72] DHINGRA, OM, US  
[72] BERNSTEIN, JAMES S., US  
[71] MARIUS PHARMACEUTICALS LLC, US  
[85] 2023-11-17  
[86] 2022-05-18 (PCT/US2022/029819)  
[87] (WO2022/245933)  
[30] US (63/190,609) 2021-05-19

[21] **3,219,548**  
[13] A1

[51] **Int.Cl. A61K 31/4168 (2006.01) A61P 1/16 (2006.01) A61P 3/04 (2006.01) A61P 3/06 (2006.01) A61P 3/10 (2006.01) A61P 9/04 (2006.01) A61P 9/10 (2006.01) A61P 9/12 (2006.01)**  
[25] EN  
[54] **METHODS OF TREATING MITOCHONDRIA-RELATED DISORDERS**

[54] **METHODES DE TRAITEMENT DE TROUBLES LIES AUX MITOCHONDRIES**

[72] KHAN, SHAHARYAR, US  
[72] JORKASKY, DIANE, US  
[71] RIVUS PHARMACEUTICALS, INC., US  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/US2022/029992)  
[87] (WO2022/246039)  
[30] US (63/191,321) 2021-05-20  
[30] US (63/222,841) 2021-07-16  
[30] US (63/307,515) 2022-02-07

[21] **3,219,550**  
[13] A1

[51] **Int.Cl. C07K 1/10 (2006.01) C07K 1/107 (2006.01)**  
[25] EN  
[54] **ANTIBODY DRUG CONJUGATES USING MATES TECHNOLOGY FOR DELIVERING CYTOTOXIC AGENTS**

[54] **CONJUGUES ANTICORPS-MEDICAMENT UTILISANT UNE TECHNOLOGIE DE COUPLAGE POUR ADMINISTRER DES AGENTS CYTOTOXIQUES**

[72] DUBOWCHIK, GENE M., US  
[72] KAZMIERSKI, WIESLAW, US  
[72] PRACITTO, RICHARD, US  
[72] CALDWELL, REESE M., US  
[71] BIOHAVEN THERAPEUTICS LTD., US  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/US2022/030070)  
[87] (WO2022/246086)  
[30] US (63/190,703) 2021-05-19

[21] **3,219,551**  
[13] A1

[51] **Int.Cl. H01G 11/56 (2013.01) H01M 10/056 (2010.01)**  
[25] EN  
[54] **COAXIAL ENERGY HARVESTING AND STORAGE**

[54] **COLLECTE ET STOCKAGE D'ENERGIE COAXIALE**

[72] SOUSA SOARES DE OLIVEIRA BRAGA, MARIA HELENA, PT  
[72] PONCES RODRIGUES DE CASTRO CAMANHO, PEDRO MANUEL, PT  
[72] DANZI, FEDERICO, PT  
[71] UNIVERSIDADE DO PORTO, PT  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/IB2022/054744)  
[87] (WO2022/243970)  
[30] PT (117244) 2021-05-20

[21] **3,219,553**  
[13] A1

[51] **Int.Cl. A24B 15/30 (2006.01) A24B 15/16 (2020.01)**  
[25] EN  
[54] **PROCESS FOR INCORPORATING ADDITIVES INTO AEROSOL-PRODUCING SUBSTRATES AND PRODUCTS MADE THEREFROM**

[54] **PROCEDE D'INCORPORATION D'ADDITIFS DANS DES SUBSTRATS PRODUISANT UN AEROSOL ET PRODUITS FABRIQUES A PARTIR DE CEUX-CI**

[72] JUDE, RAMA, LU  
[71] SWM LUXEMBOURG, LU  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/IB2022/054700)  
[87] (WO2022/243936)  
[30] US (63/191,541) 2021-05-21

## PCT Applications Entering the National Phase

[21] **3,219,554**  
[13] A1

[51] **Int.Cl. B60P 7/13 (2006.01) B60P 7/18 (2006.01) B63B 25/28 (2006.01)**  
[25] EN  
[54] **SUPPORTING ARRANGEMENT FOR A CARRIED LOAD, MORE PARTICULARLY A LOAD CARRIED ON A SHIP**  
[54] **AGENCEMENT DE SUPPORT POUR UNE CHARGE TRANSPORTEE, PLUS PARTICULIEREMENT UNE CHARGE TRANSPORTEE SUR UN NAVIRE**  
[72] ALFANO, ANDREA, IT  
[72] RAIOLA, GIANCARLO, IT  
[71] 3J MARINE S.R.L., IT  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/IB2022/054680)  
[87] (WO2022/248989)  
[30] IT (102021000013337) 2021-05-24

[21] **3,219,555**  
[13] A1

[51] **Int.Cl. C12Q 1/6806 (2018.01)**  
[25] EN  
[54] **NICK-LIGATE STLFR**  
[54] **NICK-LIGAT STLFR**  
[72] DRMANAC, RADOJE T., US  
[72] PETERS, BROCK A., US  
[72] ALEXEEV, ANDREI, US  
[72] DRMANAC, SNEZANA, US  
[72] NANISSETTI, AMULYA, US  
[71] MGI TECH CO., LTD., CN  
[85] 2023-11-17  
[86] 2022-07-22 (PCT/CN2022/107241)  
[87] (WO2023/001262)  
[30] US (63/224,731) 2021-07-22

[21] **3,219,556**  
[13] A1

[51] **Int.Cl. A61F 6/08 (2006.01) A61P 15/18 (2006.01)**  
[25] EN  
[54] **INTRAVAGINAL RING DEVICES**  
[54] **DISPOSITIFS ANNEAUX INTRAVAGINAUX**  
[72] FRIEND, DAVID, US  
[72] KIANG, JENNIFER, US  
[72] PACELLI, NICOLAS, US  
[72] WALTERS, MARK, US  
[71] DARE BIOSCIENCE, INC., US  
[85] 2023-11-17  
[86] 2022-05-25 (PCT/US2022/030968)  
[87] (WO2022/251393)  
[30] US (17/331,119) 2021-05-26

[21] **3,219,558**  
[13] A1

[51] **Int.Cl. A47J 37/07 (2006.01)**  
[25] EN  
[54] **CHARCOAL BARBECUE HAVING AN INTEGRATED COAL STARTER**  
[54] **BARBECUE AU CHARBON DE BOIS COMPORTANT UN DEMARREUR AU CHARBON INTEGRE**  
[72] BONNAERENS, WIETSE, BE  
[71] LIVWISE, BE  
[85] 2023-11-17  
[86] 2022-04-29 (PCT/IB2022/053983)  
[87] (WO2022/243770)  
[30] BE (BE2021/5402) 2021-05-18

[21] **3,219,560**  
[13] A1

[51] **Int.Cl. A23K 20/28 (2016.01) A23K 50/80 (2016.01)**  
[25] EN  
[54] **SILICIC ACID IN AQUACULTURE**  
[54] **ACIDE SILICIQUE EN AQUACULTURE**  
[72] LAANE, HENK MAARTEN, NL  
[72] VAN STEE, CORNELIS HENDRIK GEUVEL, NL  
[71] BARLAA B.V., NL  
[85] 2023-11-17  
[86] 2022-05-17 (PCT/EP2022/063347)  
[87] (WO2022/243331)  
[30] EP (21174738.1) 2021-05-19

[21] **3,219,562**  
[13] A1

[25] EN  
[54] **RETAINER FOR ORTHODONTIC TREATMENT AND METHOD OF MAKING SUCH A RETAINER**  
[54] **APPAREIL DE CONTENTION CONCU POUR UN TRAITEMENT ORTHODONTIQUE ET PROCEDE DE PRODUCTION D'UN TEL APPAREIL DE CONTENTION**  
[72] CYRON, RENE, DE  
[71] CYRON, RENE, DE  
[85] 2023-11-17  
[86] 2022-05-18 (PCT/DE2022/100374)  
[87] (WO2022/242800)  
[30] DE (10 2021 112 795.5) 2021-05-18

[21] **3,219,563**  
[13] A1

[51] **Int.Cl. H01R 4/26 (2006.01)**  
[25] EN  
[54] **CARTRIDGE APPARATUS FOR ELECTRICAL INTERCONNECTION**  
[54] **APPAREILS A CARTOUCHE POUR INTERCONNEXION ELECTRIQUE**  
[72] CAMPBELL, BRIAN, US  
[72] KIRTLEY, DAVID, US  
[72] PIHL, CHRISTOPHER JAMES, US  
[71] HELION ENERGY, INC., US  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/US2022/030005)  
[87] (WO2022/246049)  
[30] US (63/190,883) 2021-05-20

[21] **3,219,567**  
[13] A1

[51] **Int.Cl. A63G 7/00 (2006.01)**  
[25] EN  
[54] **AMUSEMENT PARK RIDE, IN PARTICULAR A ROLLERCOASTER**  
[54] **MANEGE DE PARC D'ATTRACTIONS, EN PARTICULIER DES MONTAGNES RUSSES**  
[72] HAASCH, TOBIAS, DE  
[71] MACK RIDES IP GMBH & CO. KG, DE  
[85] 2023-11-17  
[86] 2022-06-22 (PCT/EP2022/066986)  
[87] (WO2023/001470)  
[30] DE (DE 10 2021 118 616.1) 2021-07-19

[21] **3,219,568**  
[13] A1

[51] **Int.Cl. B61D 7/22 (2006.01) B61D 7/20 (2006.01)**  
[25] EN  
[54] **HOPPER CAR DISCHARGE GATE SEAL ASSEMBLY**  
[54] **ENSEMBLE JOINT D'ETANCHEITE DE REGISTRE DE VIDANGE DE WAGON-TREMIE**  
[72] VANDE SANDE, JERRY W., US  
[72] ANDREWS, CARTER RAY, US  
[72] MCGHEE, BRANT R., US  
[72] BROWN, ANDREW, US  
[72] HUCK, KENNETH W., US  
[71] TRINITY RAIL GROUP, LLC, US  
[85] 2023-11-17  
[86] 2022-05-18 (PCT/US2022/029905)  
[87] (WO2022/245995)  
[30] US (63/190,879) 2021-05-20

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[21] **3,219,569**  
[13] A1

[51] **Int.Cl. B31D 5/02 (2017.01) B31F 1/00 (2006.01) B65D 43/02 (2006.01) D21H 17/20 (2006.01) D21H 19/84 (2006.01)**

[25] EN

[54] **METHOD FOR MANUFACTURING PAPER LID FOR FOOD CONTAINER AND PAPER LID FOR FOOD CONTAINER**

[54] **PROCEDE DE FABRICATION DE COUVERCLE EN PAPIER POUR CONTENANT ALIMENTAIRE ET COUVERCLE EN PAPIER POUR CONTENANT ALIMENTAIRE**

[72] CHO, IN SEOK, KR  
[72] LEE, DONG CHUL, KR  
[71] GOLDENPACKAGE CO., LTD, KR  
[85] 2023-11-17  
[86] 2022-01-05 (PCT/KR2022/000123)  
[87] (WO2023/132378)

[21] **3,219,570**  
[13] A1

[25] EN

[54] **COMPOSITIONS AND METHODS FOR IMPROVED PROTEIN TRANSLATION FROM RECOMBINANT CIRCULAR RNAs**

[54] **COMPOSITIONS ET PROCEDES POUR UNE TRADUCTION DE PROTEINES AMELIOREE A PARTIR D'ARN CIRCULAIRES RECOMBINANTS**

[72] CHEN, ROBERT, US  
[72] CHANG, HOWARD Y., US  
[72] CHEN, CHUN-KAN, US  
[71] THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY, US  
[85] 2023-11-17  
[86] 2022-06-23 (PCT/US2022/034756)  
[87] (WO2022/271965)  
[30] US (63/215,102) 2021-06-25  
[30] US (63/232,324) 2021-08-12  
[30] US (63/320,954) 2022-03-17  
[30] US (63/353,109) 2022-06-17

[21] **3,219,572**  
[13] A1

[51] **Int.Cl. A61K 31/7048 (2006.01) A61K 45/06 (2006.01) A61P 3/10 (2006.01)**

[25] EN

[54] **PHARMACEUTICAL COMPOSITION FOR PREVENTING OR TREATING DIABETES MELLITUS IN ANIMAL OF FAMILY CANIDAE, COMPRISING ENAVOGLIFLOZIN**

[54] **COMPOSITION PHARMACEUTIQUE POUR LA PREVENTION OU LE TRAITEMENT DU DIABETE SUCRE CHEZ UN ANIMAL DE LA FAMILLE DES CANIDES, COMPRENANT DE L'ENAVOGLIFLOZIN**

[72] HUH, WAN, KR  
[72] LIM, HYUN WOO, KR  
[72] CHOI, JI SOO, KR  
[72] HAN, JU MI, KR  
[72] PARK, JOON SEOK, KR  
[71] DAEWOONG PHARMACEUTICAL CO., LTD., KR  
[85] 2023-11-17  
[86] 2022-05-20 (PCT/KR2022/007206)  
[87] (WO2022/245171)  
[30] KR (10-2021-0065733) 2021-05-21

[21] **3,219,574**  
[13] A1

[51] **Int.Cl. G02C 7/08 (2006.01)**

[25] EN

[54] **SPECTACLE LENS AND FRAME GLASSES**

[54] **LENTILLE DE LUNETTES ET MONTURE DE LUNETTES**

[72] XIA, RISHENG, CN  
[72] LI, YIYU, CN  
[72] CHEN, HAO, CN  
[72] QU, JIA, CN  
[71] SHANGHAI ISPARX MEDICAL CO., LTD, CN  
[85] 2023-11-17  
[86] 2022-01-19 (PCT/CN2022/072734)  
[87] (WO2023/065556)  
[30] CN (202111230721.8) 2021-10-22

[21] **3,219,575**  
[13] A1

[51] **Int.Cl. B64C 29/04 (2006.01) B64D 33/04 (2006.01) B64C 39/10 (2006.01) F02C 6/20 (2006.01)**

[25] EN

[54] **ADAPTIVE FLUIDIC PROPULSIVE SYSTEM**

[54] **SYSTEME DE PROPULSION FLUIDIQUE ADAPTATIF**

[72] EVULET, ANDREI, US  
[71] JETOPTERA, INC., US  
[71] EVULET, ANDREI, US  
[85] 2023-11-17  
[86] 2022-05-19 (PCT/US2022/030134)  
[87] (WO2022/251046)  
[30] US (63/190,762) 2021-05-19

[21] **3,219,576**  
[13] A1

[51] **Int.Cl. F03B 17/06 (2006.01) F03B 11/08 (2006.01) F03B 13/26 (2006.01)**

[25] EN

[54] **HYDRODYNAMIC POWER GENERATOR AND SYSTEM**

[54] **GENERATEUR D'ENERGIE HYDRODYNAMIQUE ET SYSTEME**

[72] PETERSON, WILLIAM, US  
[72] SIMILIEN, AMANDA, US  
[72] LIVINGSTON, THOMAS LOGAN, US  
[71] NEXT MARINE SOLUTIONS, INC., US  
[85] 2023-11-17  
[86] 2022-05-25 (PCT/US2022/030869)  
[87] (WO2022/251320)  
[30] US (63/192,880) 2021-05-25

[21] **3,219,577**  
[13] A1

[51] **Int.Cl. A61K 31/4045 (2006.01) C12P 13/22 (2006.01)**

[25] EN

[54] **METHODS FOR PRODUCING TRYPTAMINE DERIVATIVES.**

[54] **PROCEDES DE PRODUCTION DE DERIVES DE TRYPTAMINE.**

[72] MILNE, NICHOLAS STUART WILLIAM, DK  
[72] NIELSEN, ANNETTE MUNCH, DK  
[72] BADEN, CAMILLA KNUDSEN, DK  
[72] GALLAGE, NETHAJI JANESHAWARI, DK  
[71] OCTARINE BIO APS, DK  
[85] 2023-11-17  
[86] 2022-05-25 (PCT/EP2022/064352)  
[87] (WO2022/248635)  
[30] EP (21176391.7) 2021-05-27  
[30] EP (22151219.7) 2022-01-12

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[21] **3,219,578**  
[13] A1

[51] **Int.Cl. C01B 3/06 (2006.01)**  
[25] EN  
[54] **A PROCESS AND APPARATUS FOR THE PRODUCTION OF HYDROGEN**  
[54] **PROCEDE ET APPAREIL POUR LA PRODUCTION D'HYDROGENE**  
[72] LAU, ALBERT PUI SANG, CN  
[72] WANG, PENG, CN  
[72] TEOH, WEY YANG, CN  
[72] NG, YUN HAU, CN  
[72] KYOUNGJIN, ALICIA, CN  
[72] CHEN, BING, CN  
[71] EPRO DEVELOPMENT LIMITED, CN  
[85] 2023-11-17  
[86] 2022-05-17 (PCT/CN2022/093331)  
[87] (WO2022/242643)  
[30] AU (2021901498) 2021-05-19

[21] **3,219,582**  
[13] A1

[51] **Int.Cl. H01M 10/052 (2010.01) H01M 10/0525 (2010.01)**  
[25] EN  
[54] **FAST CHARGING QUASI-SOLID STATE LI-METAL BATTERIES ENABLED BY ?-ALUMINA SEPARATORS**  
[54] **BATTERIES LITHIUM-METAL QUASI A L'ETAT SOLIDE A CHARGE RAPIDE ACTIVEES PAR DES SEPARATEURS D'ALUMINE ?**  
[72] LIN, JERRY, US  
[72] RAFIZ, KISHEN, US  
[71] ARIZONA BOARD OF REGENTS ON BEHALF OF ARIZONA STATE UNIVERSITY, US  
[85] 2023-11-20  
[86] 2022-05-17 (PCT/US2022/072360)  
[87] (WO2022/246395)  
[30] US (63/191,052) 2021-05-20

[21] **3,219,584**  
[13] A1

[25] EN  
[54] **THROTTLE BODY AND ADAPTER**  
[54] **CORPS D'ETRANGLEMENT ET ADAPTEUR**  
[72] COOK, DOUG, US  
[72] COOK, ANDY, US  
[72] JACK, BRIAN, US  
[72] SANDAU, TYLER, US  
[71] MOTION RACEWORKS, LLC, US  
[85] 2023-11-20  
[86] 2022-05-23 (PCT/US2022/030547)  
[87] (WO2022/246321)  
[30] US (63/191,657) 2021-05-21

[21] **3,219,585**  
[13] A1

[51] **Int.Cl. F23D 14/14 (2006.01)**  
[25] EN  
[54] **BRIGHT RADIATOR**  
[54] **RADIATEUR LUMINEUX**  
[72] KREIS, EDGAR, DE  
[72] GENZEL, ALEXANDER, DE  
[72] STOHLER, TORSTEN, DE  
[72] RENNEN, THOMAS, DE  
[71] SCHWANK GMBH, DE  
[85] 2023-11-08  
[86] 2022-12-06 (PCT/EP2022/084658)  
[87] (WO2023/104827)  
[30] EP (21213687.3) 2021-12-10

[21] **3,219,586**  
[13] A1

[51] **Int.Cl. A61K 39/12 (2006.01) C07K 14/165 (2006.01)**  
[25] EN  
[54] **NOVEL PROTEIN AND NUCLEIC ACID SEQUENCES FOR COVID-19 VACCINES**  
[54] **NOUVELLES SEQUENCES DE PROTEINES ET D'ACIDES NUCLEIQUES DESTINEES A DES VACCINS CONTRE LA COVID-19**  
[72] ALLEGRETTI, MARCELLO, IT  
[72] CIMINI, ANNAMARIA, IT  
[72] BECCARI, ANDREA ROSARIO, IT  
[72] TALARICO, CARMINE, IT  
[72] MAURI, ELISABETTA MARIA ESTER, IT  
[72] CATTANI, FRANCA, IT  
[71] DOMPE' FARMACEUTICI SPA, IT  
[85] 2023-11-08  
[86] 2022-05-16 (PCT/EP2022/063214)  
[87] (WO2022/238585)  
[30] EP (21173941.2) 2021-05-14

[21] **3,219,588**  
[13] A1

[51] **Int.Cl. A61B 17/15 (2006.01) A61B 17/17 (2006.01)**  
[25] EN  
[54] **CUT GUIDE WITH INTEGRATED JOINT REALIGNMENT FEATURES**  
[54] **GUIDE DE COUPE AVEC CARACTERISTIQUES DE REALIGNEMENT D'ARTICULATION INTEGREEES**  
[72] KUYLER, ADRIAN, US  
[72] MCALEER, JODY, US  
[72] DECARBO, WILLIAM, US  
[72] SANTROCK, ROBERT, US  
[72] SCANLAN, SEAN, US  
[71] TREACE MEDICAL CONCEPTS, INC., US  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/US2022/030377)  
[87] (WO2022/246282)  
[30] US (63/190,787) 2021-05-20  
[30] US (63/246,792) 2021-09-21

[21] **3,219,589**  
[13] A1

[51] **Int.Cl. F26B 21/06 (2006.01) B29B 13/06 (2006.01)**  
[25] EN  
[54] **DRYING INSTALLATION FOR GRANULAR POLYMER MATERIAL**  
[54] **INSTALLATION DE SECHAGE DESTINEE A UN MATERIAU POLYMERE GRANULAIRE**  
[72] PIVA, RINALDO, IT  
[71] PEGASO INDUSTRIES S.P.A., IT  
[85] 2023-11-08  
[86] 2022-05-10 (PCT/IB2022/054326)  
[87] (WO2022/238888)  
[30] IT (102021000012095) 2021-05-11

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[21] **3,219,591**  
[13] A1

[51] **Int.Cl. C08K 5/134 (2006.01) C08K 5/3435 (2006.01) C08K 9/04 (2006.01) C08L 23/12 (2006.01) C08L 23/16 (2006.01) C08K 5/00 (2006.01)**

[25] EN

[54] **STABILIZED POLYMER RESIN SYSTEMS HAVING HETEROPOLYOXOMETALATES FOR ANTIMICROBIAL PROPERTIES AND USES THEREOF**

[54] **SYSTEMES DE RESINE POLYMERE STABILISEE COMPORTANT DES HETEROPOLYOXOMETALATES DESTINES A DES PROPRIETES ANTIMICROBIENNES ET LEURS UTILISATIONS**

[72] GUELEN, SIMON, FR  
[72] WALTERS, STEPHEN JOHN, GB  
[72] AUBAY, ERIC, FR  
[71] RHODIA OPERATIONS, FR  
[85] 2023-11-08  
[86] 2022-05-17 (PCT/EP2022/063309)  
[87] (WO2022/243306)  
[30] EP (21175296.9) 2021-05-21

[21] **3,219,592**  
[13] A1

[51] **Int.Cl. A61M 16/16 (2006.01) A61M 16/00 (2006.01) A61M 16/10 (2006.01)**

[25] EN

[54] **IMPROVED RESPIRATORY SUPPORT APPARATUS**

[54] **APPAREIL D'ASSISTANCE RESPIRATOIRE AMELIORE**

[72] SANSON, SAMUEL CAREY MATHEW, NZ  
[72] BURGESS, RUSSEL WILLIAM, NZ  
[71] FISHER & PAYKEL HEALTHCARE LIMITED, NZ  
[85] 2023-11-08  
[86] 2022-06-03 (PCT/IB2022/055175)  
[87] (WO2022/254383)  
[30] US (63/196,856) 2021-06-04

[21] **3,219,593**  
[13] A1

[51] **Int.Cl. C09K 8/68 (2006.01) E21B 43/26 (2006.01)**

[25] EN

[54] **HYDRAULIC FRACTURING FLUID**

[54] **FLUIDE DE FRACTURATION HYDRAULIQUE**

[72] VAN SLYKE, DONALD CURTIS, US  
[72] LU, SHAWN SHAOHUA, US  
[71] SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V., NL  
[85] 2023-11-08  
[86] 2022-05-20 (PCT/EP2022/063668)  
[87] (WO2022/248342)  
[30] US (17/329,673) 2021-05-25

[21] **3,219,594**  
[13] A1

[51] **Int.Cl. B65B 55/10 (2006.01)**

[25] EN

[54] **HOT-AIR EXTRACTION DUCT**

[54] **CONDUIT D'EXTRACTION D'AIR CHAUD**

[72] THINGELSTAD, LARS AKSEL, NO  
[71] ELOPAK ASA, NO  
[71] SHIKOKU KAKOKI CO., LTD., JP  
[85] 2023-11-20  
[86] 2022-06-03 (PCT/EP2022/065236)  
[87] (WO2022/254028)  
[30] NO (20210716) 2021-06-04

[21] **3,219,597**  
[13] A1

[51] **Int.Cl. C07D 211/40 (2006.01) A61K 31/445 (2006.01) C07C 233/00 (2006.01) C07D 211/54 (2006.01) C07D 211/98 (2006.01)**

[25] EN

[54] **NOVEL PROCESS**

[54] **NOUVEAU PROCEDE**

[72] FRASER, PAUL, GB  
[72] PALGUNA, JETTA, IN  
[72] BHARATHA, MALLESH, IN  
[72] CINQUALBRE, JOSEPHINE ELIETTE FRANCOISE, CH  
[72] MONDIERE, REGIS JEAN GEORGES, CH  
[72] TOSATTI, PAOLO, CH  
[71] F. HOFFMANN-LA ROCHE AG, CH  
[85] 2023-11-08  
[86] 2022-06-23 (PCT/EP2022/067126)  
[87] (WO2022/268935)  
[30] IN (202141028180) 2021-06-23

[21] **3,219,598**  
[13] A1

[51] **Int.Cl. C08L 23/08 (2006.01) C08L 71/02 (2006.01)**

[25] EN

[54] **FLUOROPOLYMER FREE POLYMER PROCESSING AIDS**

[54] **AUXILIAIRES DE TRAITEMENT DE POLYMERES EXEMPTS DE FLUOROPOLYMERES**

[72] TAYLOR, JARED, CA  
[72] TIKUISIS, TONY, CA  
[72] CHISHOLM, P. SCOTT, CA  
[72] AUBEE, NORMAN, CA  
[72] CHECKNITA, DOUGLAS, CA  
[71] NOVA CHEMICALS CORPORATION, CA  
[85] 2023-11-08  
[86] 2022-06-09 (PCT/IB2022/055379)  
[87] (WO2023/285888)  
[30] US (63/221,729) 2021-07-14

[21] **3,219,599**  
[13] A1

[25] EN

[54] **FILLING-MACHINE**

[54] **MACHINE DE REMPLISSAGE**

[72] THINGELSTAD, LARS AKSEL, NO  
[71] ELOPAK ASA, NO  
[71] SHIKOKU KAKOKI CO., LTD., JP  
[85] 2023-11-20  
[86] 2022-06-03 (PCT/EP2022/065233)  
[87] (WO2022/254026)  
[30] NO (20210717) 2021-06-04

[21] **3,219,600**  
[13] A1

[51] **Int.Cl. H01M 50/40 (2021.01) H01M 50/434 (2021.01) H01M 50/443 (2021.01) H01M 50/491 (2021.01)**

[25] EN

[54] **PLATE-STRUCTURED ELECTRODE-COATED ZEOLITE SEPARATORS FOR LITHIUM-METAL BATTERIES**

[54] **SEPARATEURS DE ZEOLITE REVETUS SUR ELECTRODES A STRUCTURE DE PLAQUE POUR BATTERIES AU LITHIUM-METAL**

[72] LIN, JERRY, US  
[72] RAFIZ, KISHEN, US  
[71] ARIZONA BOARD OF REGENTS ON BEHALF OF ARIZONA STATE UNIVERSITY, US  
[85] 2023-11-20  
[86] 2022-05-18 (PCT/US2022/072403)  
[87] (WO2022/246423)  
[30] US (63/191,085) 2021-05-20

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[21] **3,219,602**  
[13] A1

[51] **Int.Cl. E04H 4/08 (2006.01) B65D 88/34 (2006.01) E04H 4/10 (2006.01)**

[25] EN  
[54] **COVER DEVICE**  
[54] **DISPOSITIF DE COUVERTURE**  
[72] HOF, GEORG, AT  
[71] HOF, GEORG, AT  
[85] 2023-11-20  
[86] 2022-05-13 (PCT/AT2022/060168)  
[87] (WO2022/241492)  
[30] AT (A 50399/2021) 2021-05-20

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[21] **3,219,603**  
[13] A1

[51] **Int.Cl. C07K 16/28 (2006.01) A61K 39/00 (2006.01) A61P 35/00 (2006.01)**

[25] EN  
[54] **ANTI-TIGIT ANTIBODIES AND USE THEREOF**  
[54] **ANTICORPS ANTI-TIGIT ET LEUR UTILISATION**  
[72] KANG, YUHOI, KR  
[72] JO, HONGSEOK, KR  
[71] MEDIMABBIO INC., KR  
[85] 2023-11-08  
[86] 2022-05-10 (PCT/KR2022/006695)  
[87] (WO2022/240159)  
[30] KR (10-2021-0060014) 2021-05-10

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[21] **3,219,605**  
[13] A1

[51] **Int.Cl. H01M 4/36 (2006.01) H01M 4/505 (2010.01) H01M 4/525 (2010.01) H01M 10/052 (2010.01) C01G 53/00 (2006.01) H01M 4/62 (2006.01)**

[25] EN  
[54] **METHOD OF PREPARING POSITIVE ELECTRODE ACTIVE MATERIAL FOR LITHIUM SECONDARY BATTERY AND POSITIVE ELECTRODE ACTIVE MATERIAL PREPARED THEREBY**  
[54] **PROCEDE DE FABRICATION D'UN MATERIAU ACTIF DE CATHODE POUR BATTERIE SECONDAIRE AU LITHIUM, ET MATERIAU ACTIF DE CATHODE AINSI FABRIQUE**  
[72] JUNG, HAE JUNG, KR  
[72] JUNG, WANG MO, KR  
[72] JO, CHI HO, KR  
[72] YOO, TAE GU, KR  
[72] HWANG, JIN TAE, KR  
[72] HEO, JONG WOOK, KR  
[72] CHO, HYEON JIN, KR  
[71] LG ENERGY SOLUTION, LTD., KR  
[85] 2023-11-08  
[86] 2022-09-19 (PCT/KR2022/013992)  
[87] (WO2023/054959)  
[30] KR (10-2021-0130713) 2021-10-01

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[21] **3,219,607**  
[13] A1

[51] **Int.Cl. H01M 10/0585 (2010.01) H01M 50/446 (2021.01) H01M 50/449 (2021.01) H01M 50/46 (2021.01) H01M 10/04 (2006.01)**

[25] EN  
[54] **ELECTRODE ASSEMBLY AND SECONDARY BATTERY INCLUDING SAME**  
[54] **ENSEMBLE ELECTRODE ET BATTERIE SECONDAIRE LE COMPRENANT**  
[72] BAE, DONG HUN, KR  
[72] KIM, JI EUN, KR  
[72] SHIN, HWAN HO, KR  
[71] LG ENERGY SOLUTION, LTD., KR  
[85] 2023-11-08  
[86] 2022-10-28 (PCT/KR2022/016730)  
[87] (WO2023/075514)  
[30] KR (10-2021-0145991) 2021-10-28

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[21] **3,219,608**  
[13] A1

[51] **Int.Cl. C12Q 1/6886 (2018.01) G16B 20/20 (2019.01)**

[25] EN  
[54] **DETECTION OF HUMAN LEUKOCYTE ANTIGEN LOSS OF HETEROZYGOSITY**  
[54] **DETECTION DE PERTE D'HETEROZYGOTIE DE L'ANTIGENE LEUCOCYTAIRE HUMAIN**  
[72] LOZAC'HMEUR, ARIANE, US  
[72] PERERA, JASON, US  
[71] TEMPUS LABS, INC., US  
[85] 2023-11-08  
[86] 2021-07-16 (PCT/US2021/042039)  
[87] (WO2023/277932)  
[30] US (17/304,940) 2021-06-28

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[21] **3,219,609**  
[13] A1

[51] **Int.Cl. C07K 16/28 (2006.01)**

[25] EN  
[54] **MULTISPECIFIC FGF21 RECEPTOR AGONISTS AND THEIR USES**  
[54] **AGONISTES MULTISPECIFIQUES DU RECEPTEUR FGF21 ET LEURS UTILISATIONS**  
[72] SHEN, YANG, US  
[72] LEE, ANN-HWEE, US  
[72] LIN, CHIA-YANG, US  
[72] AVVARU, NAGA SUHASINI, US  
[72] DAVIS, SAMUEL, US  
[71] REGENERON PHARMACEUTICALS, INC., US  
[85] 2023-11-02  
[86] 2022-05-03 (PCT/US2022/027413)  
[87] (WO2022/235628)  
[30] US (63/183,976) 2021-05-04  
[30] US (63/333,293) 2022-04-21

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[21] **3,219,610**  
[13] A1

[51] **Int.Cl. C25B 1/04 (2021.01) C25B 9/01 (2021.01) C25B 9/23 (2021.01) C25B 9/75 (2021.01) C25B 9/77 (2021.01) C25B 1/26 (2006.01)**

[25] EN

[54] **ELECTROLYZER WITH MULTI-CELL ELEMENTS**

[54] **ELECTROLYSEUR AYANT DES ELEMENTS A CELLULES MULTIPLES**

[72] KLINK, STEFAN, DE

[72] TOROS, PETER, DE

[72] BRINKMANN, JONAS, DE

[72] AUSTENFELD, SEBASTIAN, DE

[72] SCANNELL, ROBERT, DE

[71] THYSSENKRUPP NUCERA AG & CO. KGAA, DE

[85] 2023-11-20

[86] 2022-06-30 (PCT/EP2022/068109)

[87] (WO2023/280678)

[30] EP (21184621.7) 2021-07-08

[21] **3,219,611**  
[13] A1

[51] **Int.Cl. A01H 1/00 (2006.01) A01H 6/46 (2018.01) A01H 5/12 (2018.01) C12N 15/82 (2006.01)**

[25] EN

[54] **METHODS FOR PREPARING A LIBRARY OF PLANT DISEASE RESISTANCE GENES FOR FUNCTIONAL TESTING FOR DISEASE RESISTANCE**

[54] **PROCEDES DE PREPARATION D'UNE BANQUE DE GENES DE RESISTANCE AUX MALADIES DE PLANTES POUR UN TEST FONCTIONNEL DE RESISTANCE AUX MALADIES**

[72] MOSCOU, MATTHEW JAMES, GB

[72] VAN ESSE, HENDRIKUS PIETER, GB

[71] TWO BLADES FOUNDATION, US

[85] 2023-11-08

[86] 2022-05-11 (PCT/US2022/028686)

[87] (WO2022/240931)

[30] US (63/186,986) 2021-05-11

[21] **3,219,612**  
[13] A1

[51] **Int.Cl. G06N 10/40 (2022.01)**

[25] EN

[54] **OPTICAL ADDRESSING METHODS AND APPARATUS**

[54] **PROCEDES ET APPAREIL D'ADDRESSAGE OPTIQUE**

[72] BYLINSKII, ALEXEI, US

[72] KIM, DONGGYU, US

[72] WANG, SHENGTAO, US

[72] OMRAN, AHMED, US

[72] GEMELKE, NATHAN, US

[72] ENGLUND, DIRK, US

[72] AMATO-GRILL, JESSE, US

[72] LUKIN, ALEX, US

[72] WAN, NOEL, US

[72] HU, MING-GUANG, US

[71] QUERA COMPUTING INCORPORATED, US

[85] 2023-11-08

[86] 2022-05-17 (PCT/US2022/029554)

[87] (WO2022/245769)

[30] US (63/189,825) 2021-05-18

[21] **3,219,613**  
[13] A1

[51] **Int.Cl. A61F 2/12 (2006.01) A61F 2/00 (2006.01) A61L 27/14 (2006.01)**

[25] EN

[54] **NIPPLE RECONSTRUCTION IMPLANT**

[54] **IMPLANT DE RECONSTRUCTION DE MAMELON**

[72] LIMEM, SKANDER, US

[72] SARIIBRAHIMOGLU, KEMAL, US

[72] SCOTT, JEFFREY ROBERT, US

[72] WILLIAMS, SIMON F., US

[72] BUTLER, TIMOTHY JOHN, US

[72] HOHL LOPEZ, GERMAN OSWALDO, US

[71] TEPHA, INC., US

[85] 2023-11-08

[86] 2022-05-09 (PCT/US2022/028284)

[87] (WO2022/240725)

[30] US (63/187,010) 2021-05-11

[21] **3,219,614**  
[13] A1

[51] **Int.Cl. A61B 1/00 (2006.01) A61B 1/015 (2006.01) A61B 1/018 (2006.01) A61B 1/06 (2006.01) A61B 1/07 (2006.01) A61B 17/34 (2006.01)**

[25] EN

[54] **ENDOSCOPIC DEVICES, ACCESS SHEATHS, AND ASSOCIATED METHODS**

[54] **DISPOSITIFS ENDOSCOPIQUES, GAINES D'ACCES ET PROCEDES ASSOCIES**

[72] CHU, MICHAEL S. H., US

[72] LENT, ERIC NOBEL, US

[72] RAUNIYAR, NIRAJ PRASAD, US

[72] SUBASIC, JOHN, US

[72] STOKLEY, ELIZABETH A., US

[72] SUBRAMANIAM, ANANT VAIDYANATHAN, US

[72] STANHOPE, WILLIAM, US

[72] DEGRAAF, KIMBERLY, US

[72] JOSHI, SHARMAD S., US

[72] NODIFF, ADAM PERRY, US

[72] XUAN, RONGWEI JASON, US

[72] JACOBS, LANE, US

[71] BOSTON SCIENTIFIC SCIMED, INC., US

[85] 2023-11-08

[86] 2022-05-18 (PCT/US2022/029863)

[87] (WO2022/245965)

[30] US (63/190,546) 2021-05-19

[21] **3,219,615**  
[13] A1

[51] **Int.Cl. C12Q 1/6886 (2018.01)**

[25] EN

[54] **MOLECULAR SIGNATURE FOR ASSESSING THE RESPONSIVENESS OF CANCER TO MITOCHONDRIA-TARGETED ANTIOXIDANTS**

[54] **SIGNATURE MOLECULAIRE POUR EVALUER LA REACTIVITE D'UN CANCER A DES ANTIOXYDANTS CIBLANT LES MITOCHONDRIES**

[72] SONVEAUX, PIERRE, BE

[72] DE MIRANDA CAPELOA, TANIA, BE

[71] UNIVERSITE CATHOLIQUE DE LOUVAIN, BE

[85] 2023-11-20

[86] 2022-05-20 (PCT/EP2022/063789)

[87] (WO2022/243541)

[30] EP (21175397.5) 2021-05-21

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[21] **3,219,616**  
[13] A1

[51] **Int.Cl. A61M 1/00 (2006.01) A61M 3/02 (2006.01)**  
[25] EN  
[54] **FLUID MANAGEMENT SYSTEM**  
[54] **SYSTEME DE GESTION DE FLUIDE**  
[72] MEGANCK, JEFFREY A., US  
[72] FANNING, LEAH, IE  
[72] O'DONNELL, JOHN, IE  
[72] VELAZQUEZ, TROY, US  
[72] FITZGERALD, DAMIEN, IE  
[72] MAHER, LINDA, IE  
[72] DE BARBA, DANIELA, IE  
[72] PEREIRA, PETER J., US  
[72] RAUNIYAR, NIRAJ PRASAD, US  
[71] BOSTON SCIENTIFIC SCIMED, INC., US  
[85] 2023-11-08  
[86] 2022-05-18 (PCT/US2022/029876)  
[87] (WO2022/245976)  
[30] US (63/190,570) 2021-05-19

[21] **3,219,617**  
[13] A1

[51] **Int.Cl. H04N 1/44 (2006.01)**  
[25] EN  
[54] **SELF-VERIFYING HIDDEN DIGITAL MEDIA WITHIN OTHER DIGITAL MEDIA**  
[54] **AUTOVERIFICATION DE SUPPORTS NUMERIQUES CACHES DANS D'AUTRES MILIEUX NUMERIQUES**  
[72] QUINN, CARY MICHAEL, US  
[71] QUINN, CARY MICHAEL, US  
[85] 2023-11-08  
[86] 2022-05-10 (PCT/US2022/028557)  
[87] (WO2022/245595)  
[30] US (63/189,770) 2021-05-18

[21] **3,219,618**  
[13] A1

[51] **Int.Cl. A23K 10/16 (2016.01) A23K 20/163 (2016.01) A23K 50/40 (2016.01) A23K 50/42 (2016.01)**  
[25] EN  
[54] **PET FOOD COMPOSITION**  
[54] **COMPOSITION ALIMENTAIRE POUR ANIMAUX DE COMPAGNIE**  
[72] FRANTZ, NOLAN, US  
[72] PANASEVICH, MATTHEW, US  
[71] BLUE BUFFALO ENTERPRISES, INC., US  
[85] 2023-11-08  
[86] 2022-05-19 (PCT/US2022/029952)  
[87] (WO2022/246015)  
[30] US (63/191,008) 2021-05-20

[21] **3,219,619**  
[13] A1

[51] **Int.Cl. E21B 44/02 (2006.01) E21B 7/02 (2006.01) G01V 3/18 (2006.01)**  
[25] EN  
[54] **OPERATIONAL EMISSIONS FRAMEWORK**  
[54] **STRUCTURE D'EMISSIONS OPERATIONNELLES**  
[72] ALLEN, MARCOS, BR  
[72] BOLCHOVER, PAUL, CN  
[72] HERMANSEN, KEVIN, NO  
[72] JOHNSON, ASHLEY, GB  
[72] MEDINA, DIEGO, CN  
[72] NIFANTOV, ALEKSANDR, AE  
[72] QI, CHAOBO, CN  
[71] SCHLUMBERGER CANADA LIMITED, CA  
[85] 2023-11-08  
[86] 2022-05-19 (PCT/US2022/030065)  
[87] (WO2022/246082)  
[30] US (63/201,931) 2021-05-19  
[30] US (63/203,000) 2021-07-02  
[30] US (63/280,912) 2021-11-18

[21] **3,219,620**  
[13] A1

[51] **Int.Cl. C12N 15/113 (2010.01) A61K 31/7088 (2006.01)**  
[25] EN  
[54] **TREATMENT OF PSORIASIS WITH INTERFERON INDUCED HELICASE C DOMAIN 1 (IFIH1) INHIBITORS**  
[54] **TRAITEMENT DU PSORIASIS AU MOYEN D'INHIBITEURS D'IFIH1 (POUR "INTERFERON INDUCED HELICASE C DOMAIN 1")**  
[72] HOROWITZ, JULIE E., US  
[72] FERREIRA, MANUEL ALLEN REVEZ, US  
[72] SIMINOVITCH, KATHERINE, US  
[72] BARAS, ARIS, US  
[72] KHRIMIAN, LORI, US  
[72] KARALIS, KATIA, US  
[71] REGENERON PHARMACEUTICALS, INC., US  
[85] 2023-11-08  
[86] 2022-06-09 (PCT/US2022/032859)  
[87] (WO2022/261341)  
[30] US (63/209,075) 2021-06-10

[21] **3,219,621**  
[13] A1

[51] **Int.Cl. A61B 17/34 (2006.01) A61M 25/04 (2006.01) A61B 17/11 (2006.01) A61B 17/22 (2006.01)**  
[25] EN  
[54] **SECURING A GUIDEWIRE DELIVERY CATHETER IN THE CORONARY SINUS USING A MECHANICALLY RELEASING ARM**  
[54] **FIXATION D'UN CATHETER DE POSE DE FIL-GUIDE DANS LE SINUS CORONAIRE A L'AIDE D'UN BRAS A LIBERATION MECANIQUE**  
[72] HALL, BETHANY JO, US  
[72] RICKERSON, COOPER RYAN, US  
[72] HADDAD, JASON JAMES RAID, US  
[72] COUTTEAU, STEVEN CHARLES, US  
[71] EDWARDS LIFESCIENCES CORPORATION, US  
[85] 2023-11-08  
[86] 2022-05-20 (PCT/US2022/030195)  
[87] (WO2022/246158)  
[30] US (63/191,419) 2021-05-21

[21] **3,219,622**  
[13] A1

[51] **Int.Cl. A61K 8/36 (2006.01) A61K 8/73 (2006.01) A61Q 9/02 (2006.01)**  
[25] EN  
[54] **SHAVING AID COMPOSITION INCLUDING A NATURAL WEAR RESISTANCE AGENT**  
[54] **COMPOSITION D'AIDE AU RASAGE COMPRENANT UN AGENT DE RESISTANCE A L'USURE NATURELLE**  
[72] NIGGEMANN, MATTHIAS, DE  
[72] LOW, LINDA, US  
[71] EDGEWELL PERSONAL CARE BRANDS, LLC, US  
[85] 2023-11-08  
[86] 2022-06-14 (PCT/US2022/033387)  
[87] (WO2022/266067)  
[30] US (63/210,233) 2021-06-14



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[21] **3,219,624**  
[13] A1

[51] **Int.Cl. G06T 7/50 (2017.01) G08B 13/00 (2006.01) H04N 7/18 (2006.01)**  
[25] EN  
[54] **ADJUSTING AREAS OF INTEREST FOR MOTION DETECTION IN CAMERA SCENES**  
[54] **REGLAGE DE ZONES D'INTERET POUR LA DETECTION DE MOUVEMENT DANS DES SCENES DE CAMERA**  
[72] RAMANATHAN, NARAYANAN, US  
[72] QIAN, GANG, US  
[72] CARMENA, EDUARDO ROMERA, US  
[72] MADDEN, DONALD GERARD, US  
[72] BEACH, ALLISON, US  
[71] OBJECTVIDEO LABS, LLC, US  
[85] 2023-11-08  
[86] 2022-05-09 (PCT/US2022/072195)  
[87] (WO2022/241392)  
[30] US (63/187,055) 2021-05-11

[21] **3,219,625**  
[13] A1

[51] **Int.Cl. A23L 7/109 (2016.01) A21D 13/40 (2017.01) A21C 3/04 (2006.01) A21C 11/20 (2006.01)**  
[25] EN  
[54] **PROCESS FOR THE PRODUCTION OF PASTA BY MEANS OF EXTRUSION THROUGH A BRONZE DIE PLATE INSERT WITH GROOVES**  
[54] **PROCEDE POUR LA PRODUCTION DE PATES AU MOYEN D'UNE EXTRUSION A TRAVERS UN INSERT DE PLAQUE DE FILIERE EN BRONZE AYANT DES RAINURES**  
[72] BARBA, FRANCESCO, IT  
[72] PIZZABIOCCA, FLAVIA, IT  
[72] PANTO', FRANCESCO, IT  
[72] BARDIANI, ITALO, IT  
[71] BARILLA G. E R. FRATELLI S.P.A., IT  
[85] 2023-11-20  
[86] 2022-07-13 (PCT/EP2022/069638)  
[87] (WO2023/285551)  
[30] IT (102021000018494) 2021-07-13

[21] **3,219,626**  
[13] A1

[51] **Int.Cl. B22D 11/06 (2006.01)**  
[25] EN  
[54] **NOSETIP DESIGN FOR HIGH-PERFORMANCE CONTINUOUS CASTING**  
[54] **CONCEPTION D'EMBOUPT POUR COULEE CONTINUE A HAUTE PERFORMANCE**  
[72] WAGSTAFF, SAMUEL ROBERT, US  
[72] BARKER, SIMON WILLIAM, US  
[71] NOVELIS INC., US  
[85] 2023-11-08  
[86] 2022-06-01 (PCT/US2022/072689)  
[87] (WO2022/256805)  
[30] US (63/195,731) 2021-06-02

[21] **3,219,627**  
[13] A1

[51] **Int.Cl. H04L 65/65 (2022.01)**  
[25] EN  
[54] **PEER-TO-PEER CONFERENCING SYSTEM AND METHOD**  
[54] **PROCEDE ET SYSTEME DE CONFERENCE POSTE A POSTE**  
[72] LAMANNA, VINCENT, CA  
[72] AIT-OUYAHIA, FARID, CA  
[72] CAMPEAU, PIERRE, CA  
[71] TECHNOLOGIES CREWDLE INC., CA  
[85] 2023-11-20  
[86] 2022-05-12 (PCT/CA2022/050756)  
[87] (WO2022/241541)  
[30] US (63/191,661) 2021-05-21

[21] **3,219,628**  
[13] A1

[51] **Int.Cl. A61K 31/70 (2006.01) C12N 15/10 (2006.01) C12N 15/11 (2006.01) C12N 15/90 (2006.01) A61K 38/46 (2006.01)**  
[25] EN  
[54] **COMPOSITIONS AND METHODS FOR THE SELF-INACTIVATION OF BASE EDITORS**  
[54] **COMPOSITIONS ET PROCEDES POUR L'AUTO-INACTIVATION D'EDITEURS DE BASE**  
[72] BRYSON, DAVID, US  
[72] SULLIVAN, JACK, US  
[71] BEAM THERAPEUTICS INC., US  
[85] 2023-11-08  
[86] 2022-05-27 (PCT/US2022/031419)  
[87] (WO2022/251687)  
[30] US (63/194,431) 2021-05-28

[21] **3,219,629**  
[13] A1

[51] **Int.Cl. A61K 39/395 (2006.01) C07K 16/28 (2006.01)**  
[25] EN  
[54] **ANTI-CD37 ANTIBODY-MAYTANSINE CONJUGATES AND METHODS OF USE THEREOF**  
[54] **CONJUGUES ANTICORPS ANTI-CD37-MAYTANSINE ET METHODES D'UTILISATION DE CEUX-CI**  
[72] KIM, YUN CHEOL, US  
[72] DRAKE, PENELOPE M., US  
[71] R.P. SCHERER TECHNOLOGIES, LLC, US  
[85] 2023-10-31  
[86] 2022-05-02 (PCT/US2022/027338)  
[87] (WO2022/235589)  
[30] US (63/184,364) 2021-05-05

[21] **3,219,630**  
[13] A1

[51] **Int.Cl. A47J 37/06 (2006.01) F24C 15/16 (2006.01)**  
[25] EN  
[54] **A PADDLE-OPERATED PANINI PRESS WITHIN AN OVEN CAVITY**  
[54] **PRESSE A PANINI ACTIONNEE PAR PALETTE A L'INTERIEUR D'UNE CAVITE DE FOUR**  
[72] UNDERWOOD, MATTHEW DAVID, GB  
[72] SAJJAD, ADAM, GB  
[71] WELBILT UK LIMITED, GB  
[85] 2023-11-09  
[86] 2022-05-10 (PCT/IB2022/000268)  
[87] (WO2022/238761)  
[30] US (63/187,053) 2021-05-11

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[21] **3,219,632**  
[13] A1

[51] **Int.Cl. A61B 18/22 (2006.01) A61B 18/26 (2006.01)**  
[25] EN  
[54] **CLOSE-PACKED SMALL CORE OPTICAL FIBER BUNDLES**  
[54] **FAISCEAUX COMPACTS DE FIBRES OPTIQUES A PETITE AME**  
[72] MANNION, PAUL THOMAS, US  
[72] TOURCHAK, MICHAL, US  
[72] KURODA, MELODY M. H., US  
[71] C.R. BARD, INC., US  
[85] 2023-11-08  
[86] 2022-05-31 (PCT/US2022/031673)  
[87] (WO2022/256356)  
[30] US (63/195,329) 2021-06-01

[21] **3,219,633**  
[13] A1

[51] **Int.Cl. B01D 53/047 (2006.01) B01D 53/96 (2006.01)**  
[25] EN  
[54] **ADSORPTIVE GAS SEPARATION PROCESS AND SYSTEM USING THIRD COMPONENT ADSORPTION TO DRIVE DESORPTION OF PURIFIED FIRST COMPONENT IN RAPID CYCLING GAS SEPARATION DEVICES**  
[54] **PROCEDE ET SYSTEME DE SEPARATION DE GAZ PAR ADSORPTION FAISANT INTERVENIR UNE ADSORPTION DE TROISIEME CONSTITUANT POUR ENTRAINER LA DESORPTION D'UN PREMIER CONSTITUANT PURIFIE DAN S DES DISPOSITIFS DE SEPARATION DE GAZ A CYCLE RAPIDE**  
[72] AHMADI, JAHAN, CA  
[72] CIZERON, JOEL, CA  
[72] FREEMAN, ANNE, CA  
[72] GHAFARI-NIK, OMID, CA  
[72] HOVINGTON, PIERRE, CA  
[72] LUI, ANDREW, CA  
[72] REZAEI, SABEREH, CA  
[72] TULPAR, ONDER, CA  
[72] WHEELER, NIGEL, CA  
[72] ZHU, CHUJIE, CA  
[71] SVANTE INC., CA  
[85] 2023-11-09  
[86] 2022-05-11 (PCT/IB2022/054398)  
[87] (WO2022/238934)  
[30] US (63/187,174) 2021-05-11

[21] **3,219,634**  
[13] A1

[51] **Int.Cl. H04W 48/00 (2009.01) H04W 72/00 (2023.01)**  
[25] EN  
[54] **DEVICE AND METHOD FOR NETWORK SLICE ADMISSION CONTROL**  
[54] **DISPOSITIF ET PROCEDE DE COMMANDE D'ADMISSION DE TRANCHE DE RESEAU**  
[72] POE, WINT YI, DE  
[72] TRIVISONNO, RICCARDO, DE  
[72] ZHU, FENQIN, CN  
[71] HUAWEI TECHNOLOGIES CO., LTD., CN  
[85] 2023-11-09  
[86] 2021-04-01 (PCT/CN2021/085133)  
[87] (WO2022/205386)

[21] **3,219,635**  
[13] A1

[51] **Int.Cl. E21B 43/26 (2006.01) E21B 17/042 (2006.01) E21B 43/12 (2006.01)**  
[25] EN  
[54] **QUICK CONDUIT CONNECTION SYSTEM**  
[54] **SYSTEME DE RACCORD RAPIDE DE CONDUITS**  
[72] SHIRANI, ALIREZA, US  
[72] SIFFORD, CURTIS, US  
[72] GONZALEZ, GUSTAVO, US  
[72] VILLARROEL, ENRIQUE, US  
[72] FRANK, JOSHUA, US  
[72] MILLER, ERIC, US  
[72] MERCER, TED, US  
[72] KHOKHAR, ALEEM, US  
[71] SCHLUMBERGER CANADA LIMITED, CA  
[85] 2023-11-08  
[86] 2022-06-01 (PCT/US2022/031784)  
[87] (WO2022/256415)  
[30] US (63/195,479) 2021-06-01

[21] **3,219,637**  
[13] A1

[51] **Int.Cl. B64D 27/12 (2006.01) B64D 27/18 (2006.01)**  
[25] EN  
[54] **STRUCTURE FOR LINKING AND SUPPORTING A TURBINE ENGINE ON AN AIRCRAFT PYLON**  
[54] **STRUCTURE DE LIAISON ET DE SUPPORT D'UNE TURBOMACHINE A UN PYLONE D'AERONEF**  
[72] GLEMAREC, GUILLAUME, FR  
[72] BEUTIN, BRUNO ALBERT, FR  
[72] CAPASSO, VALERIO, FR  
[72] VIGNES, JEAN-BAPTISTE MANUEL NICOLAS, FR  
[71] SAFRAN AIRCRAFT ENGINES, FR  
[85] 2023-11-20  
[86] 2022-05-17 (PCT/FR2022/050931)  
[87] (WO2022/248791)  
[30] FR (FR2105534) 2021-05-27

[21] **3,219,638**  
[13] A1

[51] **Int.Cl. C08J 9/14 (2006.01)**  
[25] EN  
[54] **COMPOSITIONS COMPRISING E-HFO-1336MZZ AND METHYL FORMATE AND THEIR USE AS EXPANSION AGENTS FOR THERMOPLASTIC FOAM**  
[54] **COMPOSITIONS COMPRENANT DE L'E-HFO-1336MZZ ET DU FORMIATE DE METHYLE ET LEUR UTILISATION EN TANT QU'AGENTS D'EXPANSION POUR MOUSSE THERMOPLASTIQUE**  
[72] KONTOMARIS, KONSTANTINOS, US  
[71] THE CHEMOURS COMPANY FC, LLC, US  
[85] 2023-11-08  
[86] 2022-06-09 (PCT/US2022/032753)  
[87] (WO2022/261267)  
[30] US (63/208,712) 2021-06-09

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[21] <b>3,219,640</b> [13] A1	[21] <b>3,219,642</b> [13] A1	[21] <b>3,219,645</b> [13] A1
[25] EN [54] <b>CATHETER EXTENSION SET HAVING A PATENCY OR MONITORING INSTRUMENT</b> [54] <b>ENSEMBLE D'EXTENSION DE CATHETER DOTE D'UN INSTRUMENT DE SURVEILLANCE OU DE PERMEABILITE</b> [72] BURKHOLZ, JONATHAN KARL, US [72] SCHERICH, MEGAN, US [71] BECTON, DICKINSON AND COMPANY, US [85] 2023-11-20 [86] 2022-05-24 (PCT/US2022/030633) [87] (WO2022/251148) [30] US (63/193,489) 2021-05-26	[51] <b>Int.Cl. C07K 16/28 (2006.01) A61K 39/00 (2006.01) A61P 35/00 (2006.01) C07K 16/30 (2006.01) C12N 5/16 (2006.01) G01N 33/68 (2006.01)</b> [25] EN [54] <b>NOVEL ANTI-CD276 ANTIBODIES AND THE USES THEREOF</b> [54] <b>NOUVEAUX ANTICORPS ANTI-CD276 ET LEURS UTILISATIONS</b> [72] YUWEN, HUI, CN [72] HOU, BING, CN [72] LI, TENTENG, CN [72] CHEN, PENG, CN [72] DENG, MIN, CN [72] SHAN, BO, CN [72] MEI, JAY, CN [71] ANTENGENE BIOLOGICS LIMITED, CN [85] 2023-11-09 [86] 2022-05-11 (PCT/CN2022/092138) [87] (WO2022/237820) [30] CN (PCT/CN2021/093157) 2021-05-11 [30] CN (PCT/CN2022/089645) 2022-04-27	[51] <b>Int.Cl. A61K 47/65 (2017.01) A61K 47/68 (2017.01) A61P 3/04 (2006.01) A61P 3/06 (2006.01) A61P 3/10 (2006.01) C07K 14/475 (2006.01)</b> [25] EN [54] <b>COMPOSITION FOR COMBINATION THERAPY COMPRISING GROWTH DIFFERENTIATION FACTOR-15 VARIANT AND GLUCAGON-LIKE PEPTIDE-1 RECEPTOR AGONIST</b> [54] <b>COMPOSITION POUR POLYTHERAPIE COMPRENANT UN VARIANT DE FACTEUR DE DIFFERENCIATION DE CROISSANCE 15 ET UN AGONISTE DU RECEPTEUR DU PEPTIDE 1 DE TYPE GLUCAGON</b> [72] LIM, SEYOUNG, KR [72] YANG, JI EUN, KR [72] KIM, SUKYUNG, KR [72] SIM, BO RA, KR [72] LEE, YUNJI, KR [72] KIM, DO HOON, KR [72] JU, MI KYEONG, KR [72] CHOI, HYUN HO, KR [72] HONG, HAN NA, KR [72] KIM, JUNHWAN, KR [71] YUHAN CORPORATION, KR [85] 2023-11-20 [86] 2022-05-20 (PCT/KR2022/007242) [87] (WO2022/245179) [30] KR (10-2021-0065563) 2021-05-21
[21] <b>3,219,641</b> [13] A1		[21] <b>3,219,646</b> [13] A1
[51] <b>Int.Cl. C07D 401/14 (2006.01) A61K 31/407 (2006.01) A61K 31/4439 (2006.01) A61K 31/444 (2006.01) A61K 31/501 (2006.01) A61K 31/506 (2006.01) A61K 31/5377 (2006.01) A61K 31/5383 (2006.01) A61P 35/00 (2006.01) A61P 35/02 (2006.01) C07D 401/04 (2006.01) C07D 471/04 (2006.01) C07D 487/04 (2006.01) C07D 491/107 (2006.01) C07D 498/04 (2006.01)</b> [25] EN [54] <b>COMPOUND USED AS BCR-ABL INHIBITOR</b> [54] <b>COMPOSE UTILISE COMME INHIBITEUR DE BCR-ABL</b> [72] ZHANG, YINSHENG, CN [72] LIU, XIN, CN [72] QIN, HUI, CN [72] YE, JIAWEI, CN [72] WANG, JINAN, CN [72] WU, SONGSONG, CN [71] CHIA TAI TIANQING PHARMACEUTICAL GROUP CO., LTD, CN [85] 2023-11-20 [86] 2022-05-27 (PCT/CN2022/095436) [87] (WO2022/247919) [30] CN (202110592542.2) 2021-05-28 [30] CN (202111094508.9) 2021-09-17 [30] CN (202111661984.4) 2021-12-31		[51] <b>Int.Cl. F25J 1/02 (2006.01)</b> [25] EN [54] <b>HYDROGEN LIQUEFACTION SYSTEM AND METHOD</b> [54] <b>SYSTEME ET PROCEDE DE LIQUEFACTION D'HYDROGENE</b> [72] HEYRMAN, BRENT A., US [72] GUSHANAS, TIMOTHY P., US [72] VIPPERLA, RAVIKUMAR, US [72] WATT, MATTHEW R., US [72] DUCOTE, DOUGLAS A. JR., US [71] CHART ENERGY & CHEMICALS, INC., US [85] 2023-11-20 [86] 2022-06-08 (PCT/US2022/032695) [87] (WO2022/261224) [30] US (63/208,245) 2021-06-08

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[21] **3,219,647**  
[13] A1

[51] **Int.Cl. A61K 38/26 (2006.01) A61P 3/00 (2006.01) C07K 14/605 (2006.01)**

[25] EN

[54] **MULTI-AGONIST AND USE THEREOF**

[54] **MULTI-AGONISTE ET SON UTILISATION**

[72] HUANG, LIANG, CN  
[72] CAO, CHUNLAI, CN  
[72] DENG, HUIXING, CN  
[72] ZHOU, CUI, CN  
[72] HE, XIUYI, CN  
[72] LIU, XIAOXIAO, CN  
[72] XIE, XIN, CN

[71] **THE UNITED BIO-TECHNOLOGY (HENGQIN) CO., LTD., CN**

[85] 2023-11-09  
[86] 2022-05-18 (PCT/CN2022/093577)  
[87] (WO2022/247701)  
[30] CN (202110576591.7) 2021-05-26

[21] **3,219,648**  
[13] A1

[25] EN

[54] **VASCULAR ACCESS DEVICE HAVING AN INSTRUMENT CONFIGURED TO INSERT INTO A CATHETER**

[54] **DISPOSITIF D'ACCES VASCULAIRE COMPORTANT UN INSTRUMENT CONCU POUR S'INSERER DANS UN CATHETER**

[72] BLANCHARD, CURTIS H., US  
[72] HARDING, WESTON F., US  
[72] MA, YIPING, US  
[71] **BECTON, DICKINSON AND COMPANY, US**

[85] 2023-11-20  
[86] 2022-05-24 (PCT/US2022/030641)  
[87] (WO2022/251155)  
[30] US (63/193,478) 2021-05-26

[21] **3,219,649**  
[13] A1

[51] **Int.Cl. G01N 30/12 (2006.01) C07D 317/38 (2006.01) G01N 30/88 (2006.01)**

[25] EN

[54] **GAS CHROMATOGRAPHY ANALYTICAL METHOD**

[54] **PROCEDE D'ANALYSE PAR CHROMATOGRAPHIE EN PHASE GAZEUSE**

[72] YOKOYAMA, MASAKO, JP  
[71] **ASAHI KASEI KABUSHIKI KAISHA, JP**

[85] 2023-11-20  
[86] 2022-03-16 (PCT/JP2022/011980)  
[87] (WO2022/259681)  
[30] JP (2021-096700) 2021-06-09

[21] **3,219,652**  
[13] A1

[51] **Int.Cl. C07K 14/21 (2006.01) C07K 14/24 (2006.01)**

[25] EN

[54] **A BROADLY PROTECTIVE PROPHYLACTIC VACCINE AGAINST PSEUDOMONAS AERUGINOSA**

[54] **VACCIN PROPHYLACTIQUE LARGEMENT PROTECTEUR CONTRE PSEUDOMONAS AERUGINOSA**

[72] PICKING, WENDY L., US  
[72] PICKING, WILLIAM D., US  
[72] ERNST, ROBERT K., US  
[71] **UNIVERSITY OF KANSAS, US**  
[71] **UNIVERSITY OF MARYLAND, BALTIMORE, US**

[85] 2023-11-20  
[86] 2022-05-23 (PCT/US2022/030565)  
[87] (WO2022/246327)  
[30] US (63/191,688) 2021-05-21  
[30] US (63/286,268) 2021-12-06

[21] **3,219,653**  
[13] A1

[51] **Int.Cl. A23J 3/22 (2006.01) A23L 31/00 (2016.01) C12N 1/12 (2006.01) C12N 1/14 (2006.01)**

[25] EN

[54] **FOOD OR FOOD SUPPLEMENT AND METHODS OF PRODUCTION THEREOF**

[54] **ALIMENT OU COMPLEMENT ALIMENTAIRE ET SES PROCEDES DE PRODUCTION**

[72] **STEDMAN, MICHAEL PHEROZE, GB**

[71] **KORALO GMBH, DE**

[85] 2023-11-09  
[86] 2022-05-11 (PCT/EP2022/062750)  
[87] (WO2022/238466)  
[30] EP (21173540.2) 2021-05-12

[21] **3,219,655**  
[13] A1

[51] **Int.Cl. C09D 7/61 (2018.01)**

[25] EN

[54] **NON-CR PASSIVATING COMPOSITION AND ARTICLE TREATED BY THE SAME**

[54] **COMPOSITION DE PASSIVATION SANS CR ET ARTICLE TRAITE PAR CELLE-CI**

[72] YANG, JIA YUN, CN  
[72] ZHU, LING LING, CN  
[72] ZOU, HAI XIA, CN  
[72] WAN, SHENG XING, CN  
[71] **CHEMETALL GMBH, DE**

[85] 2023-11-20  
[86] 2022-05-24 (PCT/EP2022/064079)  
[87] (WO2022/248488)  
[30] CN (PCT/CN2021/096348) 2021-05-27

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[21] **3,219,657**  
[13] A1

[51] **Int.Cl. C07D 403/06 (2006.01) A61K 31/454 (2006.01) A61K 31/4545 (2006.01) C07D 403/14 (2006.01)**

[25] EN

[54] **QUINOLINAMINE COMPOUND, PREPARATION METHOD THEREFOR AND APPLICATION THEREOF IN PHARMACEUTICALS**

[54] **COMPOSE QUINOLINAMINE, SON PROCEDE DE PREPARATION ET SON UTILISATION DANS DES PRODUITS PHARMACEUTIQUES**

[72] YANG, FANGLONG, CN  
[72] JIA, MINQIANG, CN  
[72] TANG, HUANYU, CN  
[72] QUE, YONGLEI, CN  
[72] HE, FENG, CN  
[72] TAO, WEIKANG, CN  
[71] JIANGSU HENGRUI PHARMACEUTICALS CO., LTD., CN  
[71] SHANGHAI HENGRUI PHARMACEUTICAL CO., LTD., CN  
[85] 2023-11-20  
[86] 2022-05-27 (PCT/CN2022/095441)  
[87] (WO2022/247920)  
[30] CN (202110606803.1) 2021-05-27  
[30] CN (202110976020.2) 2021-08-24

[21] **3,219,659**  
[13] A1

[51] **Int.Cl. A61K 39/395 (2006.01) A61P 25/28 (2006.01) C07K 16/18 (2006.01)**

[25] EN

[54] **ANTIBODIES FOR TREATING ALPHA-SYNUCLEINOPATHIES**

[54] **ANTICORPS POUR LE TRAITEMENT D'ALPHA-SYNUCLEINOPATHIES**

[72] PARK, KYUNGJIN, KR  
[72] SONG, DAEHAE, KR  
[72] JUNG, JINWON, KR  
[72] SUNG, BYUNGJE, KR  
[72] YUN, HYESU, KR  
[72] SHIN, JUNG-WON, KR  
[72] AN, SUNGWON, KR  
[72] KIM, JUHEE, KR  
[72] LEE, BORA, KR  
[72] AHN, JINHYUNG, KR  
[72] KIM, DONGIN, KR  
[72] KIM, DONGHWAN, KR  
[72] SON, YONG-GYU, KR  
[72] PAK, YOUNGDON, KR  
[71] ABL BIO INCORPORATED, KR  
[85] 2023-11-09  
[86] 2022-05-12 (PCT/IB2022/054445)  
[87] (WO2022/238961)  
[30] KR (10-2021-0061407) 2021-05-12

[21] **3,219,661**  
[13] A1

[51] **Int.Cl. G06F 16/14 (2019.01) G06F 21/62 (2013.01)**

[25] EN

[54] **IMPROVEMENTS IN OR RELATING TO DATA TRANSMISSION**

[54] **AMELIORATIONS APORTEES OU ASSOCIEES A UNE TRANSMISSION DE DONNEES**

[72] RAMSAY, BRUCE, GB  
[72] STEVENSON, IAN, GB  
[71] CYACOMB LIMITED, GB  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/GB2022/051289)  
[87] (WO2022/243707)  
[30] GB (2107332.5) 2021-05-21

[21] **3,219,662**  
[13] A1

[51] **Int.Cl. H04B 7/0417 (2017.01) H04W 52/42 (2009.01)**

[25] EN

[54] **VARYING A RATE OF ELICITING MIMO TRANSMISSIONS FROM WIRELESS COMMUNICATION DEVICES**

[54] **VARIATION D'UN DEBIT DE DECLenchement DE TRANSMISSIONS MIMO A PARTIR DE DISPOSITIFS DE COMMUNICATION SANS FIL**

[72] BEG, CHRISTOPHER, CA  
[71] COGNITIVE SYSTEMS CORP., CA  
[85] 2023-11-20  
[86] 2022-05-12 (PCT/CA2022/050749)  
[87] (WO2022/246539)  
[30] US (17/328,479) 2021-05-24

[21] **3,219,664**  
[13] A1

[51] **Int.Cl. G06Q 30/08 (2012.01) G06Q 30/06 (2023.01)**

[25] EN

[54] **METHOD AND SYSTEM FOR A BID MANAGEMENT PLATFORM FOR FACILITATING PROPERTY TRANSACTIONS**

[54] **PROCEDE ET SYSTEME DE PLATEFORME DE GESTION D'OFFRES POUR FACILITER DES TRANSACTIONS DE BIENS**

[72] HOFFMAN, JUDD, US  
[72] CAULFIELD, KEVIN, US  
[72] QUIRK, TIM, US  
[72] FATOVIC, JERKO DANKO, HR  
[71] FINAL OFFER LLC, US  
[85] 2023-11-20  
[86] 2022-05-21 (PCT/US2022/030416)  
[87] (WO2022/246304)  
[30] US (63/191,529) 2021-05-21

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[21] **3,219,666**  
[13] A1

[51] **Int.Cl. C21B 13/00 (2006.01) C21B 13/02 (2006.01) C07C 1/12 (2006.01)**

[25] EN

[54] **A METHOD FOR MANUFACTURING DIRECT REDUCED IRON**

[54] **PROCEDE DE FABRICATION D'EPONGE DE FER**

[72] SALAME, SARAH, FR

[72] CARRIER, ODILE, FR

[72] BARROS LORENZO, JOSE, FR

[72] REYES RODRIGUEZ, JON, ES

[72] ANDRADE, MARCELO, US

[72] BOULANOV, DMITRI, US

[72] LU, DENNIS, US

[72] TSVIK, GEORGE, US

[71] ARCELORMITTAL, LU

[85] 2023-11-09

[86] 2022-05-19 (PCT/IB2022/054664)

[87] (WO2022/248987)

[30] IB (PCT/IB2021/054583) 2021-05-26

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[21] **3,219,667**  
[13] A1

[25] EN

[54] **COMPOSITIONS OF CELLS WITH AN ENHANCED THERAPEUTIC CAPACITY**

[54] **COMPOSITIONS DE CELLULES AYANT UNE CAPACITE THERAPEUTIQUE AMELIOREE**

[72] BRONSHTEIN, TOMER, IL

[72] BEN DAVID, DROR, IL

[72] NOVAK, ATARA, IL

[72] MERETZKI, SHAI, IL

[71] BONUS THERAPEUTICS LTD., IL

[85] 2023-11-20

[86] 2022-05-23 (PCT/IL2022/050536)

[87] (WO2022/249167)

[30] US (63/192,049) 2021-05-23

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[21] **3,219,668**  
[13] A1

[51] **Int.Cl. F42B 5/28 (2006.01) F42B 5/285 (2006.01) F42B 5/36 (2006.01) F42C 19/08 (2006.01)**

[25] EN

[54] **AMMUNITION CASING HAVING A STEP WITHIN A DEEP CANNELURE**

[54] **ENVELOPPE DE MUNITION AYANT UN PAS A L'INTERIEUR D'UNE CANNELURE PROFONDE**

[72] VIGGIANO, ANTHONY, US

[71] SHELL SHOCK TECHNOLOGIES LLC, US

[85] 2023-11-20

[86] 2022-03-01 (PCT/US2022/018233)

[87] (WO2022/250755)

[30] US (63/191,993) 2021-05-22

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[21] **3,219,669**  
[13] A1

[51] **Int.Cl. G06N 10/70 (2022.01)**

[25] EN

[54] **FAULT-TOLERANT QUANTUM COMPUTATION**

[54] **CALCUL QUANTIQUE TOLERANT AUX DEFAILLANCES**

[72] CONG, IRIS, US

[72] LEVINE, HARRY JAY, US

[72] KEESLING CONTRERAS, ALEXANDER, US

[72] LUKIN, MIKHAIL D., US

[72] WANG, SHENGTAO, US

[71] PRESIDENT AND FELLOWS OF HARVARD COLLEGE, US

[71] QUERA COMPUTING INCORPORATED, US

[85] 2023-11-20

[86] 2022-05-27 (PCT/US2022/031297)

[87] (WO2023/287503)

[30] US (63/194,012) 2021-05-27

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[21] **3,219,670**  
[13] A1

[51] **Int.Cl. G06Q 10/04 (2023.01)**

[25] EN

[54] **A COMPUTER-IMPLEMENTED METHOD FOR ESTIMATING A CONSUMPTION OF AN AGRICULTURAL PRODUCT FOR A GEOGRAPHICAL REGION**

[54] **PROCEDE MIS EN ?UVRE PAR ORDINATEUR POUR ESTIMER LA CONSOMMATION D'UN PRODUIT AGRICOLE POUR UNE REGION GEOGRAPHIQUE**

[72] LOEFFEL, CHRISTOPH, DE

[72] HAUSEN, TOBIAS, DE

[72] PRIESE, BENJAMIN, DE

[72] PERI, VENKATA RAMANA, DE

[72] CHRISTEN, THOMAS, DE

[72] MERK, MICHAEL, DE

[71] BASF SE, DE

[85] 2023-11-20

[86] 2022-05-20 (PCT/EP2022/063690)

[87] (WO2022/243500)

[30] EP (21175285.2) 2021-05-21

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[21] **3,219,671**  
[13] A1

[51] **Int.Cl. A61K 31/404 (2006.01) A61P 25/28 (2006.01)**

[25] EN

[54] **QUERCETIN-CONTAINING COMPOSITIONS FOR USE IN TREATING AMYOTROPHIC LATERAL SCLEROSIS**

[54] **COMPOSITIONS CONTENANT DE LA QUERCETINE DESTINEES A ETRE UTILISEES DANS LE TRAITEMENT DE LA SCLEROSE LATERALE AMYOTROPHIQUE**

[72] LINES, THOMAS CHRISTIAN, CH

[71] QUERCIS PHARMA AG, CH

[85] 2023-11-20

[86] 2022-05-19 (PCT/IB2022/054707)

[87] (WO2022/243942)

[30] US (63/190,697) 2021-05-19

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## Demandes PCT entrant en phase nationale

<p style="text-align: center;">[21] <b>3,219,672</b> [13] A1</p> <p>[51] <b>Int.Cl. A61K 8/67 (2006.01) A61K 8/49 (2006.01) A61K 31/203 (2006.01) C07K 14/525 (2006.01) C07K 16/30 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>ANTI-CEA AND ANTI-CD137 MULTISPECIFIC ANTIBODIES AND METHODS OF USE</b></p> <p>[54] <b>ANTICORPS MULTISPECIFIQUES ANTI-CEA ET ANTI-CD137 ET PROCEDES D'UTILISATION</b></p> <p>[72] QU, LIANG, CN</p> <p>[72] ZHANG, TONG, CN</p> <p>[72] LI, ZHUO, CN</p> <p>[72] CHEN, XIN, CN</p> <p>[72] ZHU, LIN, CN</p> <p>[72] WANG, PENGHAO, CN</p> <p>[72] ZHOU, XIAOSUI, CN</p> <p>[72] XIE, YUANYUAN, CN</p> <p>[72] LI, JIE, CN</p> <p>[72] SUN, JIAN, CN</p> <p>[72] SONG, JING, CN</p> <p>[72] LI, XUEHUI, CN</p> <p>[71] BEIGENE SWITZERLAND GMBH, CH</p> <p>[85] 2023-11-20</p> <p>[86] 2022-05-18 (PCT/CN2022/093565)</p> <p>[87] (WO2022/242680)</p> <p>[30] CN (PCT/CN2021/095113) 2021-05-21</p> <p>[30] CN (PCT/CN2022/085625) 2022-04-07</p> <p>[30] CN (PCT/CN2022/088172) 2022-04-21</p>	<p style="text-align: center;">[21] <b>3,219,674</b> [13] A1</p> <p>[51] <b>Int.Cl. D21B 1/02 (2006.01) A43B 1/06 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>WOOD MATERIALS HAVING ANISOTROPIC ELASTICITY, AND METHODS FOR FABRICATION AND USE THEREOF</b></p> <p>[54] <b>MATERIAUX DE BOIS PRESENTANT UNE ELASTICITE ANISOTROPE, ET LEURS PROCEDES DE FABRICATION ET D'UTILISATION</b></p> <p>[72] HU, LIANGBING, US</p> <p>[72] ZHAO, XINPENG, US</p> <p>[72] LIU, YU, US</p> <p>[71] UNIVERSITY OF MARYLAND, COLLEGE PARK, US</p> <p>[85] 2023-11-20</p> <p>[86] 2022-05-27 (PCT/US2022/031289)</p> <p>[87] (WO2022/251595)</p> <p>[30] US (63/194,925) 2021-05-28</p>	<p style="text-align: center;">[21] <b>3,219,676</b> [13] A1</p> <p>[25] EN</p> <p>[54] <b>ADHESIVE FOR BONDING DISSIMILAR MATERIALS IN MEDICAL DEVICE</b></p> <p>[54] <b>ADHESIF POUR COLLER DES MATERIAUX DISSEMBLABLES DANS UN DISPOSITIF MEDICAL</b></p> <p>[72] MENG, FANQING, US</p> <p>[72] SEVINC, ZEHRA, US</p> <p>[72] WEIMER, MARC WILLIAM, US</p> <p>[72] SEMLER, JAMES JOSEPH, US</p> <p>[71] CAREFUSION 303, INC., US</p> <p>[85] 2023-11-20</p> <p>[86] 2022-05-09 (PCT/US2022/028381)</p> <p>[87] (WO2022/245573)</p> <p>[30] US (63/191,871) 2021-05-21</p>
<p style="text-align: center;">[21] <b>3,219,673</b> [13] A1</p> <p>[51] <b>Int.Cl. C08K 3/14 (2006.01) H01M 10/0525 (2010.01) H01M 10/658 (2014.01) C08K 7/14 (2006.01) C08K 7/26 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>HIGH TEMPERATURE INSULATIVE COMPOSITES AND ARTICLES THEREOF</b></p> <p>[54] <b>COMPOSITES ISOLANTS A HAUTE TEMPERATURE ET ARTICLES ASSOCIES</b></p> <p>[72] FILLERY, SCOTT, US</p> <p>[72] HENDERSON, JOSEPH, US</p> <p>[72] KNOFF, JEFFREY, US</p> <p>[72] RUBIN, EDWARD, US</p> <p>[71] W. L. GORE &amp; ASSOCIATES, INC., US</p> <p>[85] 2023-11-20</p> <p>[86] 2022-04-07 (PCT/US2022/071603)</p> <p>[87] (WO2022/261579)</p> <p>[30] US (63/209,868) 2021-06-11</p>	<p style="text-align: center;">[21] <b>3,219,675</b> [13] A1</p> <p>[25] EN</p> <p>[54] <b>ENVIRONMENTALLY FRIENDLY COMPOSITION FOR TREATING MINERAL SUBSTRATES</b></p> <p>[54] <b>COMPOSITION RESPECTUEUSE DE L'ENVIRONNEMENT POUR LE TRAITEMENT DE SUBSTRATS MINERAUX</b></p> <p>[72] MARTENS-KRUCK, SUSANNE CHRISTINE, DE</p> <p>[72] LJESIC, SPOMENKO, DE</p> <p>[72] GUZELSAHIN, MUSTAFA, DE</p> <p>[72] ZEISEL, STEFFEN, DE</p> <p>[71] EVONIK OPERATIONS GMBH, DE</p> <p>[85] 2023-11-20</p> <p>[86] 2022-05-12 (PCT/EP2022/062894)</p> <p>[87] (WO2022/248238)</p> <p>[30] EP (21176149.9) 2021-05-27</p>	<p style="text-align: center;">[21] <b>3,219,677</b> [13] A1</p> <p>[51] <b>Int.Cl. B23D 45/10 (2006.01) B23D 61/04 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>ROTATABLE TOOL-ASSEMBLY FOR PROCESSING WOODEN PANELS AND THE LIKE</b></p> <p>[54] <b>ENSEMBLE D'OUTIL ROTATIF POUR LE TRAITEMENT DE PANNEAUX EN BOIS ET SIMILAIRES</b></p> <p>[72] POZZO, PIERGIORGIO, IT</p> <p>[71] C.M.T. UTENSILI S.P.A., IT</p> <p>[85] 2023-11-20</p> <p>[86] 2021-12-07 (PCT/IB2021/061412)</p> <p>[87] (WO2022/248930)</p> <p>[30] IT (102021000013532) 2021-05-25</p>

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[21] **3,219,678**  
[13] A1

[51] **Int.Cl. C08G 59/17 (2006.01) C08G 59/22 (2006.01) C08G 59/38 (2006.01) C08G 59/50 (2006.01)**

[25] EN

[54] **EPOXIDE-ACRYLATE HYBRID MOLECULES AND THEIR USE FOR CHEMICAL ANCHORING**

[54] **MOLECULES HYBRIDES D'EPOXYDE-ACRYLATE ET LEUR UTILISATION POUR L'ANCRAGE CHIMIQUE**

[72] MARTIN-LASANTA, ANA-MARIA, DE

[72] PESCHKE, URSULA, DE

[72] BORNSCHLEGL, ALEXANDER, DE

[72] NICKERL, GEORG, DE

[72] GNASS, BEATE, DE

[71] HILTI AKTIENGESSELLSCHAFT, LI

[85] 2023-11-20

[86] 2022-07-06 (PCT/EP2022/068671)

[87] (WO2023/285221)

[30] EP (21185984.8) 2021-07-16

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[21] **3,219,679**  
[13] A1

[51] **Int.Cl. E06B 9/15 (2006.01) E06B 9/86 (2006.01)**

[25] EN

[54] **ROLLING SHUTTER LOCKING SYSTEM**

[54] **SYSTEME DE VERROUILLAGE DE VOLET ROULANT**

[72] ZARBECK, CRAIG N., US

[72] AMIL, ORLANDO, US

[72] MILLER, JAMES V., US

[71] QUALITAS MANUFACTURING INCORPORATED, US

[85] 2023-11-20

[86] 2022-06-13 (PCT/US2022/033316)

[87] (WO2022/266023)

[30] US (63/210,461) 2021-06-14

[30] US (63/233,715) 2021-08-16

[30] US (17/839,251) 2022-06-13

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[21] **3,219,681**  
[13] A1

[51] **Int.Cl. A61K 35/74 (2015.01)**

[25] EN

[54] **BACTERIAL CELL WALL BOUND TO A MUCOPOLYSACCHARIDE, USES THEREOF AND PROCESS FOR ITS PRODUCTION**

[54] **PAROI CELLULAIRE BACTERIENNE LIEE A UN MUCOPOLYSACCHARIDE, SES UTILISATIONS ET SON PROCEDE DE PRODUCTION**

[72] DI MARCO, ROBERTO MARIA ANTONIO, IT

[72] LONGO SORMANI, SONIA, IT

[72] VERGALITO, FRANCA, IT

[72] MAGNIFICO, IRENE, IT

[72] PIETRANGELO, LAURA, IT

[72] VENDITTI, NOEMI, IT

[72] CUTULI, MARCO ALFIO, IT

[72] PETRONIO PETRONIO, GIULIO, IT

[71] AILEENS PHARMA S.R.L., IT

[85] 2023-11-20

[86] 2022-05-20 (PCT/EP2022/063824)

[87] (WO2022/243558)

[30] IT (102021000013292) 2021-05-21

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[21] **3,219,682**  
[13] A1

[51] **Int.Cl. B65G 1/137 (2006.01) B65G 47/90 (2006.01) B66F 9/06 (2006.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR PROCESSING OBJECTS INCLUDING PAYLOAD POSITIONABLE MOBILE CARRIERS AND INTERMEDIATE PROCESSING SYSTEMS**

[54] **SYSTEMES ET PROCEDES DE TRAITEMENT D'OBJETS COMPRENANT DES SUPPORTS MOBILES POUVANT ETRE POSITIONNES A CHARGE UTILE ET DES SYSTEMES DE TRAITEMENT INTERMEDIAIRES**

[72] VELAGAPUDI, PRASANNA, US

[71] BERKSHIRE GREY OPERATING COMPANY, INC., US

[85] 2023-09-19

[86] 2022-03-18 (PCT/US2022/020941)

[87] (WO2022/198042)

[30] US (63/163,342) 2021-03-19

[30] US (63/256,395) 2021-10-15

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[21] **3,219,683**  
[13] A1

[51] **Int.Cl. G06Q 40/06 (2012.01)**

[25] EN

[54] **SYSTEM AND METHOD FOR ALLOCATION AND PERIODIC DISTRIBUTION OF RETIREMENT CAPITAL**

[54] **SYSTEME ET PROCEDE D'ALLOCATION ET DE DISTRIBUTION PERIODIQUE DE CAPITAUX DE RETRAITE**

[72] SEIF, SOM, CA

[72] TASEVSKI, VLAD, CA

[72] BALUTA, ALEXANDER WILLIAM, CA

[72] ASTLE, THOMAS BLAIR, CA

[72] HAEFELE, PAUL ANTHONY, CA

[71] PURPOSE INVESTMENTS INC., CA

[71] LONGEVITY FUNDS INTERNATIONAL INC., CA

[85] 2023-11-20

[86] 2021-05-20 (PCT/CA2021/050689)

[87] (WO2022/241536)



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[21] **3,219,685**  
[13] A1

[51] **Int.Cl. A61K 47/65 (2017.01) A61K 47/68 (2017.01) A61P 1/16 (2006.01) C07K 14/475 (2006.01)**

[25] EN

[54] **COMPOSITION FOR PREVENTING OR TREATING NON-ALCOHOLIC FATTY LIVER DISEASE OR NON-ALCOHOLIC STEATOHEPATITIS COMPRISING GROWTH DIFFERENTIATION FACTOR-15 VARIANT**

[54] **COMPOSITION POUR LA PREVENTION OU LE TRAITEMENT D'UNE STEATOSE HEPATIQUE NON ALCOOLIQUE OU D'UNE STEATOHEPATITE NON ALCOOLIQUE COMPRENANT UN VARIANT DE FACTEUR DE DIFFERENCIATION DE CROISSANCE 1**

[72] LIM, SEYOUNG, KR  
[72] YANG, JI EUN, KR  
[72] KIM, DO HOON, KR  
[72] KIM, SUKYUNG, KR  
[72] SIM, BO RA, KR  
[72] LEE, YUNJI, KR  
[72] YANG, NAYEON, KR  
[72] KIM, JUNHWAN, KR  
[71] YUHAN CORPORATION, KR  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/KR2022/007248)  
[87] (WO2022/245183)  
[30] KR (10-2021-0065564) 2021-05-21

[21] **3,219,686**  
[13] A1

[51] **Int.Cl. D01D 5/253 (2006.01)**

[25] EN

[54] **WATER-REPELLENT FIBRE**

[54] **FIBRE HYDROFUGE**

[72] KAMEI, JUN, GB  
[71] AMPHIBIO LTD, GB  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/GB2022/051277)  
[87] (WO2022/243700)  
[30] GB (2107272.3) 2021-05-20

[21] **3,219,687**  
[13] A1

[51] **Int.Cl. A01H 3/04 (2006.01)**

[25] EN

[54] **EFFICIENT BIOMASS CULTIVATION FEATURING LIGHT- AND THERMAL-MANAGEMENT, PROCESSING OF BIOMASS TO USEFUL MATERIALS & MANUFACTURED ARTICLES, NUTRIENT RECYCLING AND CELLULAR AGRICULTURE, BY NEAR-CLOSURE SELF-REPLICATING SYSTEMS.**

[54] **CULTURE DE BIOMASSE EFFICACE A GESTION DE LUMIERE ET A GESTION THERMIQUE, TRAITEMENT DE BIOMASSE EN MATERIAUX UTILES & ARTICLES FABRIQUES, RECYCLAGE DE NUTRIMENTS ET AGRICULTURE CELLULAIRE PAR DES SYSTEMES A AUTO-REPLICATION DE FERMETURE PROCH**

[72] RABANI, ELI, MICHAEL, US  
[71] RABANI, ELI, MICHAEL, US  
[85] 2023-11-20  
[86] 2022-05-19 (PCT/US2022/029929)  
[87] (WO2022/246013)

[21] **3,219,688**  
[13] A1

[51] **Int.Cl. E06B 9/15 (2006.01) E06B 9/34 (2006.01) E06B 9/42 (2006.01)**

[25] EN

[54] **ROLLING SHUTTER MODULAR UTILITY SLAT**

[54] **LAMELLE UTILITAIRE MODULAIRE DE VOLET ROULANT**

[72] ZARBECK, CRAIG N., US  
[72] AMIL, ORLANDO, US  
[71] QUALITAS MANUFACTURING INCORPORATED, US  
[85] 2023-11-20  
[86] 2022-06-13 (PCT/US2022/033311)  
[87] (WO2022/266018)  
[30] US (63/210,461) 2021-06-14  
[30] US (17/839,229) 2022-06-13  
[30] US (63/233,714) 2021-08-16

[21] **3,219,689**  
[13] A1

[51] **Int.Cl. G06Q 10/04 (2023.01) A01B 79/02 (2006.01)**

[25] EN

[54] **COMPUTER-IMPLEMENTED METHOD FOR APPLYING A GLUTAMINE SYNTHETASE INHIBITOR ON AN AGRICULTURAL FIELD**

[54] **PROCEDE INFORMATISE D'APPLICATION D'UN INHIBITEUR DE GLUTAMINE SYNTHETASE SUR UN CHAMP AGRICOLE**

[72] SOYK, ANNA, DE  
[72] BREITINGER, ELKE, DE  
[72] SIMON, ANJA, DE  
[71] BASF SE, DE  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/EP2022/063797)  
[87] (WO2022/243546)  
[30] EP (21175343.9) 2021-05-21

[21] **3,219,690**  
[13] A1

[51] **Int.Cl. C08F 214/22 (2006.01) H01M 4/139 (2010.01) H01M 10/0525 (2010.01) C09J 127/16 (2006.01)**

[25] EN

[54] **HIGH PERFORMANCE BINDERS FOR LITHIUM BATTERY ELECTRODES**

[54] **LIANTS A HAUTE PERFORMANCE POUR ELECTRODES DE BATTERIE AU LITHIUM**

[72] ABUSLEME, JULIO A., IT  
[72] BRUSSEAU, SEGOLENE, FR  
[72] ORIANI, ANDREA VITTORIO, IT  
[72] FIORE, MICHELE, IT  
[72] BIANCARDI, ROBERTO, IT  
[71] SOLVAY SPECIALTY POLYMERS ITALY S.P.A., IT  
[85] 2023-11-20  
[86] 2022-06-06 (PCT/EP2022/065290)  
[87] (WO2022/258551)  
[30] EP (21305792.0) 2021-06-10

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[21] **3,219,691**  
[13] A1

[51] **Int.Cl. E06B 9/15 (2006.01)**  
[25] EN  
[54] **ROLLING SHUTTER SYSTEM**  
[54] **SYSTEME DE VOLET ROULANT**  
[72] MILLER, JAMES V., US  
[72] ZARBECK, CRAIG N., US  
[72] AMIL, ORLANDO, US  
[71] QUALITAS MANUFACTURING  
INCORPORATED, US  
[85] 2023-11-20  
[86] 2022-06-13 (PCT/US2022/033307)  
[87] (WO2022/266016)  
[30] US (63/210,461) 2021-06-14  
[30] US (17/839,166) 2022-06-13

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[21] **3,219,692**  
[13] A1

[51] **Int.Cl. C21C 7/00 (2006.01) C21C**  
**7/10 (2006.01)**  
[25] EN  
[54] **MOLTEN STEEL**  
**DENITRIFICATION METHOD**  
**AND STEEL PRODUCTION**  
**METHOD**  
[54] **PROCEDE DE DENITRIFICATION**  
**D'ACIER FONDU ET PROCEDE**  
**DE PRODUCTION D'ACIER**  
[72] NEGISHI, HIDEMITSU, JP  
[72] YAMADA, REI, JP  
[71] JFE STEEL CORPORATION, JP  
[85] 2023-11-20  
[86] 2022-05-12 (PCT/JP2022/020007)  
[87] (WO2022/259805)  
[30] JP (2021-098118) 2021-06-11

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[21] **3,219,693**  
[13] A1

[51] **Int.Cl. C21D 8/12 (2006.01) C22C**  
**38/00 (2006.01) C22C 38/60 (2006.01)**  
**H01F 27/245 (2006.01) H01F 41/02**  
**(2006.01)**  
[25] EN  
[54] **WOUND CORE AND METHOD**  
**FOR PRODUCING WOUND CORE**  
[54] **NOYAU ENROULE ET PROCEDE**  
**DE FABRICATION DE NOYAU**  
**ENROULE**  
[72] INOUE, HIROTAKA, JP  
[72] OMURA, TAKESHI, JP  
[72] SENDA, KUNIHIRO, JP  
[71] JFE STEEL CORPORATION, JP  
[85] 2023-11-20  
[86] 2022-06-08 (PCT/JP2022/023038)  
[87] (WO2023/007952)  
[30] JP (2021-124863) 2021-07-30

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[21] **3,219,694**  
[13] A1

[51] **Int.Cl. C21D 8/12 (2006.01) C22C**  
**38/00 (2006.01) C22C 38/60 (2006.01)**  
**H01F 27/245 (2006.01) H01F 41/02**  
**(2006.01)**  
[25] EN  
[54] **WOUND CORE AND METHOD**  
**FOR PRODUCING WOUND CORE**  
[54] **NOYAU ENROULE ET PROCEDE**  
**DE FABRICATION DE NOYAU**  
**ENROULE**  
[72] INOUE, HIROTAKA, JP  
[72] OMURA, TAKESHI, JP  
[72] SENDA, KUNIHIRO, JP  
[71] JFE STEEL CORPORATION, JP  
[85] 2023-11-20  
[86] 2022-06-08 (PCT/JP2022/023039)  
[87] (WO2023/007953)  
[30] JP (2021-124864) 2021-07-30

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[21] **3,219,696**  
[13] A1

[51] **Int.Cl. F24F 7/06 (2006.01) F24F**  
**11/77 (2018.01)**  
[25] EN  
[54] **AIR CONDITIONING SYSTEM**  
[54] **SYSTEME DE CLIMATISATION**  
[72] NISHIMURA, NORITOSHI, JP  
[72] IMAGUCHI, NOBUHIRO, JP  
[72] MATSUZAKI, KAZUHIRO, JP  
[72] SATO, YUUITI, JP  
[71] HITACHI GLOBAL LIFE  
SOLUTIONS, INC., JP  
[85] 2023-11-20  
[86] 2021-06-04 (PCT/JP2021/021407)  
[87] (WO2022/254705)

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[21] **3,219,698**  
[13] A1

[51] **Int.Cl. G06F 9/50 (2006.01) H04B**  
**17/391 (2015.01)**  
[25] EN  
[54] **SYSTEMS AND METHODS FOR**  
**CHANNEL SIMULATION OF**  
**SIGNALS REPRESENTATIVE OF**  
**A COMMUNICATION SIGNAL**  
[54] **SYSTEMES ET PROCEDES DE**  
**SIMULATION DE CANAL DE**  
**SIGNAUX REPRESENTATIFS**  
**D'UN SIGNAL DE**  
**COMMUNICATION**  
[72] JARRIEL, JEFFREY DAVID, US  
[72] SUTTON, DANIEL JOSEPH, US  
[72] STOLTENBERG, MATTHEW  
JAMES, US  
[72] KING, BRANDON GREGORY, US  
[71] KRATOS INTEGRAL HOLDINGS,  
LLC, US  
[85] 2023-11-20  
[86] 2021-05-24 (PCT/US2021/033875)  
[87] (WO2022/250648)

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[21] **3,219,699**  
[13] A1

[51] **Int.Cl. G01D 11/30 (2006.01)**  
[25] EN  
[54] **SANITARY SINGLE-USE**  
**PROCESS CONNECTION WITH**  
**INTEGRAL WET STORAGE FOR**  
**USE WITH PROCESS SENSORS**  
[54] **RACCORDEMENT DE**  
**PROCESSUS SANITAIRE A**  
**USAGE UNIQUE AVEC**  
**STOCKAGE HUMIDE INTEGRE**  
**DESTINE A ETRE UTILISE AVEC**  
**DES CAPTEURS DE PROCESSUS**  
[72] DIERKER, ANDREW S., US  
[72] RUCH, TYREL L., US  
[72] HU, JINBO, US  
[72] AHMED, TAUFIQ, US  
[72] MCGUIRE, CHAD M., US  
[71] ROSEMOUNT INC, US  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/US2022/030240)  
[87] (WO2022/246188)  
[30] US (63/191,597) 2021-05-21

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[21] **3,219,700**  
[13] A1

[51] **Int.Cl. E04H 15/06 (2006.01) E04H 15/30 (2006.01)**  
[25] EN  
[54] **VEHICULAR ROOFTOP TENT**  
[54] **TENTE DE TOIT POUR VEHICULE**  
[72] PARK, SOON GYU, KR  
[71] IKAMPER CO., LTD., KR  
[85] 2023-11-20  
[86] 2022-05-17 (PCT/KR2022/007057)  
[87] (WO2022/245107)  
[30] KR (10-2021-0064142) 2021-05-18

[21] **3,219,703**  
[13] A1

[51] **Int.Cl. G06T 19/20 (2011.01)**  
[25] FR  
[54] **GENERATION OF AN AREAL MESH FROM A VOXEL MODEL OF A THREE-DIMENSIONAL ENVIRONMENT**  
[54] **GENERATION D'UN MAILLAGE SURFACIQUE A PARTIR D'UNE MODELISATION EN VOXELS D'UN ENVIRONNEMENT TRIDIMENSIONNEL**  
[72] GRIS, GUILLAUME, FR  
[72] TRETNER, PHILIP ULRICH, DE  
[71] NOVAQUARK, FR  
[85] 2023-11-20  
[86] 2022-05-13 (PCT/FR2022/050913)  
[87] (WO2022/243626)  
[30] FR (FR2105352) 2021-05-21

[21] **3,219,705**  
[13] A1

[51] **Int.Cl. C08G 65/26 (2006.01) C08C 19/06 (2006.01) C08C 19/40 (2006.01) C08G 59/02 (2006.01) C08G 59/14 (2006.01) C08G 59/34 (2006.01)**  
[25] EN  
[54] **HYDROGENATED POLYETHER-MODIFIED POLYBUTADIENES AND PROCESSES FOR PREPARATION THEREOF**  
[54] **POLYBUTADIENES HYDROGENES MODIFIES PAR POLYETHER ET LEUR PROCEDE DE PREPARATION**  
[72] LOBERT, MATTHIAS, DE  
[72] OTTO, SARAH, DE  
[72] URBAN, MICHAEL, DE  
[72] SCHUBERT, FRANK, DE  
[72] HENNING, FRAUKE, DE  
[71] EVONIK OPERATIONS GMBH, DE  
[85] 2023-11-20  
[86] 2022-05-16 (PCT/EP2022/063153)  
[87] (WO2022/248266)  
[30] EP (21176122.6) 2021-05-27

[21] **3,219,706**  
[13] A1

[51] **Int.Cl. A61K 38/46 (2006.01)**  
[25] EN  
[54] **ALKALINE PHOSPHATASE-BASED TREATMENTS OF CELIAC DISEASE**  
[54] **TRAITEMENTS A BASE DE PHOSPHATASE ALCALINE DE LA MALADIE C?LIAQUE**  
[72] KALEKO, MICHAEL, US  
[71] THERIVA BIOLOGICS, INC., US  
[85] 2023-11-20  
[86] 2022-05-24 (PCT/US2022/030653)  
[87] (WO2022/251164)  
[30] US (63/192,265) 2021-05-24

[21] **3,219,707**  
[13] A1

[51] **Int.Cl. B01J 37/03 (2006.01) B01J 37/14 (2006.01)**  
[25] EN  
[54] **A HYDROGENATION CATALYST AND ITS PRECURSOR COMPRISING NI, AL, AND A SUPPORT MATERIAL COMPRISING SIO2**  
[54] **CATALYSEUR D'HYDROGENATION ET SON PRECURSEUR COMPRENANT DU NI, DE L'AL ET UN MATERIAU DE SUPPORT COMPRENANT DU SIO2**  
[72] KAMSMA, GERDA, NL  
[72] TERORDE, ROBERT, NL  
[72] YARULINA, IRINA, DE  
[71] IQATALYST B.V., NL  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/EP2022/063715)  
[87] (WO2022/243513)  
[30] EP (21175230.8) 2021-05-21

[21] **3,219,708**  
[13] A1

[51] **Int.Cl. G01N 27/30 (2006.01) G01N 27/403 (2006.01) G01N 27/416 (2006.01)**  
[25] EN  
[54] **HIGH PRESSURE SINGLE-USE ELECTROCHEMICAL ANALYTICAL SENSOR**  
[54] **CAPTEUR ANALYTIQUE ELECTROCHIMIQUE HAUTE PRESSION A USAGE UNIQUE**  
[72] DIERKER, ANDREW S., US  
[72] RUCH, TYREL L., US  
[72] MCGUIRE, CHAD M., US  
[72] HU, JINBO, US  
[72] SUMRALL, RICK J., US  
[72] AHMED, TAUFIQ, US  
[71] ROSEMOUNT INC, US  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/US2022/030266)  
[87] (WO2022/246206)  
[30] US (63/191,608) 2021-05-21

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[21] **3,219,709**  
[13] A1

[51] **Int.Cl. B29C 64/188 (2017.01) A61L 27/44 (2006.01) A61L 27/52 (2006.01) C09D 11/02 (2014.01)**

[25] EN

[54] **METHOD FOR FABRICATION OF ADDITIVELY MANUFACTURED, SELF-GELLING STRUCTURES AND THEIR USE**

[54] **PROCEDE DE FABRICATION DE STRUCTURES AUTO-GELIFIANTES FABRIQUEES DE MANIERE ADDITIVE ET LEURS UTILISATIONS**

[72] JAKUS, ADAM E., US

[71] DIMENSION INX CORP, US

[85] 2023-11-20

[86] 2022-03-18 (PCT/US2022/021007)

[87] (WO2022/265705)

[30] US (63/212,420) 2021-06-18

[21] **3,219,710**  
[13] A1

[51] **Int.Cl. A43B 17/18 (2006.01)**

[25] EN

[54] **SHOE PROTECTOR DEVICE AND APPLICATOR**

[54] **DISPOSITIF DE PROTECTION DE CHAUSSURE ET APPLICATEUR**

[72] CHANCELLOR, ANDREW, GB

[71] TRAINER ARMOUR LIMITED, GB

[85] 2023-11-20

[86] 2022-05-06 (PCT/EP2022/062253)

[87] (WO2022/248190)

[30] GB (2107528.8) 2021-05-27

[21] **3,219,711**  
[13] A1

[25] EN

[54] **C4 PLANTS WITH INCREASED PHOTOSYNTHETIC EFFICIENCY**

[54] **PLANTES EN C4 A EFFICACITE PHOTOSYNTHETIQUE ACCRUE**

[72] LONG, STEPHEN P., US

[72] WANG, YU, US

[72] CHAN, KHER XING, US

[71] THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS, US

[85] 2023-11-20

[86] 2022-05-26 (PCT/US2022/031036)

[87] (WO2022/251428)

[30] US (63/193,566) 2021-05-26

[21] **3,219,712**  
[13] A1

[51] **Int.Cl. C08G 59/02 (2006.01) C08G 65/26 (2006.01)**

[25] EN

[54] **HYDROGENATED POLYETHER-MODIFIED AMINO-FUNCTIONAL POLYBUTADIENES AND PROCESSES FOR PREPARATION THEREOF**

[54] **POLYBUTADIENES HYDROGENES A FONCTION AMINO MODIFIES PAR POLYETHER ET LEUR PROCEDE DE PREPARATION**

[72] LOBERT, MATTHIAS, DE

[72] SCHUBERT, FRANK, DE

[72] URBAN, MICHAEL, DE

[72] OTTO, SARAH, DE

[72] HENNING, FRAUKE, DE

[71] EVONIK OPERATIONS GMBH, DE

[85] 2023-11-20

[86] 2022-05-16 (PCT/EP2022/063156)

[87] (WO2022/248267)

[30] EP (21176124.2) 2021-05-27

[21] **3,219,713**  
[13] A1

[51] **Int.Cl. C07K 16/24 (2006.01) A61P 3/10 (2006.01) A61P 17/06 (2006.01) A61P 37/02 (2006.01)**

[25] EN

[54] **ANTI-HUMAN INTERFERON ? RECEPTOR 1 MONOCLONAL ANTIBODY AND APPLICATION THEREOF**

[54] **ANTICORPS MONOCLONAL ANTI-RECEPTEUR 1 DE L'INTERFERON ? HUMAIN ET SON APPLICATION**

[72] QIU, JIWAN, CN

[72] KONG, YONG, CN

[72] CHEN, WEI, CN

[72] QIAO, HUAIYAO, CN

[72] QIU, ZHIHUA, CN

[72] WU, YILIANG, CN

[72] CHEN, TAO, CN

[72] WU, MEIJUAN, CN

[71] QYUNS THERAPEUTICS CO., LTD., CN

[85] 2023-11-20

[86] 2021-08-27 (PCT/CN2021/114951)

[87] (WO2022/247030)

[30] CN (202110586032.4) 2021-05-27

[21] **3,219,714**  
[13] A1

[51] **Int.Cl. G01N 21/956 (2006.01) G06T 7/529 (2017.01) G06T 7/13 (2017.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR DULL GRADING**

[54] **SYSTEMES ET PROCEDES POUR L'ETALONNAGE DE L'USURE**

[72] CHOWHAN, TUSHAR, IN

[72] LINFORD, BRANDON PAUL, US

[72] SCHMIDT, SCOTT, US

[71] US SYNTHETIC CORPORATION, US

[71] EXO-FIELD ENGINEERING SOLUTIONS PVT LTD., IN

[85] 2023-11-20

[86] 2022-05-23 (PCT/US2022/030520)

[87] (WO2022/251108)

[30] US (63/192,710) 2021-05-25

[21] **3,219,716**  
[13] A1

[51] **Int.Cl. A61P 9/10 (2006.01) A61P 25/02 (2006.01) A61P 25/28 (2006.01) A61P 27/02 (2006.01)**

[25] EN

[54] **METHOD FOR MODULATING NEUROPATHIES**

[54] **PROCEDE DE MODULATION DE NEUROPATHIES**

[72] ZENG, WEN, CN

[72] GONG, LI, CN

[71] CHENGDU WENDING TECHNOLOGY DEVELOPMENT CO., LTD., CN

[85] 2023-11-20

[86] 2022-05-20 (PCT/CN2022/094251)

[87] (WO2022/242766)

[30] CN (202110560773.5) 2021-05-21

[30] CN (202210110224.2) 2022-01-28

[21] **3,219,717**  
[13] A1

[51] **Int.Cl. B01J 20/289 (2006.01) B01D 15/38 (2006.01) B01J 20/32 (2006.01) B01J 20/34 (2006.01)**

[25] EN

[54] **SCAFFOLD FOR ISOLATION OF A BIOMOLECULE**

[54] **ECHAFAUDAGE PERMETTANT D'ISOLER UNE BIOMOLECULE**

[72] BURTON, STEVE, GB

[72] SADLER, CHRIS, GB

[71] ASTREA UK SERVICES LIMITED, GB

[85] 2023-11-20

[86] 2022-05-24 (PCT/GB2022/051301)

[87] (WO2022/248846)

[30] GB (2107352.3) 2021-05-24

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[21] **3,219,718**  
[13] A1

[51] **Int.Cl. A61F 2/852 (2013.01) A61F 2/954 (2013.01) A61F 2/90 (2013.01)**

[25] EN

[54] **STENT FOR BIFURCATED VESSEL**

[54] **ENDOPROTHESE POUR VAISSEAU EN FORME DE FOURCHE**

[72] BENTRIDI, AHMED, CA

[71] BENTRIDI, AHMED, CA

[85] 2023-11-20

[86] 2022-06-08 (PCT/CA2022/050912)

[87] (WO2022/256924)

[30] US (63/208,015) 2021-06-08

[21] **3,219,719**  
[13] A1

[51] **Int.Cl. B60K 6/20 (2007.10) B60K 6/52 (2007.10) B60W 30/188 (2012.01) B60W 20/10 (2016.01) B60W 20/16 (2016.01)**

[25] EN

[54] **APPARATUS AND METHOD FOR CONTROLLING TRANSITIONS IN A MULTI-COMBUSTION MODE INTERNAL-COMBUSTION ENGINE WITHIN A HYBRID-ELECTRIC VEHICLE**

[54] **APPAREIL ET PROCEDE DE COMMANDE DE TRANSITIONS DANS UN MOTEUR A COMBUSTION INTERNE A MODE DE COMBUSTION MULTIPLE, DANS UN VEHICULE HYBRIDE-ELECTRIQUE**

[72] SHUI, FANG, US

[71] SHUI, FANG, US

[85] 2023-11-20

[86] 2022-05-14 (PCT/IB2022/054506)

[87] (WO2022/248966)

[30] US (17/329,330) 2021-05-25

[30] US (17/661,851) 2022-05-03

[21] **3,219,721**  
[13] A1

[25] EN

[54] **EDIBLE FAT-CONTAINING PRODUCTS**

[54] **PRODUITS COMESTIBLES CONTENANT DE LA GRAISSE**

[72] SMIT-KINGMA, IRENE ERICA, NL

[72] POTMAN, RONALD PETER, NL

[72] DOL, GEORG CHRISTIAN, NL

[71] UPFIELD EUROPE B.V., NL

[85] 2023-11-20

[86] 2022-05-25 (PCT/EP2022/064259)

[87] (WO2022/248578)

[30] EP (21175884.2) 2021-05-26

[21] **3,219,722**  
[13] A1

[51] **Int.Cl. B01J 8/00 (2006.01) B01J 8/18 (2006.01) B01J 19/00 (2006.01)**

[25] EN

[54] **A SYSTEM FOR OPTIMIZING FIRED-HEATER OPERATION THROUGH MONITORING OF HIGH TEMPERATURE DEHYDROGENATION PROCESSES**

[54] **SYSTEME D'OPTIMISATION DE FONCTIONNEMENT DE CHAUFFE-EAU PAR SURVEILLANCE DE PROCEDES DE DESHYDROGENATION A HAUTE TEMPERATURE**

[72] HARRIS, JAMES W., US

[72] JAIN, PARAG, US

[72] ADAMS, PAUL, US

[72] GRAPENTHIEN, MICHAEL J., US

[72] LATTANZIO, LOUIS A., US

[72] TIWARI, PRIYANK, US

[72] LUEBKE, CHARLES P., US

[72] WISECARVER, ZUDIKEY, US

[72] DIGIULIO, CHRISTOPHER, US

[71] UOP LLC, US

[85] 2023-11-20

[86] 2022-05-20 (PCT/US2022/072479)

[87] (WO2022/251799)

[30] US (17/329,591) 2021-05-25

[21] **3,219,723**  
[13] A1

[51] **Int.Cl. B62D 21/03 (2006.01) B60K 1/02 (2006.01)**

[25] EN

[54] **UNIVERSAL CHASSIS FRAME FOR MEDIUM-DUTY CONFIGURABLE ELECTRIC TRUCKS**

[54] **CADRE DE CHASSIS UNIVERSEL POUR CAMIONS ELECTRIQUES CONFIGURABLES DE POIDS MOYEN**

[72] GRINSTEAD, ROBERT L., US

[71] ZEUS ELECTRIC CHASSIS, INC., US

[85] 2023-11-20

[86] 2022-05-19 (PCT/US2022/030059)

[87] (WO2022/246079)

[30] US (63/190,474) 2021-05-19

[21] **3,219,724**  
[13] A1

[51] **Int.Cl. H04R 3/04 (2006.01) H03F 1/32 (2006.01) H03F 1/34 (2006.01) H03F 3/183 (2006.01) H03F 3/185 (2006.01) H04R 25/00 (2006.01)**

[25] EN

[54] **AUDIO SIGNAL REPRODUCTION**

[54] **REPRODUCTION DE SIGNAL AUDIO**

[72] VANDEN BROECK, MICHEL, CA

[71] TENOR INC., CA

[85] 2023-11-20

[86] 2022-07-04 (PCT/CA2022/051056)

[87] (WO2023/272401)

[30] US (63/217,846) 2021-07-02

[21] **3,219,725**  
[13] A1

[51] **Int.Cl. A23L 7/104 (2016.01)**

[25] EN

[54] **METHOD FOR MANUFACTURING PROCESSED OAT FOOD, BEVERAGE OR FOOD MATERIAL**

[54] **PROCEDE DE PRODUCTION D'ALIMENT, DE BOISSON OU DE MATIERE ALIMENTAIRE A BASE D'AVOINE**

[72] MATSUOKA, TOMOHIRO, JP

[71] AMANO ENZYME INC., JP

[85] 2023-11-20

[86] 2022-05-20 (PCT/JP2022/020989)

[87] (WO2022/244875)

[30] JP (2021-086113) 2021-05-21

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[21] **3,219,726**  
[13] A1

[51] **Int.Cl. A24F 40/42 (2020.01) A24F 40/30 (2020.01) A24F 40/485 (2020.01) A24F 40/10 (2020.01) A24F 40/20 (2020.01) A24F 40/70 (2020.01) A24B 15/10 (2006.01)**

[25] EN

[54] **A CONSUMABLE FOR USE WITH AN AEROSOL PROVISION DEVICE**

[54] **CONSOMMABLE DESTINE A ETRE UTILISE AVEC UN DISPOSITIF DE GENERATION D'AEROSOL**

[72] ASHRAF, MUHAMMAD FAHIM ASHRAF, GB

[72] AOUN, WALID ABI, GB

[71] BRITISH AMERICAN TOBACCO (INVESTMENTS) LIMITED, GB

[85] 2023-11-20

[86] 2022-05-19 (PCT/EP2022/063587)

[87] (WO2022/243439)

[30] GB (2107265.7) 2021-05-20

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[21] **3,219,728**  
[13] A1

[51] **Int.Cl. F41G 1/38 (2006.01)**

[25] EN

[54] **AUTO-CENTRE BARREL CAM FOR SMALL OPTICAL SYSTEMS**

[54] **CAME-TAMBOUR AUTO-CENTREE POUR PETITS SYSTEMES OPTIQUES**

[72] GREEN, ROBERT, CA

[71] RAYTHEON CANADA LIMITED, CA

[85] 2023-11-20

[86] 2022-05-25 (PCT/US2022/030842)

[87] (WO2022/251305)

[30] US (63/192,859) 2021-05-25

[30] US (17/752,700) 2022-05-24

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[21] **3,219,729**  
[13] A1

[51] **Int.Cl. C09J 11/04 (2006.01) C09J 101/02 (2006.01) C09J 161/06 (2006.01)**

[25] EN

[54] **ENGINEERED WOOD ADHESIVES AND ENGINEERED WOOD PRODUCT THEREFROM**

[54] **ADHESIFS POUR BOIS D'INGENIERIE ET BOIS D'INGENIERIE AINSI PRODUIT**

[72] GARLIE, DAVID EDWARD, US

[72] MARKLAND, JR. FLAVE EUGENE, US

[72] ZHOU, SHUANG, US

[71] CARGILL, INCORPORATED, US

[85] 2023-11-20

[86] 2021-05-28 (PCT/US2021/034906)

[87] (WO2022/250698)

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[21] **3,219,730**  
[13] A1

[51] **Int.Cl. F24T 10/10 (2018.01) F24T 10/30 (2018.01) E21B 34/14 (2006.01) E21B 43/26 (2006.01) E21B 43/267 (2006.01) E21B 43/27 (2006.01)**

[25] EN

[54] **METHOD FOR MULTISTAGE FRACTURING OF A GEOTHERMAL WELL**

[54] **PROCEDE DE FRACTURATION A PLUSIEURS ETAGES D'UN Puits GEOTHERMIQUE**

[72] WERRIES, MICHAEL, CA

[72] POWELL, JESSE, CA

[72] KING, JAMES, US

[71] NCS MULTISTAGE INC., CA

[71] NCS MULTISTAGE, LLC, US

[85] 2023-11-20

[86] 2022-05-20 (PCT/CA2022/050806)

[87] (WO2022/241567)

[30] US (63/191,792) 2021-05-21

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[21] **3,219,732**  
[13] A1

[51] **Int.Cl. A61K 47/14 (2017.01) A61K 31/355 (2006.01) A61K 47/44 (2017.01) A61P 15/06 (2006.01)**

[25] EN

[54] **COMPOSITION COMPRISING AN ESTER OF ALPHA-TOCOPHEROL FOR REDUCING THE RISK OF PRETERM BIRTH**

[54] **COMPOSITION COMPRENANT UN ESTER D'ALPHA-TOCOPHEROL POUR REDUIRE LE RISQUE DE NAISSANCE PREATUREE**

[72] PANIN, GIORGIO, IT

[71] HULKA S.R.L., IT

[85] 2023-11-20

[86] 2022-05-16 (PCT/EP2022/063177)

[87] (WO2022/248269)

[30] IT (102021000013898) 2021-05-27

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[21] **3,219,733**  
[13] A1

[51] **Int.Cl. G06V 10/70 (2022.01) G06T 7/73 (2017.01) G06N 20/00 (2019.01) G06V 10/46 (2022.01) G06V 10/774 (2022.01)**

[25] EN

[54] **TRANSFER LEARNING IN IMAGE RECOGNITION SYSTEMS**

[54] **APPRENTISSAGE DE TRANSFERT DANS DES SYSTEMES DE RECONNAISSANCE D'IMAGE**

[72] CONDER, JONATHAN, NZ

[72] NEJATI, ALIREZA, NZ

[72] PAGES, NATHAN, NZ

[71] SOUL MACHINES LIMITED, NZ

[85] 2023-11-20

[86] 2022-05-23 (PCT/IB2022/054803)

[87] (WO2022/243985)

[30] NZ (776441) 2021-05-21

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[21] **3,219,734**  
[13] A1

[25] EN  
[54] **SPRAY DEVICE FOR SPRAYING LIQUID ON CROPS**  
[54] **DISPOSITIF DE PULVERISATION POUR PULVERISER UN LIQUIDE SUR DES RECOLTES**  
[72] HOEBEN, JOHN LEONARDUS  
KAREL ANNA, NL  
[72] HOEBEN, ROBERTUS MATHEUS ANNA, NL  
[72] HOEBEN, HENRICUS JOHANNES GODEFRIDUS MARIA, NL  
[71] HOEBEN, JOHN LEONARDUS KAREL ANNA, NL  
[71] HOEBEN, ROBERTUS MATHEUS ANNA, NL  
[71] HOEBEN, HENRICUS JOHANNES GODEFRIDUS MARIA, NL  
[85] 2023-11-20  
[86] 2021-05-25 (PCT/NL2021/050326)  
[87] (WO2021/242093)  
[30] NL (2025672) 2020-05-26

[21] **3,219,735**  
[13] A1

[51] **Int.Cl. C07K 16/40 (2006.01) C12N 15/85 (2006.01) G01N 33/68 (2006.01)**  
[25] EN  
[54] **ANTIBODY SPECIFICALLY BINDING TO ASM PROTEIN**  
[54] **ANTICORPS SE LIANT SPECIFIQUEMENT A UNE PROTEINE ASM**  
[72] HONG, SEUNG BEOM, KR  
[72] HONG, MI RIM, KR  
[71] ISU ABXIS CO., LTD., KR  
[85] 2023-11-20  
[86] 2022-05-26 (PCT/KR2022/095105)  
[87] (WO2022/250520)  
[30] KR (10-2021-0068075) 2021-05-27  
[30] KR (10-2022-0047295) 2022-04-18

[21] **3,219,736**  
[13] A1

[51] **Int.Cl. A24F 40/465 (2020.01)**  
[25] EN  
[54] **AEROSOL PROVISION DEVICE**  
[54] **DISPOSITIF DE FOURNITURE D'AEROSOL**  
[72] TAVERN, SYD, GB  
[71] NICOVENTURES TRADING LIMITED, GB  
[85] 2023-11-20  
[86] 2022-05-24 (PCT/EP2022/064125)  
[87] (WO2022/248511)  
[30] GB (2107483.6) 2021-05-26

[21] **3,219,737**  
[13] A1

[51] **Int.Cl. H02J 7/00 (2006.01)**  
[25] EN  
[54] **ENERGY STORAGE SYSTEM, PRIMARY ENERGY-STORAGE-APPARATUS, AND AUXILIARY ENERGY-STORAGE-APPARATUS**  
[54] **SYSTEME DE STOCKAGE D'ENERGIE, APPAREIL DE STOCKAGE D'ENERGIE PRINCIPAL ET APPAREIL DE STOCKAGE D'ENERGIE AUXILIAIRE**  
[72] LEI, YUN, CN  
[72] ZHANG, ZHIFENG, CN  
[72] OUYANG, MINGXING, CN  
[71] SHENZHEN CAR KU TECHNOLOGY CO., LIMITED, CN  
[85] 2023-11-20  
[86] 2022-03-15 (PCT/CN2022/081041)  
[87] (WO2022/194179)  
[30] CN (202120545786.0) 2021-03-16

[21] **3,219,738**  
[13] A1

[51] **Int.Cl. C09K 8/584 (2006.01)**  
[25] EN  
[54] **QUANTUM DOT NANOFUIDS**  
[54] **NANOFUIDES RENFERMANT DES BOITES QUANTIQUES**  
[72] GOUAL, LAMIA, US  
[72] RANE, KAUSTUBH SHRIRAM, US  
[72] ZHANG, BINGJUN, US  
[71] UNIVERSITY OF WYOMING, US  
[85] 2023-11-20  
[86] 2021-11-01 (PCT/US2021/057610)  
[87] (WO2022/245388)  
[30] US (17/324,532) 2021-05-19

[21] **3,219,739**  
[13] A1

[51] **Int.Cl. E21B 34/14 (2006.01) E21B 43/14 (2006.01)**  
[25] EN  
[54] **DOWNHOLE VALVE ASSEMBLY**  
[54] **ENSEMBLE VANNE DE FOND DE TROU**  
[72] WERRIES, MICHAEL, CA  
[72] POWELL, JESSE, CA  
[72] KING, JAMES, US  
[71] NCS MULTISTAGE INC., CA  
[71] NCS MULTISTAGE, LLC, US  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/CA2022/050809)  
[87] (WO2022/241569)  
[30] US (63/266,244) 2021-12-30  
[30] US (63/191,622) 2021-05-21

[21] **3,219,740**  
[13] A1

[51] **Int.Cl. C09J 11/04 (2006.01) C09J 101/02 (2006.01)**  
[25] EN  
[54] **ENGINEERED WOOD ADHESIVES AND ENGINEERED WOOD PRODUCT THEREFROM**  
[54] **ADHESIFS POUR BOIS D'INGENIERIE ET BOIS D'INGENIERIE AINSI PRODUIT**  
[72] GARLIE, DAVID EDWARD, US  
[72] MARKLAND, JR. FLAVE EUGENE, US  
[72] ZHOU, SHUANG, US  
[71] CARGILL, INCORPORATED, US  
[85] 2023-11-20  
[86] 2021-12-23 (PCT/US2021/065101)  
[87] (WO2022/250734)  
[30] US (PCT/US2021/034906) 2021-05-28

[21] **3,219,741**  
[13] A1

[51] **Int.Cl. A01B 69/04 (2006.01)**  
[25] EN  
[54] **AUTOMATED LAWN APPLICATION CONTROL SYSTEM AND METHODS THEREFOR**  
[54] **SYSTEME DE COMMANDE D'APPLICATION SUR PELOUSE AUTOMATISE ET PROCEDES ASSOCIES**  
[72] MCCLURE JR., JAMES G., US  
[72] NEZHAD, MEHRDAD AREFI, US  
[72] HASHEMI, MEHDI, US  
[71] ALACS, LLC, US  
[85] 2023-11-20  
[86] 2022-04-07 (PCT/US2022/023800)  
[87] (WO2022/212959)  
[30] US (63/217,236) 2021-06-30

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[21] **3,219,742**  
[13] A1

[51] **Int.Cl. A61P 37/06 (2006.01) C07K 14/78 (2006.01) C07K 16/28 (2006.01)**  
[25] EN  
[54] **CD40L ANTAGONIST AND USES THEREOF IN THE TREATMENT OF LUPUS NEPHRITIS**  
[54] **ANTAGONISTE DE CD40L ET SES UTILISATIONS DANS LE TRAITEMENT DE LA NEPHROPATHIE LUPIQUE**  
[72] ILLEI, GABOR, US  
[72] ALEVIZOS, ILIAS, US  
[72] DRAPPA, JORN, US  
[72] REES, WILLIAM, US  
[71] VIELA BIO, INC., US  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/US2022/030290)  
[87] (WO2022/246225)  
[30] US (63/191,514) 2021-05-21  
[30] US (63/235,520) 2021-08-20

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[21] **3,219,743**  
[13] A1

[51] **Int.Cl. A24F 23/04 (2006.01)**  
[25] EN  
[54] **SNUS CONTAINER**  
[54] **RECIPIENT DE SNUS**  
[72] TOMMY, ASTERHED, SE  
[71] SAVJO PLASTIC AB, SE  
[85] 2023-11-20  
[86] 2022-04-07 (PCT/EP2022/059247)  
[87] (WO2022/242954)  
[30] SE (2150650-6) 2021-05-21

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[21] **3,219,744**  
[13] A1

[51] **Int.Cl. C07D 413/14 (2006.01) A01N 43/56 (2006.01) A01N 43/707 (2006.01) A01N 43/76 (2006.01) A01N 43/78 (2006.01) A01N 43/80 (2006.01) A01N 43/824 (2006.01) A01N 43/836 (2006.01) A01P 3/00 (2006.01) C07D 401/14 (2006.01) C07D 405/14 (2006.01) C07D 409/14 (2006.01) C07D 417/14 (2006.01)**  
[25] EN  
[54] **MICROBIOCIDAL TETRAHYDROISOQUINOLINE DERIVATIVES**  
[54] **DERIVES DE TETRAHYDROISOQUINOLEINE MICROBIOCIDES**  
[72] SCARBOROUGH, CHRISTOPHER CHARLES, CH  
[72] EDMUNDS, ANDREW, CH  
[72] BIGOT, AURELIEN, CH  
[72] LAMBERTH, CLEMENS, CH  
[72] STIERLI, DANIEL, CH  
[72] EL QACEMI, MYRIEM, CH  
[72] MAHAJAN, ATUL, IN  
[72] COMPAGNONE, NICOLA, CH  
[72] LUMBROSO, ALEXANDRE FRANCO JEAN CAMILLE, CH  
[72] WILLIAMS, SIMON, CH  
[72] JUNG, PIERRE JOSEPH MARCEL, CH  
[72] FINKBEINER, PETER, CH  
[72] POULIOT, MARTIN, CH  
[71] SYNGENTA CROP PROTECTION AG, CH  
[85] 2023-11-20  
[86] 2022-05-24 (PCT/EP2022/064094)  
[87] (WO2022/253645)  
[30] IN (202111024417) 2021-06-01  
[30] EP (21202529.0) 2021-10-13

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[21] **3,219,745**  
[13] A1

[51] **Int.Cl. G06T 15/04 (2011.01) G06T 7/70 (2017.01) G06T 7/73 (2017.01) G06N 20/00 (2019.01) G06V 10/764 (2022.01)**  
[25] EN  
[54] **TEXTURE MAPPING TO POLYGONAL MODELS FOR INDUSTRIAL INSPECTIONS**  
[54] **MAPPAGE DE TEXTURE SUR DES MODELES POLYGONAUX POUR INSPECTIONS INDUSTRIELLES**  
[72] PICKARD, JOSHUA, CA  
[71] EIGEN INNOVATIONS INC., CA  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/CA2022/050815)  
[87] (WO2022/241574)  
[30] US (63/191,167) 2021-05-20

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[21] **3,219,746**  
[13] A1

[25] EN  
[54] **A SNUS CONTAINER, A METHOD OF MANUFACTURING A SNUS CONTAINER AND A MOULD**  
[54] **RECIPIENT DE SNUS, PROCEDE DE FABRICATION DE RECIPIENT DE SNUS ET MOULE**  
[72] TOMMY, ASTERHED, SE  
[71] SAVJO PLASTIC AB, SE  
[85] 2023-11-20  
[86] 2022-04-07 (PCT/EP2022/059255)  
[87] (WO2022/263038)  
[30] SE (2150763-7) 2021-06-14

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[21] **3,219,747**  
[13] A1

[51] **Int.Cl. A61J 1/06 (2006.01) A61M 5/00 (2006.01) A61M 5/28 (2006.01) A61M 5/31 (2006.01) A61M 5/315 (2006.01)**  
[25] EN  
[54] **SYRINGE SEALING**  
[54] **CORPS D'ETANCHEITE POUR SERINGUE**  
[72] YAMASHITA, SHOGO, JP  
[72] HORITA, TAIJI, JP  
[72] SONOYAMA, TOMOYUKI, JP  
[72] YOSHINAGA, KEISUKE, JP  
[71] KORTUC JAPAN LLC, JP  
[71] TAISEI KAKO CO., LTD., JP  
[85] 2023-11-20  
[86] 2023-03-30 (PCT/JP2023/013242)  
[87] (WO2023/190896)  
[30] JP (2022-060385) 2022-03-31



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[21] **3,219,748**  
[13] A1

[51] **Int.Cl. A61M 16/16 (2006.01)**  
[25] EN  
[54] **INLINE MUFFLER AND POSITIVE AIRWAY PRESSURE THERAPY APPARATUS INCLUDING SAME**  
[54] **SILENCIEUX EN LIGNE ET APPAREIL THERAPEUTIQUE A PRESSION POSITIVE DES VOIES RESPIRATOIRES LE COMPRENANT**  
[72] WILLIAMS, PAUL RAYMOND JR., US  
[71] SOMNETICS INTERNATIONAL, INC., US  
[85] 2023-11-20  
[86] 2022-06-02 (PCT/US2022/031948)  
[87] (WO2023/283001)  
[30] US (63/219,963) 2021-07-09

[21] **3,219,749**  
[13] A1

[51] **Int.Cl. G06N 10/20 (2022.01) G06N 10/40 (2022.01) G06N 10/60 (2022.01) G06N 20/10 (2019.01) G06N 5/02 (2023.01)**  
[25] EN  
[54] **METHODS AND SYSTEMS FOR MEASURING A SIMILARITY BETWEEN TWO GRAPHS**  
[54] **PROCEDES ET SYSTEMES DE MESURE D'UNE SIMILARITE ENTRE DEUX GRAPHES**  
[72] HENRIET, LOIC, FR  
[72] HENRY, LOUIS-PAUL, FR  
[72] DALYAC, CONSTANTIN, FR  
[72] THABET, SLIMANE, FR  
[71] PASQAL, FR  
[85] 2023-11-20  
[86] 2022-07-07 (PCT/EP2022/069010)  
[87] (WO2023/281029)  
[30] EP (21305938.9) 2021-07-07

[21] **3,219,750**  
[13] A1

[51] **Int.Cl. A61P 1/14 (2006.01) C07C 69/73 (2006.01) A61K 45/06 (2006.01)**  
[25] EN  
[54] **CALEBIN-A FOR THERMOGENESIS AND DYSBIOISIS**  
[54] **CALEBINE A POUR LA THERMOGENESE ET LA DYSBIOSE**  
[72] MAJEED, MUHAMMED, IN  
[72] NAGABHUSHANAM, KALYANAM, US  
[72] MUNDKUR, LAKSHMI, IN  
[71] MAJEED, MUHAMMED, IN  
[71] NAGABHUSHANAM, KALYANAM, US  
[71] MUNDKUR, LAKSHMI, IN  
[85] 2023-11-20  
[86] 2022-06-22 (PCT/US2022/034516)  
[87] (WO2022/271817)

[21] **3,219,751**  
[13] A1

[51] **Int.Cl. C07C 67/10 (2006.01) C07C 69/73 (2006.01) C07C 69/618 (2006.01)**  
[25] EN  
[54] **PROCESS FOR THE SYNTHESIS OF CALEBIN-A AND ITS INTERMEDIATES**  
[54] **PROCEDE DE SYNTHESE DE CALEBINE A ET SES INTERMEDIAIRES**  
[72] MAJEED, MUHAMMED, IN  
[72] MUTHUKAMAN, NAGARAJAN, IN  
[72] NAIDU, PENTAKOTA PARADESI, IN  
[72] NAGABHUSHANAM, KALYANAM, US  
[71] MAJEED, MUHAMMED, IN  
[71] MUTHUKAMAN, NAGARAJAN, IN  
[71] NAIDU, PENTAKOTA PARADESI, IN  
[71] NAGABHUSHANAM, KALYANAM, US  
[85] 2023-11-20  
[86] 2022-05-26 (PCT/US2022/031106)  
[87] (WO2022/251476)  
[30] US (63/194,465) 2021-05-28

[21] **3,219,752**  
[13] A1

[51] **Int.Cl. H01M 4/13 (2010.01) H01M 4/139 (2010.01) H01M 10/0525 (2010.01)**  
[25] EN  
[54] **LITHIUM METAL ANODE ASSEMBLIES AND AN APPARATUS AND METHOD OF MAKING SAME**  
[54] **ENSEMBLES ANODE AU LITHIUM METALLIQUE ET APPAREIL ET LEUR PROCEDE DE FABRICATION**  
[72] JASTRZEBSKI, MACIEJ URBAN, CA  
[72] JOHNSTON, TIMOTHY GEORGE, CA  
[71] LI-METAL CORP., CA  
[85] 2023-11-20  
[86] 2022-04-15 (PCT/CA2022/050589)  
[87] (WO2022/241538)  
[30] US (63/190,738) 2021-05-19  
[30] US (63/222,857) 2021-07-16  
[30] CA (PCT/CA2021/051454) 2021-10-16

[21] **3,219,753**  
[13] A1

[51] **Int.Cl. C12Q 1/6855 (2018.01) C12Q 1/6886 (2018.01) G16B 20/20 (2019.01) G16B 20/50 (2019.01) G16H 10/40 (2018.01) G16H 50/70 (2018.01) G16B 30/10 (2019.01)**  
[25] EN  
[54] **METHODS AND COMPOSITIONS FOR DETECTING CANCER USING FRAGMENTOMICS**  
[54] **PROCEDES ET COMPOSITIONS POUR LA DETECTION DU CANCER A L'AIDE DE LA FRAGMENTOMIQUE**  
[72] KRUGLYAK, KRISTINA, US  
[72] MARASS, FRANCESCO, US  
[72] TSUI, WAI YI, US  
[71] PETDX, INC., US  
[85] 2023-11-20  
[86] 2022-05-20 (PCT/US2022/030301)  
[87] (WO2022/246232)  
[30] US (63/202,006) 2021-05-21

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[21] **3,219,754**  
[13] A1

[25] EN  
[54] **MICROWAVE TREATMENT OF TISSUE**  
[54] **TRAITEMENT PAR MICRO-ONDES DE TISSU**  
[72] BEALE, GARY, GB  
[72] MCERLEAN, EAMON, GB  
[72] JOSHI, SHAILESH, GB  
[72] KIDD, MATTHEW, GB  
[71] EMBLATION LIMITED, GB  
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[87] (WO2022/243702)  
[30] US (63/191,463) 2021-05-21

[21] **3,219,755**  
[13] A1

[51] **Int.Cl. C12N 15/113 (2010.01)**  
[25] EN  
[54] **IMPROVED CHIMERIC AND ENGINEERED SCAFFOLDS AND CLUSTERS OF MULTIPLEXED INHIBITORY RNA**  
[54] **ECHAFAUDAGES CHIMERIQUES D'INGENIERIE AMELIORES ET AGREGATS D'ARN INHIBITEUR MULTIPLEXES**  
[72] BREMAN, EYTAN, BE  
[72] STEKLOV, MIKHAIL, BE  
[72] ROSSI, MATTEO, BE  
[71] CELYAD ONCOLOGY S.A., BE  
[85] 2023-10-20  
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[87] (WO2022/233982)  
[30] GB (2106354.0) 2021-05-04

[21] **3,219,756**  
[13] A1

[51] **Int.Cl. E21B 47/022 (2012.01) E21B 47/0228 (2012.01) E21B 7/04 (2006.01) E21B 47/024 (2006.01) G01V 3/26 (2006.01)**  
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[54] **A DOWNHOLE ASSEMBLY WITH PNEUMATIC ISOLATION**  
[54] **ENSEMBLE DE FOND DE TROU A ISOLATION PNEUMATIQUE**  
[72] KUCKES, ARTHUR F., US  
[72] THOMPSON, MORGAN, US  
[71] VECTOR MAGNETICS LLC, US  
[85] 2023-10-20  
[86] 2021-04-29 (PCT/US2021/029934)  
[87] (WO2022/231596)

[21] **3,219,757**  
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[51] **Int.Cl. H01H 77/10 (2006.01) H02H 3/16 (2006.01) H01H 83/02 (2006.01) H01H 83/04 (2006.01) H02H 3/40 (2006.01)**  
[25] EN  
[54] **GROUND FAULT CIRCUIT INTERRUPTER WITH INTEGRATED CONTROLLER**  
[54] **INTERRUPTEUR DE CIRCUIT DE DEFAUT DE MISE A LA TERRE AVEC DISPOSITIF DE COMMANDE INTEGRE**  
[72] BROWER, JOHN E., US  
[72] MUSSON, JAMES CASEY, US  
[72] MILLER, WILLIAM VERNON, US  
[72] MEADY, JOSEPH MICHAEL, US  
[72] DUPUIS, JOSEPH EDGAR, US  
[72] CHIA, BRIAN S., US  
[71] HUBBELL INCORPORATED, US  
[71] BROWER, JOHN E., US  
[71] MUSSON, JAMES CASEY, US  
[71] MILLER, WILLIAM VERNON, US  
[71] MEADY, JOSEPH MICHAEL, US  
[71] DUPUIS, JOSEPH EDGAR, US  
[71] CHIA, BRIAN S., US  
[85] 2023-10-20  
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[87] (WO2022/226047)  
[30] US (63/177,151) 2021-04-20

[21] **3,219,758**  
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[51] **Int.Cl. B32B 38/00 (2006.01)**  
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[54] **CRAZING RESISTANT CAN END STOCK**  
[54] **TOLE POUR EXTREMITES DE CANETTES RESISTANT A LA FISSURATION**  
[72] HEINEMANN, MICHAEL, US  
[72] PAPE, JAN-TOBIAS, US  
[72] TUSSING, CHRISTIAN, US  
[72] RUPARELIA, DHIREN BHUPATIAL, US  
[72] SCHROEDER, CORNELIA, US  
[72] CAMPBELL, IAN MUSSON, US  
[72] PALATZ, RICHARD, US  
[71] NOVELIS INC., US  
[85] 2023-10-20  
[86] 2022-04-13 (PCT/US2022/071694)  
[87] (WO2022/226469)  
[30] US (63/178,313) 2021-04-22

[21] **3,219,759**  
[13] A1

[51] **Int.Cl. A61F 2/12 (2006.01) A61F 2/00 (2006.01) A61L 27/14 (2006.01)**  
[25] EN  
[54] **NIPPLE RECONSTRUCTION IMPLANT**  
[54] **IMPLANT DE RECONSTRUCTION DE MAMELON**  
[72] LIMEM, SKANDER, US  
[72] SARIIBRAHIMOGLU, KEMAL, US  
[72] SCOTT, JEFFREY ROBERT (DECEASED), US  
[72] WILLIAMS, SIMON F., US  
[72] SPECTOR, JASON, US  
[71] TEPHA, INC., US  
[71] CORNELL UNIVERSITY, US  
[85] 2023-11-09  
[86] 2022-05-09 (PCT/US2022/028313)  
[87] (WO2022/240739)  
[30] US (63/187,010) 2021-05-11

[21] **3,219,760**  
[13] A1

[51] **Int.Cl. A61K 31/167 (2006.01) A61K 31/18 (2006.01) A61K 31/337 (2006.01)**  
[25] EN  
[54] **VENETOCLAX DOSING REGIMENS FOR USE IN TREATING MYELODYSPLASTIC SYNDROMES IN COMBINATION WITH AZACITIDINE**  
[54] **SCHEMAS POSOLOGIQUES DE VENETOCLAX DESTINES A ETRE UTILISES DANS LE TRAITEMENT DE SYNDROMES MYELODYSPLASIQUES EN COMBINAISON AVEC DE L'AZACITIDINE**  
[72] HAYSLIP, JOHN, US  
[72] KYE, STEVE H., US  
[72] AINSWORTH, WILLIAM B., US  
[71] ABBVIE INC., US  
[85] 2023-11-09  
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[87] (WO2022/240786)  
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[25] EN	[25] EN	[25] EN
[54] <b>VENETOCLAX DOSING REGIMENS FOR USE IN TREATING MYELODYSPLASTIC SYNDROMES IN COMBINATION WITH A CYP3A INHIBITOR AND AZACITIDINE</b>	[54] <b>WIRE-FREE PUSH-UP BRASSIERE WITH HINGE FOR IMPROVED SUPPORT AND FLEXIBILITY</b>	[54] <b>IMPLANTABLE FIBERS, YARNS AND TEXTILES</b>
[54] <b>SCHEMAS POSOLOGIQUES DE VENETOCLAX DESTINES A ETRE UTILISES DANS LE TRAITEMENT DE SYNDROMES MYELODYSPLASIAQUES EN ASSOCIATION AVEC UN INHIBITEUR CYP3A ET DE L'AZACITIDINE</b>	[54] <b>SOUTIEN-GORGE PIGEONNANT SANS FIL DOTE D'UNE CHARNIERE POUR UN SOUTIEN ET UNE SOUPLESSE AMELIORES</b>	[54] <b>FIBRES, FILS ET TEXTILES IMPLANTABLES</b>
[72] HAYSLIP, JOHN, US	[72] LACAMBRA, VINCE, US	[72] DESAI, SHROJALKUMAR M., US
[72] KYE, STEVE H., US	[72] MUNOZ-GUZMAN, ELIZABETH, US	[72] OBA, TRAVIS ZENYO, US
[72] SALEM, AHMED, US	[71] TORRID LLC, US	[72] SHAFIGH, SAM, US
[72] ZHA, JIUHONG, US	[85] 2023-11-09	[72] CHAU, MARK, US
[71] ABBVIE INC., US	[86] 2022-05-10 (PCT/US2022/028630)	[72] RABBAH, JEAN-PIERRE MICHEL, US
[85] 2023-11-09	[87] (WO2022/240904)	[72] KAYE, PAUL, IL
[86] 2022-05-10 (PCT/US2022/028434)	[30] US (63/186,647) 2021-05-10	[72] NAWALAKHE, RUPESH GAJANAN, US
[87] (WO2022/240788)		[72] VAID, RADHIKA, US
[30] US (63/201,743) 2021-05-11	[21] <b>3,219,764</b> [13] A1	[72] PAWAR, SANDIP VASANT, US
	[51] <b>Int.Cl. F24S 25/60 (2018.01) H02S 20/23 (2014.01) F24S 25/61 (2018.01)</b>	[72] ARMSTRONG, GILLIAN IRENE, US
	[25] EN	[72] TKATCHOUK, EKATERINA, US
	[54] <b>PHOTOVOLTAIC MOUNT ASSEMBLY FOR A COMPOSITION SHINGLE ROOF</b>	[71] EDWARDS LIFESCIENCES CORPORATION, US
	[54] <b>ENSEMBLE DE MONTAGE PHOTOVOLTAIQUE POUR TOIT EN BARDEAUX COMPOSES</b>	[85] 2023-11-09
	[72] MENTON, DUANE, US	[86] 2022-05-13 (PCT/US2022/029215)
	[72] MORANO, ALEXANDER, US	[87] (WO2022/245657)
	[72] JUSTICE, ANUMEHA, US	[30] US (63/190,198) 2021-05-18
	[72] PEDLAR, ROGER, US	
	[72] HUDSON, JOHN, US	[21] <b>3,219,767</b> [13] A1
	[72] ASH, JON, US	[51] <b>Int.Cl. A61K 47/55 (2017.01) C12N 15/85 (2006.01)</b>
	[71] ECOFASTEN SOLAR, LLC, US	[25] EN
	[85] 2023-11-09	[54] <b>COMPOSITIONS AND METHODS FOR TREATING TRANSTHYRETIN AMYLOIDOSIS</b>
	[86] 2022-05-10 (PCT/US2022/028636)	[54] <b>COMPOSITIONS ET METHODES DE TRAITEMENT DE L'AMYLOSE A TRANSTHYRETINE</b>
	[87] (WO2022/240909)	[72] PACKER, MICHAEL, US
	[30] US (63/186,534) 2021-05-10	[72] CHENG, LO-I, US
[21] <b>3,219,762</b> [13] A1		[72] BOHNUUD, TANGGIS, US
[51] <b>Int.Cl. A61K 9/00 (2006.01) A61K 9/24 (2006.01) A61K 31/137 (2006.01) A61K 31/4458 (2006.01) A61P 25/00 (2006.01) A61P 25/14 (2006.01)</b>		[71] BEAM THERAPEUTICS INC., US
[25] EN		[85] 2023-11-09
[54] <b>TRIMODAL, PRECISION-TIMED PULSATILE RELEASE TABLET</b>		[86] 2022-05-13 (PCT/US2022/029278)
[54] <b>COMPRIME A LIBERATION PULSATILE, TEMPORISEE, TRIMODALE</b>		[87] (WO2022/241270)
[72] BRAMS, MATTHEW, US		[30] US (63/189,060) 2021-05-14
[72] SILVA, RAUL, US		
[72] STRAUGHN, ARTHUR, US		
[71] CINGULATE THERAPEUTICS LLC, US		
[85] 2023-11-09		
[86] 2022-05-10 (PCT/US2022/028550)		
[87] (WO2022/240849)		
[30] US (63/187,037) 2021-05-11		

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[51] **Int.Cl. A61K 36/8905 (2006.01) A61K 36/21 (2006.01) A61K 36/232 (2006.01) A61K 36/328 (2006.01) A61K 36/481 (2006.01) A61K 36/486 (2006.01) A61K 36/54 (2006.01) A61K 36/714 (2006.01) A61K 36/716 (2006.01) A61K 36/804 (2006.01) A61P 29/00 (2006.01)**

[25] EN

[54] **PHARMACEUTICAL COMPOSITION FOR TREATING RHEUMATOID ARTHRITIS AND PREPARATION METHOD THEREFOR**

[54] **COMPOSITION PHARMACEUTIQUE POUR LE TRAITEMENT DE LA POLYARTHRITE RHUMATOIDE ET SON PROCEDE DE PREPARATION**

[72] JIA, ZHENHUA, CN

[71] HEBEI YILING MEDICINE RESEARCH INSTITUTE CO., LTD., CN

[85] 2023-11-09

[86] 2022-05-11 (PCT/CN2022/092264)

[87] (WO2022/237842)

[30] CN (202110513825.3) 2021-05-12

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[13] A1

[51] **Int.Cl. B05B 1/08 (2006.01) B60S 1/52 (2006.01)**

[25] EN

[54] **PULSATING SPRAY CLEANING NOZZLE ASSEMBLY AND METHOD**

[54] **ENSEMBLE BUSE DE NETTOYAGE PAR PULVERISATION PULSATOIRE ET PROCEDE**

[72] ZHAO, CHUNLING, US

[72] DEORA, AAKASH, US

[71] DLHBOWLES, INC., US

[85] 2023-11-09

[86] 2022-07-06 (PCT/US2022/036218)

[87] (WO2023/283238)

[30] US (63/218,608) 2021-07-06

[30] US (63/220,729) 2021-07-12

[30] US (63/232,234) 2021-08-12

[21] **3,219,770**  
[13] A1

[51] **Int.Cl. A61B 1/00 (2006.01) A61B 1/307 (2006.01)**

[25] EN

[54] **AUGMENTED REALITY URETEROSCOPE SYSTEM**

[54] **SYSTEME D'URETEROSCOPE A REALITE AUGMENTEE**

[72] CHENG, JASON JISHEN, US

[72] TAN-FAHED, BRENDAN, US

[72] SANGIORGIO, JOHN D., US

[72] YANG, WANFEL, US

[72] HESS, PAUL R., US

[71] C. R. BARD, INC., US

[85] 2023-11-09

[86] 2022-06-03 (PCT/US2022/032131)

[87] (WO2022/256632)

[30] US (63/197,142) 2021-06-04

[21] **3,219,774**  
[13] A1

[51] **Int.Cl. A61K 33/18 (2006.01) A61K 9/00 (2006.01) A61K 31/79 (2006.01) A61K 47/36 (2006.01) A61K 47/38 (2006.01) A61P 31/00 (2006.01)**

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[54] **NASAL ANTISEPTIC**

[54] **ANTISEPTIQUE NASAL**

[72] PARVIZI, JAVAD, US

[72] YAYAC, MICHAEL, US

[72] CHISARI, EMANUELE, US

[72] BRITAIN, HARRY, US

[72] CHO, JEONGEUN, US

[72] PARMAR, MAYANK, US

[71] POVINEZ LLC, US

[85] 2023-11-09

[86] 2022-05-18 (PCT/US2022/029858)

[87] (WO2022/245963)

[30] US (63/190,041) 2021-05-18

[21] **3,219,775**  
[13] A1

[51] **Int.Cl. C10G 17/02 (2006.01) C10G 29/20 (2006.01) C10G 31/08 (2006.01)**

[25] EN

[54] **ORGANIC ACID SURFACTANT BOOSTER FOR CONTAMINANT REMOVAL**

[54] **RENFORCATEUR DE TENSIOACTIF A BASE D'ACIDE ORGANIQUE DESTINE A L'ELIMINATION DE CONTAMINANTS**

[72] HANAK, VINCENT ANDREW, US

[72] KISER, CHAD, US

[72] SAULNIER, RICHARD, US

[72] BOSCH, RONALD, US

[72] ANDERSON, GEORGE, US

[71] HALLIBURTON ENERGY SERVICES, INC., US

[85] 2023-11-09

[86] 2022-09-08 (PCT/US2022/042898)

[87] (WO2023/043654)

[30] US (63/244,621) 2021-09-15

[30] US (17/902,114) 2022-09-02

[21] **3,219,778**  
[13] A1

[51] **Int.Cl. A42B 3/06 (2006.01) A42B 3/14 (2006.01)**

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[54] **HELMET**

[54] **CASQUE**

[72] WIKNER, JAKOB, SE

[71] MIPS AB, SE

[85] 2023-11-09

[86] 2022-05-25 (PCT/EP2022/064322)

[87] (WO2022/248616)

[30] GB (2107475.2) 2021-05-26

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[13] A1

[51] **Int.Cl. B65D 51/24 (2006.01) A61J 1/00 (2023.01) A61J 1/03 (2023.01) A61J 3/06 (2006.01) B65D 25/02 (2006.01) B65D 41/04 (2006.01) B65D 41/06 (2006.01)**

[25] EN

[54] **CAP ASSEMBLY FOR REUSABLE MEDICINE CONTAINER, AND USES THEREOF**

[54] **ENSEMBLE CAPUCHON POUR RECIPIENT DE MEDICAMENT REUTILISABLE, ET UTILISATIONS DE CELUI-CI**

[72] GONG, RUSSELL ELIOT, US  
[72] PATEL, ACHAL APURVA, US  
[71] CABINET HEALTH P.B.C., US  
[85] 2023-11-09  
[86] 2022-05-09 (PCT/US2022/072216)  
[87] (WO2022/241407)  
[30] US (63/187,826) 2021-05-12

[21] **3,219,780**  
[13] A1

[51] **Int.Cl. E21B 36/00 (2006.01)**

[25] EN

[54] **HEATING A FORMATION OF THE EARTH WHILE DRILLING A WELLBORE**

[54] **CHAUFFAGE D'UNE FORMATION DE LA TERRE PENDANT LE FORAGE D'UN Puits DE FORAGE**

[72] AL-HUWAIDER, MUSTAFA A., SA  
[72] MA, SHOUXIANG MARK, SA  
[71] SAUDI ARABIAN OIL COMPANY, SA  
[85] 2023-11-09  
[86] 2022-05-11 (PCT/US2022/072254)  
[87] (WO2022/241435)  
[30] US (17/317,556) 2021-05-11

[21] **3,219,781**  
[13] A1

[51] **Int.Cl. A61P 27/06 (2006.01) C07D 405/12 (2006.01)**

[25] EN

[54] **METHODS FOR REDUCING INTRAOCULAR PRESSURE**

[54] **PROCEDES DE REDUCTION DE LA PRESSION INTRAOCULAIRE**

[72] DUDHIPALA, NARENDAR, US  
[72] MAJUMDAR, SOUMYAJIT, US  
[72] ELSOHLY, MAHMOUD A., US  
[72] GUL, WASEEM, US  
[71] UNIVERSITY OF MISSISSIPPI, US  
[71] DUDHIPALA, NARENDAR, US  
[85] 2023-11-09  
[86] 2022-05-12 (PCT/US2022/072287)  
[87] (WO2022/241456)  
[30] US (63/187,472) 2021-05-12

[21] **3,219,782**  
[13] A1

[51] **Int.Cl. C12N 1/20 (2006.01) A61K 35/00 (2006.01) A61K 35/74 (2015.01) A61P 1/00 (2006.01) A61P 1/04 (2006.01) A61P 29/00 (2006.01) A61P 37/00 (2006.01)**

[25] EN

[54] **COMPOSITIONS AND METHODS FOR TREATING DISEASE**

[54] **COMPOSES ET METHODES DE TRAITEMENT DE MALADIES**

[72] O CUIV, PARAIC, AU  
[72] KRAUSE, LUTZ, AU  
[71] MICROBA IP PTY LTD, AU  
[85] 2023-11-10  
[86] 2022-05-10 (PCT/AU2022/050442)  
[87] (WO2022/236365)  
[30] AU (2021901387) 2021-05-10  
[30] AU (2022901200) 2022-05-06

[21] **3,219,783**  
[13] A1

[51] **Int.Cl. A42B 3/06 (2006.01) A42B 3/10 (2006.01) A42B 3/14 (2006.01)**

[25] EN

[54] **HELMET AND DEVICE FOR HELMET**

[54] **CASQUE ET DISPOSITIF POUR CASQUE**

[72] WIKNER, JAKOB, SE  
[71] MIPS AB, SE  
[85] 2023-11-09  
[86] 2022-05-25 (PCT/EP2022/064326)  
[87] (WO2022/248619)  
[30] GB (2107474.5) 2021-05-26

[21] **3,219,784**  
[13] A1

[51] **Int.Cl. C07D 413/06 (2006.01)**

[25] EN

[54] **METHODS OF MAKING A MODULATOR OF HEMOGLOBIN**

[54] **PROCEDES DE FABRICATION D'UN MODULATEUR D'HEMOGLOBINE**

[72] WANG, XIANG, US  
[72] FUJIMORI, SHINJI, US  
[72] NELSON, TODD DANIEL, US  
[72] PARRA RIVERA, ANA CRISTINA, US  
[72] MUNDAL, DEVON, US  
[72] GRAETZ, BENJAMIN, US  
[72] FRICK, MORIN, US  
[71] GLOBAL BLOOD THERAPEUTICS, INC., US  
[85] 2023-11-09  
[86] 2022-05-13 (PCT/US2022/029304)  
[87] (WO2022/241286)  
[30] US (63/188,735) 2021-05-14

[21] **3,219,785**  
[13] A1

[51] **Int.Cl. C25B 1/00 (2021.01) C25B 1/55 (2021.01) C25B 9/73 (2021.01) C07F 11/00 (2006.01) C07F 15/02 (2006.01) C07F 15/04 (2006.01) C25B 1/04 (2021.01)**

[25] EN

[54] **ELECTROCHEMICAL REDUCTION OF CARBON DIOXIDE CATALYZED BY POLYOXOMETALATES**

[54] **REDUCTION ELECTROCHIMIQUE DE DIOXYDE DE CARBONE CATALYSE PAR DES POLYOXOMETALATES**

[72] NEUMANN, RONNY, IL  
[72] DABBAH-AZAIZA, DIMA, IL  
[72] ROSENMAN, ARIEL, IL  
[72] TZAGUY, AVRA, IL  
[71] YEDA RESEARCH AND DEVELOPMENT CO. LTD., IL  
[85] 2023-11-09  
[86] 2022-05-25 (PCT/IL2022/050551)  
[87] (WO2022/249178)  
[30] IL (283483) 2021-05-26

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[21] **3,219,786**  
[13] A1

[51] **Int.Cl. C07D 413/06 (2006.01) A61K 31/5377 (2006.01) A61P 7/06 (2006.01)**

[25] EN

[54] **SOLID FORMS OF A MODULATOR OF HEMOGLOBIN**

[54] **FORMES SOLIDES D'UN MODULATEUR D'HEMOGLOBINE**

[72] PARENT, STEPHAN D., US

[72] HOUSTON, TRAVIS LEE, US

[72] JOHNSON, COURTNEY S., US

[72] WANG, FANG, US

[71] GLOBAL BLOOD THERAPEUTICS, INC., US

[85] 2023-11-09

[86] 2022-05-13 (PCT/US2022/029289)

[87] (WO2022/241278)

[30] US (63/188,833) 2021-05-14

[21] **3,219,788**  
[13] A1

[51] **Int.Cl. B62D 55/32 (2006.01) B65G 23/00 (2006.01) F16B 5/02 (2006.01) F16G 13/06 (2006.01)**

[25] EN

[54] **SYSTEMS AND METHODS FOR REPAIRING CHAINS**

[54] **SYSTEMES ET PROCEDES POUR LA REPARATION DE CHAINES**

[72] VENTO, JOSEPH LEO, US

[72] WOODS, DAVID RICHARD, US

[72] JANSSON, KYLE STEVEN, US

[71] REXNORD INDUSTRIES, LLC, US

[85] 2023-11-09

[86] 2022-05-06 (PCT/US2022/028030)

[87] (WO2022/240672)

[30] US (17/320,515) 2021-05-14

[21] **3,219,789**  
[13] A1

[51] **Int.Cl. E21B 34/10 (2006.01) E21B 47/008 (2012.01) E21B 47/125 (2012.01) E21B 41/00 (2006.01)**

[25] EN

[54] **SURFACE DEPLOYED ANNULAR SAFETY VALVE**

[54] **SOUPAPE DE SECURITE ANNULAIRE A SURFACE DEPLOYEE**

[72] NEWTON, DANIEL, US

[71] HALLIBURTON ENERGY SERVICES, INC., US

[85] 2023-11-09

[86] 2021-08-24 (PCT/US2021/047322)

[87] (WO2023/014383)

[30] US (17/392,765) 2021-08-03

[21] **3,219,790**  
[13] A1

[51] **Int.Cl. A61B 17/04 (2006.01) A61B 17/06 (2006.01) A61B 17/064 (2006.01) A61B 17/068 (2006.01) A61B 17/122 (2006.01) A61B 17/32 (2006.01) A61F 2/24 (2006.01) A61M 25/00 (2006.01) A61B 17/00 (2006.01)**

[25] EN

[54] **TRANSCATHETER DEVICES FOR REPAIRING A LEAFLET OF A HEART VALVE OF A SUBJECT**

[54] **DISPOSITIFS TRANSCATHETERS POUR REPARER UN FEUILLET D'UNE VALVE CARDIAQUE D'UN SUJET**

[72] GUERRERO, MAURICIO, US

[72] MURPHY, BRIAN PATRICK, US

[72] OBA, TRAVIS ZENYO, US

[72] SHAFIGH, SAM, US

[72] CHAU, MARK, US

[72] GANTZ, KEVIN, US

[72] FRANCIS, MEENA, US

[72] KAZALBASH, MURRAD MIRZA, US

[71] EDWARDS LIFESCIENCES CORPORATION, US

[85] 2023-11-09

[86] 2022-05-13 (PCT/US2022/029219)

[87] (WO2022/250983)

[30] US (63/192,829) 2021-05-25

[30] US (63/285,948) 2021-12-03

[30] US (63/311,919) 2022-02-18

[21] **3,219,792**  
[13] A1

[51] **Int.Cl. C09K 8/74 (2006.01) C09K 8/52 (2006.01) C09K 8/536 (2006.01) E21B 43/22 (2006.01) E21B 43/26 (2006.01)**

[25] EN

[54] **COLLOIDAL GAS APHRON-CONTAINING ACID BASED MATRIX ACIDIZING OR FRACTURE ACIDIZING FLUID, AND METHODS OF STIMULATING HYDROCARBONS IN A SUBTERRANEAN FORMATION THEREWITH**

[54] **FLUIDE D'ACIDIFICATION DE MATRICE OU D'ACIDIFICATION DE FRACTURE A BASE D'ACIDE CONTENANT DES APHRONS DE GAZ COLLOIDAL, ET PROCEDES DE STIMULATION AVEC CELUI-CI D'HYDROCARBURES DANS UNE FORMATION SOUTERRAINE**

[72] MIRZAEI, AMIR A., CA

[72] RAD, HIRBOD, CA

[71] UNIQUEM INC., CA

[85] 2023-11-10

[86] 2021-05-11 (PCT/CA2021/050655)

[87] (WO2022/236395)

[21] **3,219,793**  
[13] A1

[51] **Int.Cl. H04N 5/222 (2006.01) H04N 21/2187 (2011.01) H04N 7/14 (2006.01) H04N 7/15 (2006.01) H04N 7/18 (2006.01)**

[25] EN

[54] **SYSTEMS AND METHODS OF REMOTE VIDEO PRODUCTION, AND APPARATUS THEREFOR**

[54] **SYSTEMES ET PROCEDES DE PRODUCTION DE VIDEO A DISTANCE, ET APPAREIL ASSOCIE**

[72] ROSENSWEIG, IRA, US

[72] STERLING, DALLAS, US

[72] FERNSLER, JEREMY, US

[71] WAVEMAKER CREATIVE, INC., US

[85] 2023-11-09

[86] 2021-05-12 (PCT/US2021/032042)

[87] (WO2021/231610)

[30] US (63/023,555) 2020-05-12

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[21] 3,219,794 [13] A1	[21] 3,219,796 [13] A1	[21] 3,219,799 [13] A1
<p>[51] <b>Int.Cl. A61K 35/66 (2015.01)</b> [25] EN [54] <b>METHODS OF TREATING OR PREVENTING ALLERGIES AND CHRONIC NASAL CONGESTION</b> [54] <b>METHODES DE TRAITEMENT OU DE PREVENTION D'ALLERGIES ET D'UNE CONGESTION NASALE CHRONIQUE</b> [72] ROLKE, JAMES M., US [72] MARSDEN, ROBIN L., US [72] LYNCH, SHANNAN J., US [72] STEPHENS, JACKSON R., US [72] NINOSKY, JOSEPH M., US [71] REVELATION BIOSCIENCES, INC., US [85] 2023-11-21 [86] 2022-05-26 (PCT/US2022/031075) [87] (WO2022/251455) [30] US (63/193,952) 2021-05-27</p>	<p>[51] <b>Int.Cl. B60N 2/005 (2006.01) B60N 2/75 (2018.01) B60N 2/90 (2018.01) B60N 2/01 (2006.01) B60N 2/24 (2006.01) B64D 11/06 (2006.01)</b> [25] EN [54] <b>VEHICLE PASSENGER SEAT ASSEMBLY</b> [54] <b>ENSEMBLE SIEGE PASSAGER DE VEHICULE</b> [72] RHEAUME, MICHEL, CA [71] MHI RJ AVIATION ULC, CA [85] 2023-11-10 [86] 2022-01-20 (PCT/CA2022/050080) [87] (WO2022/236398) [30] US (63/187,247) 2021-05-11</p>	<p>[51] <b>Int.Cl. C07D 487/04 (2006.01) A61K 31/519 (2006.01) A61P 35/00 (2006.01)</b> [25] EN [54] <b>TRIAZOLO-PYRIMIDINE ANALOGUES FOR TREATING DISEASES CONNECTED TO THE INHIBITION OF WERNER SYNDROME RECQ HELICASE (WRN)</b> [54] <b>ANALOGUES DE TRIAZOLO-PYRIMIDINE POUR LE TRAITEMENT DE MALADIES LIEES A L'INHIBITION DE L'HELICASE RECQ DU SYNDROME DE WERNER (WRN)</b> [72] BORDAS, VINCENT, CH [72] BRUN, JVAN, CH [72] DECKER, ANDREA, CH [72] FUREGATI, MARKUS, CH [72] GOGNIAT, GEOFFREY, CH [72] GONG, WANBEN, CN [72] HAMON, JACQUES, CH [72] HINRICHS, JUERGEN HANS-HERMANN, CH [72] HOLZER, PHILIPP, CH [72] LIMAM, FATMA, CH [72] MOEBITZ, HENRIK, CH [72] NOCITO, SANDRO, CH [72] PLATTNER, SIMONE, CH [72] SCHMIEDEBERG, NIKO, CH [72] SCHOEPFER, JOSEPH, CH [72] SOTO, JESSICA, CH [72] STRANG, ROSS, CH [72] YAO, SHUPING, CN [72] YU, HUANGCHAO, CN [72] ZECRI, FREDERIC, US [72] ZHANG, SISI, CN [71] NOVARTIS AG, CH [85] 2023-11-09 [86] 2022-05-24 (PCT/IB2022/054850) [87] (WO2022/249060) [30] CN (PCT/CN2021/096104) 2021-05-26 [30] CN (PCT/CN2022/085537) 2022-04-07</p>
[21] 3,219,795 [13] A1	[21] 3,219,797 [13] A1	
<p>[51] <b>Int.Cl. C12N 15/86 (2006.01) A61K 48/00 (2006.01) C12N 15/861 (2006.01)</b> [25] EN [54] <b>RECOMBINANT TERT-ENCODING VIRAL GENOMES AND VECTORS</b> [54] <b>GENOMES VIRAUX RECOMBINANTS CODANT POUR TERT ET VECTEURS</b> [72] BLASCO, MARIA, ES [72] MARTINEZ, PAULA, ES [72] BOSCH TUBERT, MARIA FATIMA, ES [72] JIMENEZ CENZANO, VERONICA, ES [72] GARCIA MARTINEZ, MIQUEL, ES [72] CASANA LORENTE, ESTEFANIA, ES [71] FUNDACION DEL SECTOR PUBLICO ESTATAL CENTRO NACIONAL DE INVESTIGACIONES ONCOLOGICAS CARLOS III (F.S.P. CNIO), ES [71] UNIVERSITAT AUTONOMA DE BARCELONA, ES [71] TELOMERE THERAPEUTICS SL, ES [85] 2023-11-09 [86] 2022-05-12 (PCT/EP2022/062990) [87] (WO2022/238557) [30] EP (21382441.0) 2021-05-12</p>	<p>[51] <b>Int.Cl. H01L 27/00 (2006.01) B81B 7/02 (2006.01) G02B 6/12 (2006.01) H01P 1/00 (2006.01)</b> [25] EN [54] <b>SEMICONDUCTOR SYSTEM WITH WAVEGUIDE ASSEMBLY WITH RF SIGNAL IMPEDANCE CONTROLLABLE BY APPLIED ELECTROMAGNETIC RADIATION</b> [54] <b>SYSTEME A SEMI-CONDUCTEUR AVEC ENSEMBLE GUIDE D'ONDES A IMPEDANCE DE SIGNAL RF POUVANT ETRE COMMANDE PAR UN RAYONNEMENT ELECTROMAGNETIQUE APPLIQUE</b> [72] JONES, THOMAS, CA [72] PEROULIS, DIMITRIOS, US [72] FISHER, ALDEN, US [72] BARLAGE, DOUGLAS, CA [71] PURDUE RESEARCH FOUNDATION, US [71] THE GOVERNORS OF THE UNIVERSITY OF ALBERTA, CA [85] 2023-11-10 [86] 2022-05-09 (PCT/CA2022/050728) [87] (WO2022/236404) [30] US (63/186,658) 2021-05-10</p>	

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[21] <b>3,219,800</b> [13] A1	[21] <b>3,219,802</b> [13] A1	[21] <b>3,219,807</b> [13] A1
<p>[51] <b>Int.Cl. B29C 53/56 (2006.01) B29D 23/00 (2006.01) B65H 18/22 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>AN APPARATUS FOR MANUFACTURING A PIPE SECTION AND A METHOD FOR MANUFACTURING A PIPE SECTION</b></p> <p>[54] <b>APPAREIL DE FABRICATION D'UNE SECTION DE TUYAU ET PROCEDE DE FABRICATION D'UNE SECTION DE TUYAU</b></p> <p>[72] PESCH, JOHAN HENDRIK THEODOOR MARIE, DK</p> <p>[71] ROCKWOOL A/S, DK</p> <p>[85] 2023-11-10</p> <p>[86] 2022-05-11 (PCT/EP2022/062763)</p> <p>[87] (WO2022/238473)</p> <p>[30] EP (21173461.1) 2021-05-12</p>	<p>[25] EN</p> <p>[54] <b>ARC DETECTION METHOD AND SYSTEM</b></p> <p>[54] <b>PROCEDE ET SYSTEME DE DETECTION D'ARC</b></p> <p>[72] LU, CHENPENG, CN</p> <p>[72] SONG, SHI, CN</p> <p>[71] SUNGROW SMART MAINTENANCE TECHNOLOGY CO., LTD, CN</p> <p>[85] 2023-11-21</p> <p>[86] 2022-07-07 (PCT/CN2022/104316)</p> <p>[87] (WO2023/005633)</p> <p>[30] CN (202110851018.2) 2021-07-27</p>	<p>[51] <b>Int.Cl. H04B 1/40 (2015.01)</b></p> <p>[25] EN</p> <p>[54] <b>MULTIBAND DIGITAL DATA NETWORK INFRASTRUCTURE WITH BROADBAND ANALOG FRONT END</b></p> <p>[54] <b>INFRASTRUCTURE DE RESEAU DE DONNEES NUMERIQUES MULTIBANDE A EXTREMITE AVANT ANALOGIQUE A LARGE BANDE</b></p> <p>[72] THORNTON, DOUGLAS A., US</p> <p>[71] BATTELLE MEMORIAL INSTITUTE, US</p> <p>[85] 2023-11-21</p> <p>[86] 2022-05-24 (PCT/US2022/030638)</p> <p>[87] (WO2022/251152)</p> <p>[30] US (63/192,427) 2021-05-24</p>
[21] <b>3,219,801</b> [13] A1	[21] <b>3,219,803</b> [13] A1	[21] <b>3,219,808</b> [13] A1
<p>[51] <b>Int.Cl. C07D 237/32 (2006.01) A61K 31/502 (2006.01) A61P 25/00 (2006.01) C07D 401/04 (2006.01) C07D 401/14 (2006.01) C07D 403/04 (2006.01) C07D 403/10 (2006.01) C07D 403/14 (2006.01) C07D 405/04 (2006.01) C07D 491/08 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>SUBSTITUTED HETEROBICYCLIC DERIVATIVES AS NEGATIVE ALLOSTERIC MODULATORS OF MGLU7 RECEPTOR</b></p> <p>[54] <b>DERIVES HETEROBICYCLIQUES SUBSTITUES SERVANT DE MODULATEURS ALLOSTERIQUES NEGATIFS DU RECEPTEUR MGLU7</b></p> <p>[72] PAPARIN, JEAN-LAURENT, CH</p> <p>[72] ROCHER, JEAN-PHILIPPE, CH</p> <p>[72] MADER, PATRICK, DE</p> <p>[72] STACH, TANJA, DE</p> <p>[72] DUVEY, GUILLAUME, FR</p> <p>[72] TANG, LAM, CH</p> <p>[71] ADDEX PHARMA S.A., CH</p> <p>[85] 2023-11-10</p> <p>[86] 2022-05-13 (PCT/EP2022/063106)</p> <p>[87] (WO2022/238579)</p> <p>[30] GB (2106871.3) 2021-05-13</p>	<p>[25] EN</p> <p>[54] <b>METHODS AND SYSTEMS FOR DETERMINING PAYMENT BEHAVIOURS</b></p> <p>[54] <b>PROCEDES ET SYSTEMES POUR DETERMINER DES COMPORTEMENTS DE PAIEMENT</b></p> <p>[72] KEMKA, MARTIN, NZ</p> <p>[72] PERMEZEL, DONALD, NZ</p> <p>[71] XERO LIMITED, NZ</p> <p>[85] 2023-11-21</p> <p>[86] 2021-08-25 (PCT/NZ2021/050149)</p> <p>[87] (WO2022/245225)</p> <p>[30] AU (2021901523) 2021-05-21</p>	<p>[51] <b>Int.Cl. A61K 38/45 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>ENGINEERING NEW METABOLIC PATHWAYS IN ISOLATED CELLS FOR THE DEGRADATION OF GUANIDINOACETIC ACID AND SIMULTANEOUS PRODUCTION OF CREATINE</b></p> <p>[54] <b>INGENIERIE DE NOUVELLES VOIES METABOLIQUES DANS DES CELLULES ISOLEES POUR LA DEGRADATION DE L'ACIDE GUANIDINOACETIQUE ET PRODUCTION SIMULTANEE DE CREATINE</b></p> <p>[72] ROSSI, LUIGIA, IT</p> <p>[72] MAMBRINI, GIOVANNI, IT</p> <p>[72] ALIANO, MATTIA PAOLO, IT</p> <p>[72] BIANCHI, MARZIA, IT</p> <p>[72] PIERIGE, FRANCESCA, IT</p> <p>[72] MAGNANI, MAURO, IT</p> <p>[71] ERYDEL S.P.A., IT</p> <p>[85] 2023-11-21</p> <p>[86] 2022-05-18 (PCT/IB2022/054607)</p> <p>[87] (WO2022/248975)</p> <p>[30] IT (102021000013814) 2021-05-27</p>
[21] <b>3,219,804</b> [13] A1	[21] <b>3,219,804</b> [13] A1	[21] <b>3,219,804</b> [13] A1
<p>[51] <b>Int.Cl. C07D 487/04 (2006.01) A61K 31/5025 (2006.01) A61P 25/00 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>FUSED HETEROCYCLIC DERIVATIVES AS NEGATIVE ALLOSTERIC MODULATORS OF MGLU7 RECEPTOR</b></p> <p>[54] <b>DERIVES HETEROCYCLIQUES FUSIONNES UTILISES EN TANT QUE MODULATEURS ALLOSTERIQUES NEGATIFS DU RECEPTEUR MGLU7</b></p> <p>[72] PAPARIN, JEAN-LAURENT, CH</p> <p>[72] ROCHER, JEAN-PHILIPPE, CH</p> <p>[72] FINN, TERRY, CH</p> <p>[72] DUVEY, GUILLAUME, FR</p> <p>[71] ADDEX PHARMA S.A., CH</p> <p>[85] 2023-11-10</p> <p>[86] 2022-05-13 (PCT/EP2022/063108)</p> <p>[87] (WO2022/238580)</p> <p>[30] GB (2106872.1) 2021-05-13</p>	<p>[51] <b>Int.Cl. C07D 487/04 (2006.01) A61K 31/5025 (2006.01) A61P 25/00 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>FUSED HETEROCYCLIC DERIVATIVES AS NEGATIVE ALLOSTERIC MODULATORS OF MGLU7 RECEPTOR</b></p> <p>[54] <b>DERIVES HETEROCYCLIQUES FUSIONNES UTILISES EN TANT QUE MODULATEURS ALLOSTERIQUES NEGATIFS DU RECEPTEUR MGLU7</b></p> <p>[72] PAPARIN, JEAN-LAURENT, CH</p> <p>[72] ROCHER, JEAN-PHILIPPE, CH</p> <p>[72] FINN, TERRY, CH</p> <p>[72] DUVEY, GUILLAUME, FR</p> <p>[71] ADDEX PHARMA S.A., CH</p> <p>[85] 2023-11-10</p> <p>[86] 2022-05-13 (PCT/EP2022/063108)</p> <p>[87] (WO2022/238580)</p> <p>[30] GB (2106872.1) 2021-05-13</p>	<p>[51] <b>Int.Cl. C07D 487/04 (2006.01) A61K 31/5025 (2006.01) A61P 25/00 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>FUSED HETEROCYCLIC DERIVATIVES AS NEGATIVE ALLOSTERIC MODULATORS OF MGLU7 RECEPTOR</b></p> <p>[54] <b>DERIVES HETEROCYCLIQUES FUSIONNES UTILISES EN TANT QUE MODULATEURS ALLOSTERIQUES NEGATIFS DU RECEPTEUR MGLU7</b></p> <p>[72] PAPARIN, JEAN-LAURENT, CH</p> <p>[72] ROCHER, JEAN-PHILIPPE, CH</p> <p>[72] FINN, TERRY, CH</p> <p>[72] DUVEY, GUILLAUME, FR</p> <p>[71] ADDEX PHARMA S.A., CH</p> <p>[85] 2023-11-10</p> <p>[86] 2022-05-13 (PCT/EP2022/063108)</p> <p>[87] (WO2022/238580)</p> <p>[30] GB (2106872.1) 2021-05-13</p>



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[21] **3,219,810**  
[13] A1

[51] **Int.Cl. B60R 25/33 (2013.01)**  
[25] EN  
[54] **DEVICE AND METHOD FOR MONITORING AT LEAST ONE VEHICLE IDENTIFICATION NUMBER**  
[54] **DISPOSITIF ET PROCEDE DE SURVEILLANCE D'AU MOINS UN NUMERO D'IDENTIFICATION DE VEHICULE**  
[72] HERNANDEZ, JUAN-RAMON, CH  
[72] SCHMIDBAUER, HARDY, CH  
[71] NAGRAVISION SARL, CH  
[85] 2023-11-21  
[86] 2022-06-02 (PCT/EP2022/065073)  
[87] (WO2022/253968)  
[30] EP (21177612.5) 2021-06-03

[21] **3,219,811**  
[13] A1

[25] EN  
[54] **A PATIENT INTERFACE WITH A HEAT AND MOISTURE EXCHANGER**  
[54] **INTERFACE PATIENT AVEC ECHANGEUR DE CHALEUR ET D'HUMIDITE**  
[72] EBERL, LORENZ, AU  
[72] STANISLAS, LUKE ANDREW, AU  
[71] RESMED PTY LTD, AU  
[85] 2023-11-21  
[86] 2022-05-27 (PCT/AU2022/050514)  
[87] (WO2022/246519)  
[30] AU (2021901586) 2021-05-27

[21] **3,219,814**  
[13] A1

[51] **Int.Cl. A61K 35/74 (2015.01)**  
[25] EN  
[54] **MPLA COMPOSITIONS AND METHODS OF USE**  
[54] **COMPOSITIONS DE MPLA ET PROCEDES D'UTILISATION**  
[72] ROLKE, JAMES M., US  
[72] STEPHENS, JACKSON R., US  
[72] NINOSKY, JOSEPH M., US  
[71] REVELATION BIOSCIENCES, INC., US  
[85] 2023-11-21  
[86] 2022-05-26 (PCT/US2022/031060)  
[87] (WO2022/251444)  
[30] US (63/193,799) 2021-05-27

[21] **3,219,818**  
[13] A1

[51] **Int.Cl. C12N 9/64 (2006.01) C12N 15/85 (2006.01) G01N 33/558 (2006.01)**  
[25] EN  
[54] **CELLS SENSITIVE TO BOTULINUM TOXIN INTO WHICH SPECIFIC GENE HAS BEEN INSERTED BY LENTIVIRUS**  
[54] **CELLULES SENSIBLES A LA TOXINE BOTULIQUE DANS LESQUELLES UN GENE SPECIFIQUE A ETE INSERE PAR UN LENTIVIRUS**  
[72] JANG, SUNG SU, KR  
[72] LIM, IL HO, KR  
[72] LEE, HAK SUP, KR  
[72] AHN, YONG SHIK, KR  
[72] CHOI, DOO JIN, KR  
[71] ATGC CO., LTD., KR  
[85] 2023-11-21  
[86] 2022-05-24 (PCT/KR2022/007323)  
[87] (WO2022/250405)  
[30] KR (10-2021-0066040) 2021-05-24  
[30] KR (10-2022-0063008) 2022-05-23

[21] **3,219,821**  
[13] A1

[51] **Int.Cl. A23L 33/10 (2016.01) A61K 31/575 (2006.01) A61P 21/00 (2006.01)**  
[25] EN  
[54] **COMPOSITION COMPRISING INOTODIOL FOR PREVENTION OR TREATMENT OF MUSCULAR DISEASE**  
[54] **COMPOSITION COMPRENANT UN INOTODIOL POUR LA PREVENTION OU LE TRAITEMENT D'UNE MALADIE MUSCULAIRE**  
[72] LEE, SANG-JIN, KR  
[72] YOU, CHANG-LIM, KR  
[72] BAE, JU-HYEON, KR  
[71] ANIMUSCURE INC., KR  
[85] 2023-11-21  
[86] 2021-10-25 (PCT/KR2021/015026)  
[87] (WO2022/244929)  
[30] KR (10-2021-0065626) 2021-05-21  
[30] KR (10-2021-0142645) 2021-10-25

[21] **3,219,822**  
[13] A1

[51] **Int.Cl. C12Q 1/6883 (2018.01) C12Q 1/6813 (2018.01)**  
[25] EN  
[54] **COMPOSITION AND METHOD FOR ANALYZING TARGET MOLECULE FROM SAMPLE**  
[54] **COMPOSITION ET PROCEDE D'ANALYSE D'UNE MOLECULE CIBLE A PARTIR D'UN ECHANTILLON**  
[72] SHI, WEIYANG, CN  
[71] 10K GENOMICS, CN  
[85] 2023-11-21  
[86] 2022-05-20 (PCT/CN2022/094017)  
[87] (WO2022/242734)  
[30] CN (202110557216.8) 2021-05-21

[21] **3,219,824**  
[13] A1

[51] **Int.Cl. A61B 34/30 (2016.01)**  
[25] EN  
[54] **ROBOTIC SURGICAL INSTRUMENTS WITH DIVERGING FORM FACTORS**  
[54] **INSTRUMENTS CHIRURGICAUX ROBOTIQUES A FACTEURS DE FORME DIVERGENTS**  
[72] HORNSBY, JACK ALEXANDER, GB  
[72] BURNES, ANTONY R., GB  
[72] MARINOVICH, MATTHEW M., GB  
[72] PAWULSKI, MARK J., GB  
[71] COVIDIEN LP, US  
[85] 2023-11-21  
[86] 2022-05-26 (PCT/CA2022/050847)  
[87] (WO2022/266746)  
[30] US (63/212,921) 2021-06-21

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[21] **3,219,827**  
[13] A1

[51] **Int.Cl. A61B 5/00 (2006.01) G16H 40/60 (2018.01) A61F 5/451 (2006.01) A61M 1/00 (2006.01)**

[25] EN

[54] **AN INTELLIGENT PUMP-BASED FLUID COLLECTION SYSTEM AND RELATED METHODS**

[54] **SYSTEME INTELLIGENT DE COLLECTE DE FLUIDE BASE SUR UNE POMPE ET PROCEDES ASSOCIES**

[72] GARVEY, TONY, IE  
[72] CARRACIOLA, MEGHAN, US  
[72] FOGARTY, PADRAIG, IE  
[72] RICHARDSON, TAMIKA, US  
[72] VAN GORKOM, AARON, US  
[71] PUREWICK CORPORATION, US  
[85] 2023-11-21  
[86] 2022-05-26 (PCT/US2022/031032)  
[87] (WO2022/251425)  
[30] US (63/193,891) 2021-05-27

[21] **3,219,828**  
[13] A1

[51] **Int.Cl. C09D 7/42 (2018.01) C09D 7/40 (2018.01) C08K 5/21 (2006.01) C08L 101/02 (2006.01) C09D 175/02 (2006.01) C07C 273/18 (2006.01) C08F 2/50 (2006.01) C08F 222/10 (2006.01) C08G 18/28 (2006.01) C08G 18/62 (2006.01) C08G 18/78 (2006.01) C08G 18/79 (2006.01) C08L 33/06 (2006.01) C08L 67/06 (2006.01) C09D 135/02 (2006.01)**

[25] EN

[54] **NON AQUEOUS CROSSLINKABLE COMPOSITION**

[54] **COMPOSITION NON AQUEUSE RETICULABLE**

[72] DE WOLF, ELWIN ALOYSIUS CORNELIUS ADRIANUS, NL  
[72] NOORDOVER, BART ADRIANUS JOHANNES, NL  
[72] MAAS, SHARON, NL  
[72] KOEKEN, RONALD ADRIANUS CORNELIS, NL  
[72] LOOIJ, NATASJA, NL  
[71] ALLNEX NETHERLANDS B.V., NL  
[85] 2023-11-21  
[86] 2022-06-20 (PCT/EP2022/066653)  
[87] (WO2022/268669)  
[30] EP (21180835.7) 2021-06-22  
[30] EP (22175129.0) 2022-05-24

[21] **3,219,829**  
[13] A1

[51] **Int.Cl. A61P 25/08 (2006.01)**

[25] EN

[54] **METHOD OF TREATING ESSENTIAL TREMOR**

[54] **METHODE DE TRAITEMENT DU TREMBLEMENT ESSENTIEL**

[72] LEE, MARGARET S., US  
[72] BALADI, MICHELLE GILBERT, US  
[71] CAVION, INC., US  
[85] 2023-11-21  
[86] 2022-05-23 (PCT/US2022/072510)  
[87] (WO2022/251812)  
[30] US (63/192,535) 2021-05-24

[21] **3,219,830**  
[13] A1

[51] **Int.Cl. C12N 15/90 (2006.01) A61P 37/06 (2006.01) C07H 21/04 (2006.01)**

[25] EN

[54] **CIITA TARGETING ZINC FINGER NUCLEASES**

[54] **NUCLEASES A DOIGT DE ZINC CIBLANT CIITA**

[72] ZHANG, LEI, US  
[72] REIK, ANDREAS, US  
[71] SANGAMO THERAPEUTICS, INC., US  
[85] 2023-11-21  
[86] 2022-05-24 (PCT/US2022/030727)  
[87] (WO2022/251217)  
[30] US (63/202,029) 2021-05-24

[21] **3,219,831**  
[13] A1

[51] **Int.Cl. F24F 11/46 (2018.01) F24F 11/64 (2018.01)**

[25] EN

[54] **METHOD AND APPARATUS FOR CONTROLLING AIR CONDITIONING UNIT, ELECTRONIC DEVICE, AND READABLE STORAGE MEDIUM**

[54] **PROCEDE ET APPAREIL POUR COMMANDER UNE UNITE DE CONDITIONNEMENT D'AIR, DISPOSITIF ELECTRONIQUE ET SUPPORT DE STOCKAGE LISIBLE**

[72] LI, ZHENSHAN, CN  
[72] YANG, ZHIHUA, CN  
[72] HE, BIN, CN  
[72] ZHAO, QIANYI, CN  
[72] WANG, XUYANG, CN  
[72] ZHANG, HONGXIANG, CN  
[71] CHONGQING MIDEA GENERAL REFRIGERATION EQUIPMENT CO., LTD., CN  
[71] MIDEA GROUP CO., LTD., CN  
[85] 2023-11-21  
[86] 2022-12-01 (PCT/CN2022/136008)  
[87] (WO2023/098833)  
[30] CN (202111453483.7) 2021-12-01

[21] **3,219,832**  
[13] A1

[51] **Int.Cl. C07K 16/28 (2006.01) A61P 35/02 (2006.01)**

[25] EN

[54] **DOSING REGIMENS FOR PROTEIN THERAPEUTICS**

[54] **SCHEMAS POSOLOGIQUES POUR AGENTS THERAPEUTIQUES PROTEIQUES**

[72] UCKUN, FATIH, US  
[72] STROMATT, SCOTT, US  
[71] APTEVO RESEARCH AND DEVELOPMENT LLC, US  
[85] 2023-11-21  
[86] 2022-05-20 (PCT/US2022/030323)  
[87] (WO2022/246244)  
[30] US (63/191,488) 2021-05-21  
[30] US (63/253,714) 2021-10-08

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[21] <b>3,219,834</b> [13] A1	[21] <b>3,219,838</b> [13] A1	[21] <b>3,219,841</b> [13] A1
<p>[25] EN</p> <p>[54] <b>COMPOSITIONS AND METHODS FOR IMPROVED TREATMENT OF X-LINKED MYOTUBULAR MYOPATHY</b></p> <p>[54] <b>COMPOSITIONS ET PROCEDES POUR LE TRAITEMENT AMELIORE DE LA MYOPATHIE MYOTUBULAIRE LIEE AUX RAYONS X</b></p> <p>[72] MILLER, WESTON, US</p> <p>[72] BACHTELL, NATHAN, US</p> <p>[71] ASTELLAS GENE THERAPIES, INC., US</p> <p>[85] 2023-11-21</p> <p>[86] 2022-05-24 (PCT/US2022/030716)</p> <p>[87] (WO2022/251208)</p> <p>[30] US (63/192,279) 2021-05-24</p> <p>[30] US (63/245,611) 2021-09-17</p>	<p>[51] <b>Int.Cl. A47G 19/12 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>IMMUNOMODULATION OF TUMOR MICROENVIRONMENT</b></p> <p>[54] <b>IMMUNOMODULATION DU MICROENVIRONNEMENT TUMORAL</b></p> <p>[72] GENKIN, DMITRY DMITRIEVICH, RU</p> <p>[72] TETS, GEORGY VIKTOROVICH, US</p> <p>[72] TETS, VIKTOR VENIAMINOVICH, US</p> <p>[71] GENKIN, DMITRY DMITRIEVICH, RU</p> <p>[71] TETS, GEORGY VIKTOROVICH, US</p> <p>[71] TETS, VIKTOR VENIAMINOVICH, US</p> <p>[85] 2023-11-21</p> <p>[86] 2022-05-20 (PCT/US2022/030168)</p> <p>[87] (WO2022/246139)</p> <p>[30] US (63/191,551) 2021-05-21</p>	<p>[25] EN</p> <p>[54] <b>REPULPABLE INSULATING LINERS, SHIPPING AND STORAGE CONTAINER THEREWITH AND METHODS OF MAKING AND USING THEREOF</b></p> <p>[54] <b>REVETEMENTS ISOLANTS REPULPABLES, CONTENANTS D'EXPEDITION ET DE STOCKAGE LES COMPRENANT, ET PROCEDES POUR LES FABRIQUER ET LES UTILISER</b></p> <p>[72] DE BAZELAIRE DE LESSEUX, LIONEL, US</p> <p>[72] FLOWERS III, LANGDON STRONG, US</p> <p>[72] DE BAZELAIRE DE LESSEUX, BAUDOUIN, US</p> <p>[71] COLDKEEPERS, LLC, US</p> <p>[85] 2023-11-21</p> <p>[86] 2022-05-09 (PCT/US2022/028263)</p> <p>[87] (WO2022/245561)</p> <p>[30] US (63/190,965) 2021-05-20</p>
[21] <b>3,219,835</b> [13] A1	[21] <b>3,219,839</b> [13] A1	[21] <b>3,219,842</b> [13] A1
<p>[51] <b>Int.Cl. A43B 13/12 (2006.01) A43B 13/16 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>SYSTEMS AND METHODS FOR CUSHIONED FOOTWEAR</b></p> <p>[54] <b>SYSTEMES ET PROCEDES POUR ARTICLE CHAUSSANT REMBOURRE</b></p> <p>[72] STOLLENWERK, JOHN JR., US</p> <p>[72] SOLIS, JAVIER, US</p> <p>[71] SOLWERK, US</p> <p>[85] 2023-11-21</p> <p>[86] 2021-05-17 (PCT/US2021/032702)</p> <p>[87] (WO2022/245327)</p>	<p>[51] <b>Int.Cl. C22B 3/44 (2006.01) H01M 4/525 (2010.01) C22B 3/26 (2006.01) C22B 26/12 (2006.01) H01M 10/0525 (2010.01)</b></p> <p>[25] EN</p> <p>[54] <b>PROCESS FOR RECYCLING BATTERY MATERIALS BY WAY OF HYDROMETALLURGICAL TREATMENT</b></p> <p>[54] <b>PROCEDE DE RECYCLAGE DE MATERIAUX DE BATTERIE PAR TRAITEMENT HYDROMETALLURGIQUE</b></p> <p>[72] MEESE-MARKTSCHIEFFEL, JULIANE, DE</p> <p>[72] OLBRICH, ARMIN, DE</p> <p>[72] WOLFF, ALEXANDER, DE</p> <p>[72] ZEUGNER, ALEXANDER, DE</p> <p>[72] EGEBERG, ALEXANDER, DE</p> <p>[72] SAEUBERLICH, TINO, DE</p> <p>[71] H.C. STARCK TUNGSTEN GMBH, DE</p> <p>[85] 2023-11-21</p> <p>[86] 2022-06-21 (PCT/EP2022/066855)</p> <p>[87] (WO2022/268797)</p> <p>[30] EP (21181175.7) 2021-06-23</p>	<p>[51] <b>Int.Cl. A61K 35/14 (2015.01) A61K 35/16 (2015.01)</b></p> <p>[25] EN</p> <p>[54] <b>METHODS AND SYSTEMS FOR PREPARATION OF MONONUCLEAR-PLATELET RICH FIBRIN MATRIX, AND COMPOUNDS THEREOF</b></p> <p>[54] <b>PROCEDES ET SYSTEMES POUR LA PREPARATION D'UNE MATRICE DE FIBRINE RICHE EN PLAQUETTES MONONUCLEAIRES, ET COMPOSES ASSOCIES</b></p> <p>[72] CARROLL, RICHARD J., US</p> <p>[71] PRP CONCEPTS, INC., US</p> <p>[85] 2023-11-21</p> <p>[86] 2022-05-12 (PCT/US2022/028941)</p> <p>[87] (WO2022/250969)</p> <p>[30] US (63/193,889) 2021-05-27</p>
[21] <b>3,219,837</b> [13] A1		
<p>[25] EN</p> <p>[54] <b>INSECT NETTING FOR A GREENHOUSE</b></p> <p>[54] <b>MOUSTIQUAIRE POUR SERRE</b></p> <p>[72] HAARING, ROLAND, NL</p> <p>[72] SCHULTE, MARCEL JOHANNES GERARDUS, NL</p> <p>[71] HOLLAND GAAS B.V., NL</p> <p>[85] 2023-11-21</p> <p>[86] 2022-05-20 (PCT/NL2022/050278)</p> <p>[87] (WO2022/245215)</p> <p>[30] NL (2028269) 2021-05-21</p>		

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[21] **3,219,843**  
[13] A1

[51] **Int.Cl. A61K 45/06 (2006.01)**  
[25] EN  
[54] **DEVICES, METHODS, AND COMPOSITIONS FOR THERMAL ACCELERATION AND DRUG DELIVERY**  
[54] **DISPOSITIFS, PROCEDES ET COMPOSITIONS POUR ACCELERATION THERMIQUE ET ADMINISTRATION DE MEDICAMENT**  
[72] PARK, WILLIAM KEUN CHAN, US  
[72] DUPUY, DAMIAN E., US  
[71] THEROMICS, INC., US  
[85] 2023-11-21  
[86] 2022-05-23 (PCT/US2022/030602)  
[87] (WO2022/251141)  
[30] US (63/192,253) 2021-05-24  
[30] US (63/304,071) 2022-01-28

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[21] **3,219,845**  
[13] A1

[25] EN  
[54] **MULTI-COMPONENT POWDER COATING COMPOSITIONS AND METHODS FOR HEAT SENSITIVE SUBSTRATES**  
[54] **COMPOSITIONS DE REVETEMENT EN POUDRE A COMPOSANTS MULTIPLES ET PROCEDES POUR SUBSTRATS THERMOSENSIBLES**  
[72] MCBEAN, BRIAN C., US  
[72] MUTHIAH, JENO, US  
[71] PPG INDUSTRIES OHIO, INC., US  
[85] 2023-11-21  
[86] 2022-06-16 (PCT/US2022/072970)  
[87] (WO2022/266647)  
[30] US (63/202,635) 2021-06-18  
[30] US (63/237,159) 2021-08-26

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[21] **3,219,846**  
[13] A1

[51] **Int.Cl. A61P 1/04 (2006.01) C07K 16/24 (2006.01)**  
[25] EN  
[54] **ANTI-IL-23P19 ANTIBODY REGULATION OF GENES INVOLVED IN ULCERATIVE COLITIS**  
[54] **REGULATION D'ANTICORPS ANTI-IL-23P19 DE GENES IMPLIQUES DANS LA RECTOCOLITE HEMORRAGIQUE**  
[72] KRISHNAN, VENKATESH, US  
[72] STEERE, BOYD ALLEN, US  
[71] ELI LILLY, US  
[85] 2023-11-21  
[86] 2022-05-27 (PCT/US2022/031328)  
[87] (WO2022/251623)  
[30] US (63/194,790) 2021-05-28  
[30] US (63/295,636) 2021-12-31

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[21] **3,219,847**  
[13] A1

[25] EN  
[54] **ADENO-ASSOCIATED VIRUS VECTORS MODIFIED TO BIND HIGH-DENSITY LIPOPROTEIN**  
[54] **VECTEURS DE VIRUS ADENO-ASSOCIES MODIFIES POUR SE LIER A UNE LIPOPROTEINE DE HAUTE DENSITE**  
[72] VAN DEVENTER, SANDER JAN HENDRIK, NL  
[72] BOSMA, SEBASTIAAN MENNO, NL  
[72] ANGGAKUSUMA, -, NL  
[71] UNIQURE BIOPHARMA B.V., NL  
[85] 2023-11-21  
[86] 2022-06-02 (PCT/EP2022/065106)  
[87] (WO2022/253974)  
[30] EP (21177449.2) 2021-06-02  
[30] EP (21179856.6) 2021-06-16

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[21] **3,219,849**  
[13] A1

[51] **Int.Cl. D06H 7/22 (2006.01)**  
[25] EN  
[54] **AN INSECT NET LAMELLA AND METHOD OF PRODUCING THE SAME**  
[54] **LAMELLE DE FILET D'INSECTES ET SON PROCEDE DE PRODUCTION**  
[72] HOLGERSSON, LOUISE, SE  
[72] WIDEN, SARA, SE  
[72] BERGH GUSTAFSSON, NICLAS, SE  
[72] ALMSTROM, STEFAN, SE  
[71] AB LUDVIG SVENSSON, SE  
[85] 2023-11-21  
[86] 2022-05-19 (PCT/EP2022/063621)  
[87] (WO2022/243460)  
[30] SE (2150652-2) 2021-05-21  
[30] SE (2151184-5) 2021-09-28

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[21] **3,219,851**  
[13] A1

[51] **Int.Cl. A61K 38/095 (2019.01) A61P 1/16 (2006.01) A61P 13/12 (2006.01)**  
[25] EN  
[54] **METHOD OF TREATING PATIENTS WITH HEPATORENAL SYNDROME TYPE 1**  
[54] **METHODE DE TRAITEMENT DE PATIENTS ATTEINTS D'UN SYNDROME HEPATORENAL DE TYPE 1**  
[72] TEUBER, PETER, US  
[72] PAPPAS, STEPHEN CHRIS, IE  
[72] JAMIL, KHURRAM, IE  
[71] MALLINCKRODT PHARMACEUTICALS IRELAND LIMITED, IE  
[85] 2023-11-21  
[86] 2022-06-07 (PCT/US2022/032511)  
[87] (WO2022/261102)  
[30] US (17/340,765) 2021-06-07

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[21] **3,219,854**  
[13] A1

[51] **Int.Cl. B01J 37/02 (2006.01)**  
[25] EN  
[54] **MANUFACTURING AND USE OF CO-DOPED MULTI-METALLIC ELECTROCATALYSTS FOR UPGRADING OF CO TO PROPANOL**  
[54] **FABRICATION ET UTILISATION D'ELECTROCATALYSEURS MULTIMETALLIQUES CODOPES POUR LA VALORISATION DE CO EN PROPANOL**  
[72] WANG, XUE, CA  
[72] SARGENT, EDWARD, CA  
[71] THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORONTO, CA  
[85] 2023-11-21  
[86] 2022-05-25 (PCT/CA2022/050828)  
[87] (WO2022/246552)  
[30] US (63/192,842) 2021-05-25

[21] **3,219,856**  
[13] A1

[51] **Int.Cl. F24F 1/0007 (2019.01) F24F 13/20 (2006.01)**  
[25] EN  
[54] **WALL-MOUNTED AIR CONDITIONER**  
[54] **CLIMATISEUR MURAL**  
[72] ZHOU, BAISONG, CN  
[72] WU, DUODE, CN  
[71] HEFEI MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN  
[71] GD MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN  
[85] 2023-11-21  
[86] 2022-02-09 (PCT/CN2022/075656)  
[87] (WO2022/252677)  
[30] CN (202110611174.1) 2021-06-01

[21] **3,219,857**  
[13] A1

[25] EN  
[54] **ARTICLE FOR SEALING OBJECTS**  
[54] **ARTICLE POUR SCELLER DES OBJETS**  
[72] DEMELLO, ALAN J., US  
[72] LOUGHNEY, DAVID M., US  
[72] CLEMONS, TODD M., US  
[71] ULTRAFAB, INC., US  
[85] 2023-11-21  
[86] 2022-05-21 (PCT/US2022/030430)  
[87] (WO2022/246307)  
[30] US (63/191,717) 2021-05-21

[21] **3,219,858**  
[13] A1

[51] **Int.Cl. C07D 471/04 (2006.01) A61K 31/4375 (2006.01) C07D 401/12 (2006.01)**  
[25] EN  
[54] **NITROGEN-CONTAINING HETEROCYCLIC COMPOUND, PREPARATION METHOD THEREFOR, AND APPLICATION THEREOF IN MEDICINES**  
[54] **COMPOSE HETEROCYCLIQUE CONTENANT DE L'AZOTE, SON PROCEDE DE PREPARATION ET SON APPLICATION DANS DES MEDICAMENTS**  
[72] LI, XIN, CN  
[72] DONG, HUAIDE, CN  
[72] CAI, GUODONG, CN  
[72] HE, FENG, CN  
[72] TAO, WEIKANG, CN  
[71] JIANGSU HENGRUI PHARMACEUTICALS CO., LTD., CN  
[71] SHANGHAI HENGRUI PHARMACEUTICAL, CN  
[85] 2023-11-21  
[86] 2022-05-24 (PCT/CN2022/094612)  
[87] (WO2022/247816)  
[30] CN (202110565410.0) 2021-05-24  
[30] CN (202110694022.2) 2021-06-22  
[30] CN (202110856289.7) 2021-07-28  
[30] CN (202210198679.4) 2022-03-02

[21] **3,219,859**  
[13] A1

[51] **Int.Cl. C08K 3/34 (2006.01) C08J 11/06 (2006.01) C08L 23/06 (2006.01)**  
[25] EN  
[54] **COMPOSITIONS COMPRISING POST-CONSUMER RECYCLED RESIN AND ODOR-ACTIVE ZEOLITE TO MITIGATE TASTE AND ODOR**  
[54] **COMPOSITIONS COMPRENANT UNE RESINE RECYCLEE APRES CONSOMMATION ET UNE ZEOLITE ACTIVE CONTRE LES ODEURS POUR ATTENUER LE GOUT ET L'ODEUR**  
[72] HAUSMANN, KARLHEINZ, CH  
[72] ABEBE, DANIEL G., US  
[72] WILLIAMSON, ALEXANDER, US  
[72] MATTEUCCI, SCOTT T., US  
[72] SUN, KEFU, US  
[72] KILOS, BEATA A., US  
[72] TSAI, CAROL, US  
[72] GORIN, CRAIG F., US  
[72] WANG, JIN, US  
[71] DOW GLOBAL TECHNOLOGIES LLC, US  
[85] 2023-11-21  
[86] 2022-06-06 (PCT/US2022/032343)  
[87] (WO2022/260998)  
[30] US (63/197,549) 2021-06-07

[21] **3,219,860**  
[13] A1

[51] **Int.Cl. C07K 14/47 (2006.01)**  
[25] EN  
[54] **METHODS AND KITS FOR DIAGNOSING SYSTEMIC AUTOIMMUNE RHEUMATIC DISEASES**  
[54] **METHODES ET KITS POUR DIAGNOSTIQUER DES MALADIES RHUMATISMALES AUTO-IMMUNES SYSTEMIQUES**  
[72] BOILARD, ERIC, CA  
[72] FORTIN, PAUL R., CA  
[72] BECKER, YANN, CA  
[71] UNIVERSITE LAVAL, CA  
[85] 2023-11-21  
[86] 2022-05-26 (PCT/CA2022/050849)  
[87] (WO2022/246565)  
[30] US (63/202,080) 2021-05-26

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[21] **3,219,861**  
[13] A1

[51] **Int.Cl. E21D 9/11 (2006.01)**  
[25] EN  
[54] **METHOD, ARRANGEMENT AND MACHINE FOR FULL FACE REAMING**  
[54] **PROCEDE, AGENCEMENT ET MACHINE POUR UN ALESAGE INTEGRAL**  
[72] BERGKVIST, MAGNUS, SE  
[71] BERGTEAMET AB, SE  
[85] 2023-11-21  
[86] 2022-05-17 (PCT/SE2022/050479)  
[87] (WO2022/250590)  
[30] SE (2150660-5) 2021-05-25

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[21] **3,219,862**  
[13] A1

[25] EN  
[54] **HARD SHELL CAPSULES WITH MODIFIED RELEASE COATING**  
[54] **CAPSULES A ENVELOPPE DURE A REVETEMENT A LIBERATION MODIFIEE**  
[72] BAR, HANS, DE  
[72] HOFMANN, FELIX, DE  
[72] SMITH, STEVEN, DE  
[72] NIEPOTH, PETER, DE  
[72] JABER, RIMA, DE  
[72] HOLZER, BETTINA, DE  
[71] EVONIK OPERATIONS GMBH, DE  
[85] 2023-11-21  
[86] 2022-05-19 (PCT/EP2022/063581)  
[87] (WO2022/248334)  
[30] EP (21175685.3) 2021-05-25

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[21] **3,219,863**  
[13] A1

[51] **Int.Cl. F24F 13/20 (2006.01) F24F 1/0007 (2019.01)**  
[25] EN  
[54] **WALL-MOUNTED AIR CONDITIONER**  
[54] **CLIMATISEUR MONTE SUR UNE PAROI**  
[72] ZHOU, BAISONG, CN  
[72] WU, DUODE, CN  
[72] LI, BO, CN  
[72] WAN, YONGQIANG, CN  
[72] SU, QIQIN, CN  
[72] TU, YUNCHONG, CN  
[71] GD MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN  
[71] HEFEI MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN  
[85] 2023-11-21  
[86] 2022-02-11 (PCT/CN2022/076096)  
[87] (WO2022/252685)  
[30] CN (202110611186.4) 2021-06-01

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[21] **3,219,864**  
[13] A1

[25] EN  
[54] **MODULAR AND PORTABLE PLUG-AND-TRAIN ROBOT FOR PROVIDING HAND REHABILITATION**  
[54] **ROBOT MODULAIRE ET PORTABLE A BRANCHER ET ENTRAINER POUR FOURNIR UNE REEDUCATION DE LA MAIN**  
[72] SRINIVASAN, SUJATHA, IN  
[72] NEHRUJEE, ARAVIND, IN  
[72] BALASUBRAMANIAN, SIVAKUMAR, IN  
[71] INDIAN INSTITUTE OF TECHNOLOGY MADRAS (IIT MADRAS), IN  
[71] CHRISTIAN MEDICAL COLLEGE, IN  
[85] 2023-11-21  
[86] 2022-02-10 (PCT/IN2022/050115)  
[87] (WO2022/244014)  
[30] IN (202141022805) 2021-05-21

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[21] **3,219,867**  
[13] A1

[25] EN  
[54] **METHOD AND APPARATUS FOR ILLUMINATING A DEFINED AREA OF AN OBJECT**  
[54] **PROCEDE ET APPAREIL D'ECLAIRAGE D'UNE ZONE DEFINIE D'UN OBJET**  
[72] MISENER, GARLAND CHRISTIAN, US  
[71] IDEXX LABORATORIES, INC., US  
[85] 2023-11-21  
[86] 2022-06-02 (PCT/US2022/031978)  
[87] (WO2022/256541)  
[30] US (63/196,941) 2021-06-04

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[21] **3,219,868**  
[13] A1

[51] **Int.Cl. G06F 17/10 (2006.01) G06N 99/00 (2019.01)**  
[25] EN  
[54] **SOLUTION FINDING DEVICE, SOLUTION FINDING METHOD, AND PROGRAM**  
[54] **DISPOSITIF DE RECHERCHE DE SOLUTION, PROCEDE DE RECHERCHE DE SOLUTION ET PROGRAMME**  
[72] SUZUKI, MASARU, JP  
[71] KABUSHIKI KAISHA TOSHIBA, JP  
[71] TOSHIBA DIGITAL SOLUTIONS CORPORATION, JP  
[85] 2023-11-21  
[86] 2022-04-14 (PCT/JP2022/017778)  
[87] (WO2022/249785)  
[30] JP (2021-087125) 2021-05-24

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[21] **3,219,869**  
[13] A1

[51] **Int.Cl. E21B 34/14 (2006.01) E21B 34/08 (2006.01) E21B 43/26 (2006.01)**  
[25] EN  
[54] **FULL-BORE AND INFINITE-STAGE SEGMENTED-FRACTURING SLIDING SLEEVE BASED ON INTELLIGENT LABEL CONTROL, AND IMPLEMENTATION METHOD**  
[54] **MANCHON COULISSANT DE FRACTURATION SEGMENTEE A PASSAGE INTEGRAL ET A ETAGE INFINI BASE SUR UNE COMMANDE D'ETIQUETTE INTELLIGENTE, ET PROCEDE DE MISE EN ?UVRE**  
[72] SONG, WENPING, CN  
[72] ZHANG, DUOLI, CN  
[72] YANG, JUN, CN  
[72] LI, FENGLONG, CN  
[72] WANG, HUAPENG, CN  
[71] NINGBO HUA AO INTELLIGENT EQUIPMENT CO., LTD, CN  
[85] 2023-11-21  
[86] 2023-04-26 (PCT/CN2023/090719)  
[87] (WO2023/160732)  
[30] CN (202210187900.6) 2022-02-28

[21] **3,219,870**  
[13] A1

[25] EN  
[54] **HARD-SHELL CAPSULE WITH INFLUX PREVENTION OF GASTRIC FLUIDS**  
[54] **CAPSULE A COQUE DURE AVEC PREVENTION D'ENTREE DE FLUIDES GASTRIQUES**  
[72] BAR, HANS, DE  
[72] HELLER, PHILIPP, DE  
[72] SMITH, STEVEN, DE  
[72] HOLZER, BETTINA, DE  
[71] EVONIK OPERATIONS GMBH, DE  
[85] 2023-11-21  
[86] 2022-05-23 (PCT/EP2022/063843)  
[87] (WO2022/248381)  
[30] EP (21175704.2) 2021-05-25

[21] **3,219,872**  
[13] A1

[51] **Int.Cl. A61K 31/6615 (2006.01)**  
[25] EN  
[54] **COMPOUNDS INHIBITING THE SYNERGISTIC CARSI NOGENIC EFFECT OF HEAVY METALS IN THE PRESENCE OF OTHER CARCINOGENS FOR USE IN THE TREATMENT OF CANCER**  
[54] **COMPOSES INHIBANT L'EFFET CARCINOGENE SYNERGIQUE DE METAUX LOURDS EN PRESENCE D'AUTRES CARCINOGENES DESTINES A ETRE UTILISES DANS LE TRAITEMENT DU CANCER**  
[72] SARVANTO, KARI, CH  
[71] CANCER RESEARCH AND BIOTECHNOLOGY AG, CH  
[85] 2023-11-21  
[86] 2022-05-20 (PCT/EP2022/063811)  
[87] (WO2022/243552)  
[30] FI (20215608) 2021-05-21

[21] **3,219,873**  
[13] A1

[51] **Int.Cl. F02N 11/14 (2006.01)**  
[25] EN  
[54] **BATTERY CHARGER AND ENGINE JUMP START SYSTEM WITH AUTOMATIC OPERATING MODE VIA A SINGLE OUTPUT RECEPTACLE**  
[54] **SYSTEME DE CHARGEUR DE BATTERIE ET DE DEMARRAGE DE MOTEUR PAR BLOC D'ALIMENTATION DE SECOURS A MODE DE FONCTIONNEMENT AUTOMATIQUE PAR L'INTERMEDIAIRE D'UN SEUL CONNECTEUR FEMELLE DE SORTI**  
[72] BRUMLEY, EDWARD WILLIAM, US  
[72] SHREAD, PETER JAMES, US  
[72] DE LA CRUZ, FRANCISCO JAVIER, US  
[71] DELTRAN OPERATIONS USA, INC., US  
[85] 2023-11-21  
[86] 2022-05-20 (PCT/US2022/030287)  
[87] (WO2022/246223)  
[30] US (17/327,112) 2021-05-21

[21] **3,219,875**  
[13] A1

[51] **Int.Cl. A61P 25/24 (2006.01) C07D 261/04 (2006.01)**  
[25] EN  
[54] **ADJUNCTIVE D-CYCLOSERINE AUGMENTATION OF TRANSCRANIAL MAGNETIC STIMULATION (TMS) THERAPY FOR MAJOR DEPRESSIVE DISORDER**  
[54] **AUGMENTATION DE D-CYCLOSERINE D'APPOINT DE LA THERAPIE PAR STIMULATION MAGNETIQUE TRANSCRANIENNE (TMS) POUR UN TROUBLE DEPRESSIF MAJEUR**  
[72] MCGIRR, ALEXANDER ROBERT ANGUS, CA  
[71] MCGRX CORP., CA  
[85] 2023-11-21  
[86] 2022-05-26 (PCT/CA2022/050839)  
[87] (WO2022/246557)  
[30] US (63/193,643) 2021-05-27

[21] **3,219,877**  
[13] A1

[51] **Int.Cl. H01M 8/04 (2016.01) H01M 8/04111 (2016.01) H01M 8/0606 (2016.01) H01M 8/0662 (2016.01) H01M 8/0668 (2016.01) H01M 8/10 (2016.01)**  
[25] EN  
[54] **FUEL CELL POWER GENERATION SYSTEM**  
[54] **SYSTEME DE GENERATION D'ENERGIE A PILE A COMBUSTIBLE**  
[72] UMEMURA, HITOMI, JP  
[72] NAKAMURA, MASAKI, JP  
[71] MITSUI O.S.K. LINES, LTD., JP  
[85] 2023-11-21  
[86] 2022-05-25 (PCT/JP2022/021374)  
[87] (WO2022/250079)  
[30] JP (2021-087837) 2021-05-25

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[21] **3,219,879**  
[13] A1

[51] **Int.Cl. H04L 27/26 (2006.01)**  
[25] EN  
[54] **DATA TRANSMISSION METHOD AND APPARATUS, AND ELECTRONIC DEVICE AND STORAGE MEDIUM**  
[54] **PROCEDE ET APPAREIL DE TRANSMISSION DE DONNEES, DISPOSITIF ELECTRONIQUE ET SUPPORT DE STOCKAGE**  
[72] XIN, YU, CN  
[72] BAO, TONG, CN  
[72] XU, JIN, CN  
[71] ZTE CORPORATION, CN  
[85] 2023-11-21  
[86] 2022-05-19 (PCT/CN2022/093763)  
[87] (WO2022/242705)  
[30] CN (202110558719.7) 2021-05-21

[21] **3,219,880**  
[13] A1

[51] **Int.Cl. A61K 47/69 (2017.01) A61P 37/08 (2006.01)**  
[25] EN  
[54] **NANOPARTICLES COMPRISING PEPTIDES INCLUDING AN N-TERMINAL LINKER**  
[54] **NANOPARTICULES CONTENANT DES PEPTIDES CONTENANT UN LIEUR N-TERMINAL**  
[72] POHLNER, JOHANNES, DE  
[72] DIGIGOW, REINALDO, DE  
[72] METZLER, BARBARA, DE  
[72] FLEISCHER, SABINE, DE  
[71] TOPAS THERAPEUTICS GMBH, DE  
[85] 2023-11-21  
[86] 2022-06-02 (PCT/EP2022/065036)  
[87] (WO2022/253950)  
[30] EP (21177499.7) 2021-06-02

[21] **3,219,882**  
[13] A1

[51] **Int.Cl. C08K 3/016 (2018.01) C08K 3/04 (2006.01) H01B 7/295 (2006.01)**  
[25] EN  
[54] **BRONSTED ACID CATALYST POLYMERIC COMPOSITIONS**  
[54] **COMPOSITIONS POLYMERES DE CATALYSEUR ACIDE DE BRONSTED**  
[72] CHAUDHARY, BHARAT I., US  
[72] BOLZ, KURT A. III, US  
[72] DREUX, PETER C., US  
[72] PAPPU, VENKATA KRISHNA SAI, US  
[72] KRASOVSKIY, ARKADY L., US  
[71] DOW GLOBAL TECHNOLOGIES LLC, US  
[85] 2023-11-21  
[86] 2022-06-06 (PCT/US2022/032374)  
[87] (WO2022/261015)  
[30] US (63/197,626) 2021-06-07

[21] **3,219,883**  
[13] A1

[51] **Int.Cl. A01N 63/50 (2020.01) A61L 31/10 (2006.01) A61L 31/16 (2006.01) C07K 7/08 (2006.01) C09D 133/26 (2006.01)**  
[25] EN  
[54] **POLYMERIC ANTIFOULING COATING WITH ANTIMICROBIAL PEPTIDES**  
[54] **REVETEMENT ANTISALISSURE POLYMERE COMPORTANT DES PEPTIDES ANTIMICROBIENS**  
[72] KIZHAKKEDATHU, JAYACHANDRAN, CA  
[72] LANGE, DIRK, CA  
[72] YU, KAI, CA  
[72] HANCOCK, ROBERT E.W., CA  
[71] THE UNIVERSITY OF BRITISH COLUMBIA, CA  
[85] 2023-11-21  
[86] 2022-06-02 (PCT/CA2022/050883)  
[87] (WO2022/251963)  
[30] US (63/195,836) 2021-06-02

[21] **3,219,885**  
[13] A1

[51] **Int.Cl. C08G 59/17 (2006.01) C08G 59/22 (2006.01) C08G 59/38 (2006.01) C08G 59/50 (2006.01)**  
[25] EN  
[54] **EPOXY RESIN MIXTURES COMPRISING EPOXIDE-ACRYLATE HYBRID MOLECULES AND MULTICOMPONENT REACTIVE RESIN COMPOSITIONS THEREFROM**  
[54] **MELANGES DE RESINE EPOXY COMPRENANT DES MOLECULES HYBRIDES D'EPOXYDE-ACRYLATE ET COMPOSITIONS DE RESINE REACTIVE A COMPOSANTS MULTIPLES OBTENUES A PARTIR DE CEUX-CI**  
[72] MARTIN-LASANTA, ANA-MARIA, DE  
[72] PESCHKE, URSULA, DE  
[72] BORNSCHLEGL, ALEXANDER, DE  
[72] NICKERL, GEORG, DE  
[72] GNASS, BEATE, DE  
[71] HILTI AKTIENGESELLSCHAFT, LI  
[85] 2023-11-21  
[86] 2022-07-06 (PCT/EP2022/068670)  
[87] (WO2023/285220)  
[30] EP (21185980.6) 2021-07-16

[21] **3,219,886**  
[13] A1

[51] **Int.Cl. A61C 13/087 (2006.01) A61C 13/09 (2006.01)**  
[25] EN  
[54] **BLOC USINABLE PAR CFAO POUR LA FABRICATION D'ELEMENT PROTHETIQUE DENTAIRE NOTAMMENT D'INLAY-CORE FIBREORE**  
[54] **BLOCK MACHINABLE BY CAD/CAM FOR THE MANUFACTURE OF A DENTAL PROSTHETIC ELEMENT, IN PARTICULAR A FIBRE INLAY CORE**  
[72] CHU, MANH-QUYNH, FR  
[71] SOCIETE DE RECHERCHES TECHNIQUES DENTAIRES - RTD, FR  
[85] 2023-11-21  
[86] 2021-05-27 (PCT/FR2021/050966)  
[87] (WO2022/248775)

[21] **3,219,888**  
[13] A1

[51] **Int.Cl. C07D 211/14 (2006.01) A61K**



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<p>31/454 (2006.01) A61K 31/4545  (2006.01) A61K 31/5377 (2006.01)  A61P 1/02 (2006.01) A61P 1/08  (2006.01) A61P 1/14 (2006.01) A61P  1/16 (2006.01) A61P 3/02 (2006.01)  A61P 3/04 (2006.01) A61P 3/06  (2006.01) A61P 3/10 (2006.01) A61P  5/06 (2006.01) A61P 5/24 (2006.01)  A61P 7/10 (2006.01) A61P 9/04  (2006.01) A61P 9/06 (2006.01) A61P  9/10 (2006.01) A61P 9/12 (2006.01)  A61P 15/08 (2006.01) A61P 19/02  (2006.01) A61P 19/06 (2006.01) A61P  19/08 (2006.01) A61P 21/02 (2006.01)  A61P 25/04 (2006.01) A61P 25/06  (2006.01) A61P 25/08 (2006.01) A61P  25/14 (2006.01) A61P 25/16 (2006.01)  A61P 25/18 (2006.01) A61P 25/20  (2006.01) A61P 25/22 (2006.01) A61P  25/24 (2006.01) A61P 25/26 (2006.01)  A61P 25/28 (2006.01) A61P 25/30  (2006.01) A61P 27/02 (2006.01) A61P  27/16 (2006.01) A61P 35/02 (2006.01)  C07D 211/18 (2006.01) C07D 211/22  (2006.01) C07D 211/26 (2006.01)  C07D 211/46 (2006.01) C07D 211/64  (2006.01) C07D 211/70 (2006.01)  C07D 221/04 (2006.01) C07D 223/16  (2006.01) C07D 243/08 (2006.01)  C07D 401/04 (2006.01) C07D 401/12  (2006.01) C07D 405/12 (2006.01)  C07D 413/04 (2006.01) C07D 413/12  (2006.01) C07D 413/14 (2006.01)  C07D 417/04 (2006.01) C07D 451/02  (2006.01) C07D 487/08 (2006.01)</p>	<p style="text-align: right;">[21] <b>3,219,889</b>  [13] A1</p> <p>[25] EN  [54] POSITIONING SYSTEM,  COMPUTER-IMPLEMENTED  POSITIONING METHOD,  COMPUTER PROGRAM AND  NON-VOLATILE DATA CARRIER  [54] SYSTEME DE POSITIONNEMENT,  PROCEDE DE POSITIONNEMENT  MIS EN OEUVRE PAR  ORDINATEUR, PROGRAMME  INFORMATIQUE ET SUPPORT DE  DONNEES NON VOLATILE</p> <p>[72] BAHLENBERG, PETER, SE  [72] ERIKSSON, GORAN, SE  [72] UMEGARD, ANDERS, SE  [71] DELAVAL HOLDING AB, SE  [85] 2023-11-21  [86] 2022-06-02 (PCT/SE2022/050541)  [87] (WO2022/260576)  [30] SE (2150732-2) 2021-06-10</p> <hr/> <p style="text-align: right;">[21] <b>3,219,892</b>  [13] A1</p> <p>[25] EN  [54] DELIVERY DEVICE WITH LEAD  SCREW INFUSION PUMP  [54] DISPOSITIF DE DISTRIBUTION  AYANT UNE POMPE DE  PERFUSION A VIS-MERE</p> <p>[72] ANDERSON, NICHOLAS PAUL, US  [71] BECTON, DICKINSON AND  COMPANY, US  [85] 2023-11-21  [86] 2022-05-26 (PCT/US2022/031001)  [87] (WO2022/251405)  [30] US (63/193,506) 2021-05-26</p>	<p style="text-align: right;">[21] <b>3,219,893</b>  [13] A1</p> <p>[51] Int.Cl. B01J 31/20 (2006.01) B01J  31/24 (2006.01) C07C 29/156  (2006.01) C07C 45/50 (2006.01)  [25] EN  [54] PROCESS FOR CONVERTING  SYNTHESIS GAS TO HIGHER  ALCOHOLS  [54] PROCEDE DE CONVERSION DE  GAZ DE SYNTHESE EN ALCOOLS  SUPERIEURS</p> <p>[72] LEITNER, WALTER, DE  [72] PRIETO, GONZALO, ES  [72] JESKE, KAI, DE  [72] VORHOLT, ANDREAS JOHANNES,  DE  [72] ROSLER, THORSTEN, DE  [72] BELLEFLAMME, MAURICE, DE  [71] STUDIENGESELLSCHAFT KOHLE  GGMBH, DE  [71] MAX-PLANCK-GESELLSCHAFT  ZUR FORDERUNG DER  WISSENSCHAFTEN E.V., DE  [85] 2023-11-21  [86] 2022-07-01 (PCT/EP2022/068314)  [87] (WO2023/280720)  [30] EP (21183582.2) 2021-07-03</p> <hr/> <p style="text-align: right;">[21] <b>3,219,894</b>  [13] A1</p> <p>[51] Int.Cl. A61M 39/12 (2006.01)  [25] EN  [54] A URINARY CATHETER SYSTEM  AND METHOD FOR SELF-  CATHETERIZATION AND URINE  EXTRACTION  [54] SYSTEME DE CATHETER  URINAIRE ET PROCEDE D'AUTO-  CATHETERISATION ET  D'EXTRACTION D'URINE</p> <p>[72] AMAR, TOMER, IL  [72] MICHAELI, ARIEL, IL  [72] SHLOMO, AVI BEN, IL  [72] AMAR, LIOR, IL  [72] LEIBOVITCH, ILAN YOSSEF, IL  [71] ASIC MEDICAL BUHA LTD, IL  [85] 2023-11-21  [86] 2022-05-23 (PCT/IL2022/050539)  [87] (WO2022/249169)  [30] US (63/192,630) 2021-05-25  [30] US (63/257,071) 2021-10-18</p>
<p>[25] EN  [54] PHENYL UREA DERIVATIVE  [54] DERIVE DE PHENYLE UREE  [72] KOMIYA, MASAFUMI, JP  [72] UESUGI, SHUNICHIRO, JP  [72] IDEUE, EIJI, JP  [72] LEE, SHOUKOU, JP  [72] TANAKA, DAISUKE, JP  [72] FUNAKOSHI, YUTA, JP  [71] SUMITOMO DAINIPPON PHARMA  CO., LTD., JP  [85] 2023-11-21  [86] 2022-05-26 (PCT/JP2022/021531)  [87] (WO2022/250108)  [30] JP (2021-088034) 2021-05-26</p>		

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[21] **3,219,895**  
[13] A1

[51] **Int.Cl. C08K 3/34 (2006.01) C08J 11/06 (2006.01) C08L 23/06 (2006.01)**  
[25] EN  
[54] **COMPOSITIONS COMPRISING POST-CONSUMER RECYCLED RESIN AND ODOR-ACTIVE ZEOLITE TO MITIGATE TASTE AND ODOR**  
[54] **COMPOSITIONS COMPRENANT UNE RESINE RECYCLEE APRES CONSOMMATION ET UNE ZEOLITE ACTIVE CONTRE LES ODEURS POUR ATTENUER LE GOUT ET L'ODEUR**

[72] HAUSMANN, KARLHEINZ, CH  
[72] ABEBE, DANIEL G., US  
[72] GORIN, CRAIG F., US  
[72] TSAI, CAROL, US  
[72] WANG, JIN, US  
[72] MATTEUCCI, SCOTT T., US  
[72] SUN, KEFU, US  
[72] KILOS, BEATA A., US  
[71] DOW GLOBAL TECHNOLOGIES LLC, US  
[85] 2023-11-21  
[86] 2022-06-06 (PCT/US2022/032334)  
[87] (WO2022/260994)  
[30] US (63/197,552) 2021-06-07

[21] **3,219,896**  
[13] A1

[51] **Int.Cl. G01S 13/88 (2006.01)**  
[25] EN  
[54] **AUTONOMOUS GPR SYSTEM**  
[54] **SYSTEME GPR AUTONOME**

[72] POSER, MARCEL, CH  
[72] CABALLERO, ANTONIO, CH  
[72] ZOLLIKER, JONAS, CH  
[71] PROCEQ SA, CH  
[85] 2023-11-21  
[86] 2021-05-25 (PCT/EP2021/063903)  
[87] (WO2022/248024)

[21] **3,219,898**  
[13] A1

[51] **Int.Cl. A61P 27/02 (2006.01)**  
[25] EN  
[54] **RECOMBINANT ADENO-ASSOCIATED VIRUS HAVING VARIANT CAPSID, AND APPLICATION THEREOF**  
[54] **VIRUS ADENO-ASSOCIE RECOMBINANT AYANT UNE CAPSIDE VARIANTE, ET SON APPLICATION**

[72] ZHANG, WENTAO, CN  
[72] LIAO, CHENG, CN  
[72] NING, WEI, CN  
[71] SHANGHAI REGENEAL THERAPIES CO., LTD., CN  
[85] 2023-11-21  
[86] 2022-05-27 (PCT/CN2022/095422)  
[87] (WO2022/247917)  
[30] CN (202110594986.X) 2021-05-28

[21] **3,219,899**  
[13] A1

[25] EN  
[54] **ACIDIC AND ALKALINE CLEANING OF ION EXCHANGE SYSTEMS, SUCH AS WATER PURIFIERS, BY ION EXCHANGE RESIN**  
[54] **NETTOYAGE ACIDE ET ALCALIN DE SYSTEMES D'ECHANGE D'IONS, TELS QUE DES PURIFICATEURS D'EAU, PAR UNE RESINE ECHANGEUSE D'IONS**

[72] ORNDAL, CARL-HENRY, SE  
[72] SANDBLAD, SOPHIE, SE  
[72] SENDELIUS, PETER, SE  
[72] NILSSON, MARKUS, SE  
[71] GAMBRO LUNDIA AB, SE  
[85] 2023-11-21  
[86] 2022-06-01 (PCT/EP2022/064891)  
[87] (WO2022/268461)  
[30] SE (2150800-7) 2021-06-22

[21] **3,219,900**  
[13] A1

[51] **Int.Cl. G06Q 40/04 (2012.01) H04L 69/28 (2022.01)**  
[25] EN  
[54] **FANOUT PROCESSOR**  
[54] **PROCESSEUR DE SORTANCE**

[72] PAUL, BIJOY, US  
[72] JOSHUA, JONATHAN, US  
[71] BGC PARTNERS, L.P., US  
[85] 2023-11-21  
[86] 2022-06-03 (PCT/US2022/072749)  
[87] (WO2022/261611)  
[30] US (17/343,042) 2021-06-09

[21] **3,219,901**  
[13] A1

[51] **Int.Cl. G01C 21/16 (2006.01)**  
[25] EN  
[54] **METHOD FOR RECORDING INSPECTION DATA**  
[54] **PROCEDE D'ENREGISTREMENT DE DONNEES D'INSPECTION**

[72] ZHANG, SHIHUA, SG  
[72] POSER, MARCEL, CH  
[72] CABALLERO, ANTONIO, CH  
[71] PROCEQ SA, CH  
[85] 2023-11-21  
[86] 2021-12-15 (PCT/EP2021/085822)  
[87] (WO2022/248076)  
[30] EP (PCT/EP2021/063895) 2021-05-25

[21] **3,219,903**  
[13] A1

[51] **Int.Cl. G01N 29/07 (2006.01) G01N 29/265 (2006.01)**  
[25] EN  
[54] **METHOD FOR NDT TESTING A SPECIMEN**  
[54] **PROCEDE DE TEST NDT D'UN ECHANTILLON**

[72] CIESLA, TOMASZ, CH  
[72] KUPCU, CENGIZ TUGSAV, CH  
[72] ASAGIKOZAN, RAMIN, CH  
[72] CABALLERO, ANTONIO, CH  
[71] PROCEQ SA, CH  
[85] 2023-11-21  
[86] 2021-05-25 (PCT/EP2021/063910)  
[87] (WO2022/248026)

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[21] **3,219,906**  
[13] A1

[51] **Int.Cl. H01M 6/52 (2006.01)**  
[25] EN  
[54] **APPARATUS FOR SEPARATING MATERIALS RECOVERED FROM BATTERIES**  
[54] **APPAREIL DE SEPARATION DE MATERIAUX RECUPERES A PARTIR DE BATTERIES**  
[72] BIEDERMAN, CHRISTOPHER JAMES, CA  
[72] LOVELL, MICHAEL JOSEPH, CA  
[72] PETTINGILL, JAMES, CA  
[72] MISIC, OLGA, CA  
[72] JOHNSTON, TIMOTHY GEORGE, CA  
[71] LI-CYCLE CORP., CA  
[85] 2023-11-21  
[86] 2022-05-26 (PCT/CA2022/050855)  
[87] (WO2022/246570)  
[30] US (63/194,350) 2021-05-28  
[30] US (63/236,009) 2021-08-23

[21] **3,219,907**  
[13] A1

[51] **Int.Cl. C07F 5/02 (2006.01) A61P 31/04 (2006.01) C07F 9/6596 (2006.01)**  
[25] EN  
[54] **PENICILLIN-BINDING PROTEIN INHIBITORS**  
[54] **INHIBITEURS DE PROTEINES DE LIAISON A LA PENICILLINE**  
[72] BURNS, CHRISTOPHER J., US  
[72] DAIGLE, DENIS, US  
[72] CHU, GUO-HUA, US  
[72] HAMRICK, JODIE, US  
[72] BOYD, STEVEN A., US  
[72] ZULLI, ALLISON L., US  
[72] CONDON, STEPHEN M., US  
[72] MYERS, CULLEN L., US  
[72] XU, ZHENRONG, US  
[72] UEHARA, TSUYOSHI, US  
[72] LINE, NATHAN, US  
[71] VENATORX PHARMACEUTICALS, INC., US  
[85] 2023-11-21  
[86] 2022-03-25 (PCT/US2022/021883)  
[87] (WO2022/250776)  
[30] US (63/193,326) 2021-05-26  
[30] US (63/284,572) 2021-11-30

[21] **3,219,908**  
[13] A1

[51] **Int.Cl. A62C 3/02 (2006.01)**  
[25] EN  
[54] **OVERLAND CONDUIT SYSTEM AND METHODS WITH APPLICATIONS IN WILDFIRE MITIGATION**  
[54] **SYSTEME ET PROCEDES DE CONDUIT PAR VOIE TERRESTRE AVEC DES APPLICATIONS DANS UNE ATTENUATION DE FEU DE FORET**  
[72] RICHARDSON, ALLAN STEWART, US  
[71] WILDFIRE ROBOTICS INC., CA  
[85] 2023-11-21  
[86] 2022-06-01 (PCT/CA2022/050874)  
[87] (WO2022/251957)  
[30] US (63/195,549) 2021-06-01

[21] **3,219,909**  
[13] A1

[51] **Int.Cl. C08J 11/06 (2006.01) H01M 6/52 (2006.01)**  
[25] EN  
[54] **SYSTEM AND METHOD FOR RECOVERING PLASTIC FROM BATTERY MATERIALS**  
[54] **SYSTEME ET PROCEDE DE RECUPERATION DE MATIERE PLASTIQUE A PARTIR DE MATERIAUX DE BATTERIE**  
[72] JOHNSTON, TIMOTHY GEORGE, CA  
[72] BIEDERMAN, CHRISTOPHER JAMES, CA  
[72] LOVELL, MICHAEL JOSEPH, CA  
[72] PETTINGILL, JAMES, CA  
[71] LI-CYCLE CORP., CA  
[85] 2023-11-21  
[86] 2022-05-26 (PCT/CA2022/050850)  
[87] (WO2022/246566)  
[30] US (63/194,350) 2021-05-28

[21] **3,219,911**  
[13] A1

[51] **Int.Cl. H01M 10/0525 (2010.01) C05D 1/02 (2006.01) C21C 5/36 (2006.01) C22B 34/22 (2006.01)**  
[25] EN  
[54] **PROCESS FOR TREATMENT OF A SODIUM SULFATE CONTAINING RESIDUE PROCESS STREAM OF A BATTERY MANUFACTURING FACILITY, A BATTERY RECYCLING FACILITY, OR A STEEL PRODUCTION PLANT**  
[54] **PROCEDE DE TRAITEMENT D'UN FLUX DE TRAITEMENT DE RESIDUS CONTENANT DU SULFATE DE SODIUM D'UNE INSTALLATION DE FABRICATION DE BATTERIES, D'UNE INSTALLATION DE RECYCLAGE DE BATTERIES OU D'UNE INSTALLATION DE PRODUCTION D'ACIE**  
[72] LIEDBERG, JAKOB, SE  
[71] CINIS FERTILIZER AB, SE  
[85] 2023-11-21  
[86] 2022-05-24 (PCT/SE2022/050503)  
[87] (WO2022/250599)  
[30] SE (2150661-3) 2021-05-25  
[30] SE (2151435-1) 2021-11-25  
[30] SE (2151520-0) 2021-12-13

[21] **3,219,912**  
[13] A1

[51] **Int.Cl. A24F 40/30 (2020.01) A24F 40/46 (2020.01) A24F 40/465 (2020.01) A24F 40/485 (2020.01) A24F 40/60 (2020.01) A24F 40/20 (2020.01)**  
[25] EN  
[54] **AEROSOL PROVISION DEVICE**  
[54] **DISPOSITIF DE DISTRIBUTION D'AEROSOL**  
[72] WARREN, LUKE, GB  
[71] NICOVENTURES TRADING LIMITED, GB  
[85] 2023-11-21  
[86] 2022-05-27 (PCT/EP2022/064474)  
[87] (WO2022/248707)  
[30] GB (2107718.5) 2021-05-28

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[21] **3,219,914**  
[13] A1

[25] EN  
[54] **NEEDLE SHIELD ASSEMBLY FOR A SYRINGE**  
[54] **ENSEMBLE DE PROTECTION D'AIGUILLE POUR UNE SERINGUE**  
[72] RIVIER, CEDRIC, FR  
[71] BECTON DICKINSON FRANCE, FR  
[85] 2023-11-21  
[86] 2022-05-24 (PCT/EP2022/064057)  
[87] (WO2022/248474)  
[30] EP (21305692.2) 2021-05-26

[21] **3,219,915**  
[13] A1

[51] **Int.Cl. B42D 25/324 (2014.01) B42D 25/351 (2014.01) B42D 25/36 (2014.01) B42D 25/378 (2014.01) B42D 25/435 (2014.01) B42D 25/45 (2014.01)**  
[25] EN  
[54] **ABLATIVE PRINTED METALLIC LAYER**  
[54] **COUCHE METALLIQUE IMPRIMEE SELON UNE TECHNIQUE D'ABLATION**  
[72] SIEGFRIED, CHRISTOF, FR  
[72] BOUSQUET, CHRISTOPHE, FR  
[71] THALES DIS FRANCE SAS, FR  
[85] 2023-11-21  
[86] 2022-06-02 (PCT/EP2022/065091)  
[87] (WO2022/253972)  
[30] EP (21305737.5) 2021-06-02

[21] **3,219,916**  
[13] A1

[51] **Int.Cl. G06F 3/06 (2006.01)**  
[25] EN  
[54] **MIGRATION OF PRIMARY AND SECONDARY STORAGE SYSTEMS**  
[54] **MIGRATION DE SYSTEMES DE STOCKAGE PRIMAIRE ET SECONDAIRE**  
[72] BLEA, DAVID, US  
[72] ROONEY, WILLIAM, US  
[71] INTERNATIONAL BUSINESS MACHINES CORPORATION, US  
[85] 2023-11-21  
[86] 2023-02-06 (PCT/IB2023/051030)  
[87] (WO2023/180821)  
[30] US (17/655,804) 2022-03-22

[21] **3,219,917**  
[13] A1

[25] EN  
[54] **DIRECT REDUCED IRON SYSTEM AND METHOD USING SYNTHETIC COMBUSTION AIR**  
[54] **SYSTEME ET PROCEDE DE REDUCTION DIRECTE DE FER UTILISANT DE L'AIR DE COMBUSTION SYNTHETIQUE**  
[72] MOTAMEDHASHEMI, MIRMOHAMMADYUSEF, US  
[71] NUCOR CORPORATION, US  
[85] 2023-11-21  
[86] 2022-05-20 (PCT/US2022/030259)  
[87] (WO2022/251059)  
[30] US (63/192,273) 2021-05-24

[21] **3,219,918**  
[13] A1

[51] **Int.Cl. B60B 27/02 (2006.01) B62M 6/40 (2010.01) B62M 9/04 (2006.01)**  
[25] EN  
[54] **WHEEL HUB**  
[54] **MOYEU DE ROUE**  
[72] THOMAS, ROSHAN, CA  
[72] GRASBY, JOSHUA R.E., CA  
[72] GRAYSTON, RYLAN HARRY, CA  
[71] BIKTRIX ENTERPRISES INC., CA  
[85] 2023-11-21  
[86] 2022-05-24 (PCT/IB2022/054858)  
[87] (WO2022/249065)  
[30] US (63/202,066) 2021-05-26

[21] **3,219,919**  
[13] A1

[51] **Int.Cl. H01L 29/12 (2006.01)**  
[25] EN  
[54] **COLLOIDAL QUANTUM-DOTS FOR ELECTROLUMINESCENT DEVICES AND METHODS OF PREPARING SAME**  
[54] **POINTS QUANTIQUES COLLOIDAUX POUR DISPOSITIFS ELECTROLUMINESCENTS ET LEURS PROCEDES DE PREPARATION**  
[72] SHAHALIZAD NAMIN, AFSHIN, CA  
[72] DAYNEKO, SERGEY V., CA  
[72] PAHLEVANINEZHAD, MAJID, CA  
[72] SCHERWITZ, SAM, CA  
[71] 10644137 CANADA INC., CA  
[85] 2023-11-21  
[86] 2022-04-08 (PCT/CA2022/050550)  
[87] (WO2023/193083)

[21] **3,219,920**  
[13] A1

[51] **Int.Cl. F24C 15/20 (2006.01)**  
[25] EN  
[54] **OIL FUME SENSOR AND KITCHEN APPLIANCE**  
[54] **CAPTEUR DE FUMEE D'HUILE ET APPAREIL DE CUISINE**  
[72] LIU, YULEI, CN  
[72] CHEN, YINZHI, CN  
[72] CHENG, GANG, CN  
[71] FOSHAN SHUNDE MIDEA WASHING APPLIANCES MANUFACTURING CO., LTD., CN  
[85] 2023-11-21  
[86] 2022-03-28 (PCT/CN2022/083470)  
[87] (WO2023/050741)  
[30] CN (202111149280.9) 2021-09-29  
[30] CN (202111149679.7) 2021-09-29  
[30] CN (202111149680.X) 2021-09-29  
[30] CN (202111149272.4) 2021-09-29

[21] **3,219,921**  
[13] A1

[51] **Int.Cl. A61F 2/76 (2006.01)**  
[25] FR  
[54] **DEVICE AND METHOD FOR ACQUIRING DIGITIZED IMPRESSIONS IN ORDER TO GENERATE A 3D MODEL OF A SOCKET FOR AN ABOVE-KNEE PROSTHESIS**  
[54] **DISPOSITIF ET METHODE POUR LA PRISE D'EMPREINTES PAR NUMERISATION POUR LA GENERATION D'UN MODELE 3D D'EMBOITURE DE PROTHESE FEMORALE**  
[72] CALVIER, ERWAN, FR  
[71] VYTRUVE, FR  
[85] 2023-11-21  
[86] 2022-05-16 (PCT/EP2022/063208)  
[87] (WO2022/243255)  
[30] FR (FR2105336) 2021-05-21

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[21] **3,219,922**  
[13] A1

[51] **Int.Cl. A61B 5/00 (2006.01) A61C 8/00 (2006.01) A61C 19/06 (2006.01)**

[25] EN

[54] **DENTAL PROSTHETIC DEVICE AND METHOD OF FORMING SAME**

[54] **DISPOSITIF PROTHETIQUE DENTAIRE ET SON PROCEDE DE FORMATION**

[72] MOZES, ALON, US  
[72] MOSES, DENNIS, US  
[72] BEUCKELAERS, ERIK PAUL FLOR, US

[71] NEOCIS INC., US

[85] 2023-11-21  
[86] 2022-05-24 (PCT/IB2022/054854)  
[87] (WO2022/249063)  
[30] US (63/194,791) 2021-05-28

[21] **3,219,923**  
[13] A1

[51] **Int.Cl. C07K 14/725 (2006.01) C07K 14/705 (2006.01)**

[25] EN

[54] **T CELL RECEPTORS TARGETING RAS MUTATIONS AND USES THEREOF**

[54] **RECEPTEURS DE LYMPHOCYTES T CIBLANT LES MUTATIONS RAS ET LEURS UTILISATIONS**

[72] KLEBANOFF, CHRISTOPHER A., US  
[72] CHANDRAN, SMITA S., US  
[71] MEMORIAL SLOAN-KETTERING CANCER CENTER, US

[85] 2023-11-21  
[86] 2022-05-25 (PCT/US2022/030814)  
[87] (WO2022/251283)  
[30] US (63/192,783) 2021-05-25

[21] **3,219,924**  
[13] A1

[51] **Int.Cl. G21C 15/04 (2006.01) B64G 1/40 (2006.01) G21C 15/28 (2006.01) G21D 5/02 (2006.01) G21D 7/04 (2006.01)**

[25] EN

[54] **THERMAL POWER REACTOR**

[54] **REACTEUR DE PUISSANCE THERMIQUE**

[72] MORRIS, PETER, FR  
[71] SOLETANCHE FREYSSINET S.A.S., FR

[85] 2023-11-21  
[86] 2022-05-23 (PCT/EP2022/063938)  
[87] (WO2022/248418)  
[30] GB (2107508.0) 2021-05-26

[21] **3,219,925**  
[13] A1

[51] **Int.Cl. C07D 405/04 (2006.01) C07D 405/14 (2006.01) C07D 413/04 (2006.01) C07D 417/04 (2006.01) C07D 471/04 (2006.01) C07D 487/04 (2006.01) C07D 491/048 (2006.01) C07D 513/04 (2006.01)**

[25] EN

[54] **ALLOSTERIC CHROMENONE INHIBITORS OF PHOSPHOINOSITIDE 3-KINASE (PI3K) FOR THE TREATMENT OF CANCER**

[54] **INHIBITEURS CHROMENONE ALLOSTERIQUES DE LA PHOSPHOINOSITIDE 3-KINASE (PI3K) POUR LE TRAITEMENT DU CANCER**

[72] ANDERSON, ERIN DANIELLE, US  
[72] ARONOW, SEAN DOUGLAS, US  
[72] BOYLES, NICHOLAS A., US  
[72] CHEN, XIAOHONG, US  
[72] DAWADI, SURENDRA, US  
[72] HICKEY, EUGENE R., US  
[72] IRVIN, THOMAS COMBS, US  
[72] KESICKI, EDWARD A., US  
[72] KNIGHT, JENNIFER LYNN, US  
[72] KOLAKOWSKI, GABRIELLE R., US  
[72] KUMAR, MANOJ, US  
[72] LONG, KATELYN FRANCES, US  
[72] MAYNE, CHRISTOPHER GLENN, US

[72] MCLEAN, JOHNATHAN ALEXANDER, US

[72] POTOTSCHNIG, GERIT MARIA, US  
[72] WANG, HUA-YU, US  
[72] WELCH, MICHAEL BRIAN, US  
[72] WIDJAJA, TIEN, US  
[71] PETRA PHARMA CORPORATION, US

[85] 2023-11-21  
[86] 2022-05-26 (PCT/US2022/031112)  
[87] (WO2022/251482)  
[30] US (63/193,917) 2021-05-27  
[30] US (63/227,493) 2021-07-30  
[30] US (63/250,592) 2021-09-30  
[30] US (63/253,352) 2021-10-07

[21] **3,219,926**  
[13] A1

[51] **Int.Cl. F24F 1/22 (2011.01) F24F 1/24 (2011.01)**

[25] EN

[54] **ELECTRIC CONTROL BOX, AIR CONDITIONER OUTDOOR UNIT, AND AIR CONDITIONER**

[54] **BOITIER DE COMMANDE ELECTRIQUE, UNITE D'EXTERIEUR DE CLIMATISEUR, ET CLIMATISEUR**

[72] WANG, GUOCHUN, CN  
[72] SONG, KAIQUAN, CN  
[72] XU, AN, CN  
[72] LUO, HUADONG, CN  
[72] CHEN, TINGBO, CN  
[72] LI, HONGWEI, CN  
[71] GD MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN

[71] HEFEI MIDEA HEATING & VENTILATING EQUIPMENT CO., LTD., CN

[85] 2023-11-21  
[86] 2022-07-26 (PCT/CN2022/108031)  
[87] (WO2023/016252)  
[30] CN (202110904558.2) 2021-08-07  
[30] CN (202121839215.4) 2021-08-07  
[30] CN (202121839197.X) 2021-08-07

[21] **3,219,927**  
[13] A1

[51] **Int.Cl. C07C 211/29 (2006.01)**

[25] EN

[54] **ARGININE METHYLTRANSFERASE INHIBITOR AND USE THEREOF**

[54] **INHIBITEUR DE L'ARGININE METHYLTRANSFERASE ET SON UTILISATION**

[72] FU, XINGNIAN, CN  
[72] WU, HAIPING, CN  
[72] WANG, MENG, CN  
[72] MI, YUAN, CN  
[72] SHI, HUI, CN  
[72] GUO, JIANNAN, CN  
[71] CYTOSINLAB THERAPEUTICS CO., LTD., CN

[85] 2023-11-21  
[86] 2022-05-18 (PCT/CN2022/093688)  
[87] (WO2022/242696)  
[30] CN (202110560615.X) 2021-05-21  
[30] CN (202110875453.9) 2021-07-30

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[21] **3,219,928**  
[13] A1

[51] **Int.Cl. H04W 28/26 (2009.01) H04W 72/12 (2023.01)**

[25] EN

[54] **WIRELESS COMMUNICATION METHODS, STATION DEVICES, AND ACCESS POINT DEVICES**

[54] **PROCEDES DE COMMUNICATION SANS FIL, DISPOSITIFS DE SITE ET DISPOSITIFS DE POINT D'ACCES**

[72] ZHOU, PEI, CN

[72] HUANG, LEI, SG

[71] GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD., CN

[85] 2023-11-21

[86] 2021-06-21 (PCT/CN2021/101336)

[87] (WO2022/266815)

[21] **3,219,929**  
[13] A1

[51] **Int.Cl. C08L 67/06 (2006.01) C08K 3/26 (2006.01) C08K 3/40 (2006.01)**

[25] EN

[54] **FORMULA FOR ANTI-CORROSION AND ANTI-ULTRAVIOLET MATERIAL**

[54] **FORMULE D'UN MATERIAU ANTI-CORROSION ET ANTI-ULTRAVIOLETS**

[72] QI, YITONG, CN

[72] DENG, MIN, CN

[72] XIE, SHIHONG, CN

[71] CREATIVE MOTOR TECHNOLOGY (DONGGUAN) CO., LTD., CN

[85] 2023-11-21

[86] 2022-08-16 (PCT/CN2022/112871)

[87] (WO2023/168907)

[30] CN (202210221570.8) 2022-03-07

[21] **3,219,930**  
[13] A1

[51] **Int.Cl. B29C 55/06 (2006.01) C08L 23/04 (2006.01) D01D 5/253 (2006.01) D01D 5/42 (2006.01) D05C 17/02 (2006.01)**

[25] EN

[54] **RECYCLABLE ARTIFICIAL TURF AND HDPE BACKING LAYER FOR RECYCLABLE ARTIFICIAL TURF**

[54] **GAZON ARTIFICIEL RECYCLABLE ET COUCHE DE SUPPORT HDPE POUR GAZON ARTIFICIEL RECYCLABLE**

[72] YOUNG, COLIN, NL

[72] SETHUNATH, SALIL, NL

[72] HEERINK, HEIN ANTON, NL

[72] VOGEL, MICHAEL RENE, NL

[72] KOLKMAN, NIELS GERHARDUS, NL

[71] TEN CATE THIOLON B.V., NL

[85] 2023-11-21

[86] 2022-05-20 (PCT/EP2022/063809)

[87] (WO2022/243551)

[30] NL (2028272) 2021-05-21

[21] **3,219,931**  
[13] A1

[51] **Int.Cl. H02K 7/02 (2006.01) H02K 7/18 (2006.01)**

[25] EN

[54] **BRUSHLESS GENERATOR FOR USE IN FITNESS EQUIPMENT**

[54] **GENERATEUR SANS BALAI DESTINE A ETRE UTILISE DANS UN EQUIPEMENT DE CONDITIONNEMENT PHYSIQUE**

[72] QI, YITONG, CN

[72] DENG, MIN, CN

[71] CREATIVE MOTOR TECHNOLOGY (DONGGUAN) CO., LTD., CN

[85] 2023-11-21

[86] 2022-08-22 (PCT/CN2022/114044)

[87] (WO2023/165099)

[30] CN (202210212529.4) 2022-03-04

[21] **3,219,932**  
[13] A1

[25] EN

[54] **CIRCULAR RNA COMPOSITIONS AND METHODS**

[54] **METHODES ET COMPOSITIONS D'ARN CIRCULAIRE**

[72] WESSELHOEFT, ROBERT ALEXANDER, US

[72] OTT, KRISTEN, US

[72] BARNES, THOMAS, US

[72] MOTZ, GREGORY, US

[72] BECKER, AMY M., US

[72] HORHOTA, ALLEN T., US

[72] GOODMAN, BRIAN, US

[72] SHU, HUAN, US

[72] SHIVASHANKAR, VARUN, US

[71] ORNA THERAPEUTICS, INC., US

[85] 2023-11-21

[86] 2022-06-10 (PCT/US2022/033091)

[87] (WO2022/261490)

[30] US (63/209,271) 2021-06-10

[30] US (63/311,923) 2022-02-18

[21] **3,219,933**  
[13] A1

[51] **Int.Cl. B29C 35/02 (2006.01) B33Y 10/00 (2015.01) B33Y 80/00 (2015.01) B29C 37/00 (2006.01) B29C 39/00 (2006.01) B29C 39/10 (2006.01) B29C 64/106 (2017.01)**

[25] EN

[54] **FABRICATION METHOD OF TRANSPARENT 3D POLYDIMETHYLSILOXANE DEVICES WITH POLYCAPROLACTONE MOLDS**

[54] **PROCEDE DE FABRICATION DE DISPOSITIFS A BASE DE POLYDIMETHYLSILOXANE 3D TRANSPARENTS AVEC DES MOULES DE POLYCAPROLACTONE**

[72] ALZAHID, YARA, SA

[72] ALSOFI, ABDULKAREEM, SA

[71] SAUDI ARABIAN OIL COMPANY, SA

[85] 2023-11-21

[86] 2022-05-02 (PCT/US2022/027307)

[87] (WO2022/245533)

[30] US (17/326,741) 2021-05-21

## Demandes PCT entrant en phase nationale

<p>[21] <b>3,219,934</b> [13] A1</p> <p>[51] <b>Int.Cl. A61K 51/10 (2006.01)</b> [25] EN [54] <b>COMPOSITIONS AND METHODS FOR THE TREATMENT OF PROSTATE CANCER</b> [54] <b>COMPOSITIONS ET PROCEDES POUR LE TRAITEMENT DU CANCER DE LA PROSTATE</b> [72] SALTER, RHYS, US [72] SAXENA, NEHA, US [72] DIVGI, CHAITANYA, US [72] O'DONOGHUE, JOSEPH, US [71] JANSSEN BIOTECH, INC., US [85] 2023-11-21 [86] 2022-05-25 (PCT/IB2022/054891) [87] (WO2022/249089) [30] US (63/193,704) 2021-05-27 [30] US (63/335,761) 2022-04-28</p>	<p>[21] <b>3,219,936</b> [13] A1</p> <p>[25] EN [54] <b>PHOTOTHERAPEUTIC APPARATUS</b> [54] <b>APPAREIL PHOTOTHERAPEUTIQUE</b> [72] BROENG, JENS, DK [72] CARSTENSEN, MARCUS SCHULTZ, DK [72] FEIJOO CARRILLO, GUSTAVO, DK [72] NGUYEN, NGOC MAI, DK [71] DANMARKS TEKNISKE UNIVERSITET, DK [85] 2023-11-21 [86] 2022-07-05 (PCT/EP2022/068515) [87] (WO2023/280811) [30] EP (21183665.5) 2021-07-05</p>	<p>[21] <b>3,219,938</b> [13] A1</p> <p>[51] <b>Int.Cl. G01N 21/3504 (2014.01) B60K 28/06 (2006.01) G01N 33/497 (2006.01)</b> [25] EN [54] <b>METHOD AND SYSTEM FOR PREVENTING TAMPERING OF BREATH SAMPLE MEASUREMENTS</b> [54] <b>PROCEDE ET SYSTEME POUR EMPECHER L'ALTERATION DE MESURES D'ECHANTILLON D'HALEINE</b> [72] HOK, BERTIL, SE [72] LJUNGBLAD, JONAS, SE [71] SENSEAIR AB, SE [85] 2023-11-21 [86] 2022-05-18 (PCT/SE2022/050488) [87] (WO2022/250595) [30] SE (2150681-1) 2021-05-28</p>
<p>[21] <b>3,219,935</b> [13] A1</p> <p>[25] EN [54] <b>ENHANCING WATER TREATMENT RECOVERY FROM RETENTION POND AT FERTILIZER PLANTS</b> [54] <b>AMELIORATION DE LA RECUPERATION DU TRAITEMENT DES EAUX A PARTIR D'UN BASSIN DE RETENTION AU NIVEAU D'USINES D'ENGRAIS</b> [72] DUKES, SIMON P., US [72] GRIFFIS, JOSHUA, US [72] LIANG, LI-SHIANG, US [72] GOGOI, HARSHITA, US [72] DU, WENXIN, US [72] MALLMANN, THOMAS KENNETH, US [71] EVOQUA WATER TECHNOLOGIES LLC, US [85] 2023-11-21 [86] 2022-05-26 (PCT/US2022/031126) [87] (WO2022/251492) [30] US (63/193,787) 2021-05-27</p>	<p>[21] <b>3,219,937</b> [13] A1</p> <p>[51] <b>Int.Cl. B60L 53/00 (2019.01) B60L 53/20 (2019.01) B60L 55/00 (2019.01) H02K 47/08 (2006.01) H02M 7/30 (2006.01)</b> [25] EN [54] <b>CHARGING SYSTEM AND METHOD OF USING SAME</b> [54] <b>SYSTEME DE CHARGE ET SON PROCEDE D'UTILISATION</b> [72] BERGER, ARI, CA [72] HENGSTENBERGER, HARALD, DE [72] AMINI, JALAL, CA [71] HILLCREST ENERGY TECHNOLOGIES LTD., CA [85] 2023-11-21 [86] 2022-05-26 (PCT/CA2022/050859) [87] (WO2022/246573) [30] US (63/193,361) 2021-05-26</p>	<p>[21] <b>3,219,939</b> [13] A1</p> <p>[51] <b>Int.Cl. A61G 3/06 (2006.01)</b> [25] EN [54] <b>ARTICULATING ANTI-RATTLE DEVICE FOR A RAMP</b> [54] <b>DISPOSITIF ANTI-CLIQUETIS ARTICULE POUR RAMPE</b> [72] BETTCHER, ROBERT, US [72] PETERSON, KENNETH, US [71] THE BRAUN CORPORATION, US [85] 2023-11-21 [86] 2022-05-23 (PCT/US2022/030510) [87] (WO2022/251100) [30] US (63/192,155) 2021-05-24</p>

## PCT Applications Entering the National Phase

[21] **3,219,940**  
[13] A1

[51] **Int.Cl. C07D 209/16 (2006.01) A61K 31/4045 (2006.01) A61K 31/5383 (2006.01) C07D 403/04 (2006.01)**

[25] EN

[54] **HETEROCYCLIC COMPOUNDS AND METHODS OF PREPARATION THEREOF**

[54] **COMPOSES HETEROCYCLIQUES ET LEURS PROCEDES DE PREPARATION**

[72] KOZIKOWSKI, ALAN, US

[72] TUECKMANTEL, WERNER, US

[72] MCCORVY, JOHN, US

[72] LABAN, UROS, BR

[71] BRIGHT MINDS BIOSCIENCES INC., CA

[71] THE MEDICAL COLLEGE OF WISCONSIN INC., US

[85] 2023-11-21

[86] 2022-05-25 (PCT/CA2022/050833)

[87] (WO2022/246554)

[30] US (63/193,062) 2021-05-26

[30] US (63/309,735) 2022-02-14

[21] **3,219,941**  
[13] A1

[51] **Int.Cl. A61M 1/36 (2006.01) A61M 39/02 (2006.01)**

[25] EN

[54] **DETECTING AND MONITORING OXYGEN-RELATED EVENTS IN HEMODIALYSIS PATIENTS**

[54] **DETECTION ET SURVEILLANCE D'EVENEMENTS LIES A L'OXYGENE CHEZ DES PATIENTS EN HEMODIALYSE**

[72] CHERIF, ALHAJI, US

[72] GALUZIO, PAULO PANEQUE, US

[72] ZHANG, HANJIE, US

[72] KOTANKO, PETER, US

[71] FRESENIUS MEDICAL CARE HOLDINGS, INC., US

[85] 2023-11-10

[86] 2021-08-26 (PCT/US2021/047740)

[87] (WO2022/250718)

[30] US (63/192,622) 2021-05-25

[21] **3,219,942**  
[13] A1

[51] **Int.Cl. C12N 15/113 (2010.01) A61P 25/08 (2006.01)**

[25] EN

[54] **COMPOSITIONS TARGETING SODIUM CHANNEL 1.6**

[54] **COMPOSITIONS CIBLANT LE CANAL SODIQUE 1.6**

[72] AMBROSI, CHRISTINA, US

[72] WILLIAMS, LUIS, US

[72] LEWARCH, CAITLIN, US

[72] GERBER, DAVID, US

[72] MCMANUS, OWEN, US

[72] AGRAWAL, SUDHIR, US

[72] DEMPSEY, GRAHAM T., US

[71] Q-STATE BIOSCIENCES, INC., US

[85] 2023-11-10

[86] 2022-05-10 (PCT/US2022/028450)

[87] (WO2022/240795)

[30] US (63/186,342) 2021-05-10

[21] **3,219,943**  
[13] A1

[51] **Int.Cl. A61K 9/14 (2006.01) A61K 9/00 (2006.01) A61K 9/48 (2006.01) A61K 31/436 (2006.01) A61K 47/26 (2006.01) A61P 37/06 (2006.01)**

[25] EN

[54] **DRY POWDER FORMULATIONS OF TACROLIMUS FOR ADMINISTRATION BY INHALATION ONCE DAILY (QD)**

[54] **FORMULATIONS DE TACROLIMUS EN POUVRE SECHE POUR ADMINISTRATION PAR INHALATION UNE FOIS PAR JOUR (QD)**

[72] CHRISTENSEN, DALE J., US

[72] CREAM, CHRISTOPHER S., US

[72] KOLENG, JOHN J., US

[71] TFF PHARMACEUTICALS, INC., US

[85] 2023-11-10

[86] 2022-05-12 (PCT/US2022/028972)

[87] (WO2022/241105)

[30] US (63/187,774) 2021-05-12

[21] **3,219,945**  
[13] A1

[51] **Int.Cl. C21B 7/00 (2006.01) C21B 13/00 (2006.01) C21B 13/02 (2006.01) B01D 53/14 (2006.01)**

[25] EN

[54] **OPERATING METHOD OF A NETWORK OF PLANTS**

[54] **PROCEDE DE FONCTIONNEMENT D'UN RESEAU D'INSTALLATIONS**

[72] TSVIK, GEORGE, US

[72] BOULANOV, DMITRI, US

[72] REYES RODRIGUEZ, JON, ES

[72] CARRIER, ODILE, FR

[72] SALAME, SARAH, FR

[72] BARROS LORENZO, JOSE, FR

[72] ANDRADE, MARCELO, US

[72] LU, DENNIS, US

[71] ARCELORMITTAL, LU

[85] 2023-11-09

[86] 2021-05-26 (PCT/IB2021/054581)

[87] (WO2022/248914)

[21] **3,219,946**  
[13] A1

[51] **Int.Cl. A61B 34/10 (2016.01) A61B 34/20 (2016.01) A61B 90/00 (2016.01)**

[25] EN

[54] **MULTISCALE ULTRASOUND TRACKING AND DISPLAY**

[54] **SUIVI ET AFFICHAGE D'ECHOGRAPHIE A ECHELLES MULTIPLES**

[72] SOUTHWORTH, MICHAEL K., US

[72] ANDREWS, CHRISTOPHER MICHAEL, US

[72] SORIANO, IGNACIO, US

[72] HENRY, ALEXANDER BAIR, US

[72] SILVA, JONATHAN R., US

[72] SILVA, JENNIFER N. AVARI, US

[71] EXCERA INC., US

[85] 2023-11-10

[86] 2022-05-09 (PCT/US2022/028384)

[87] (WO2022/240770)

[30] US (63/186,393) 2021-05-10



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[21] **3,219,947**  
[13] A1

[51] **Int.Cl. A61B 5/00 (2006.01) A61B 5/0215 (2006.01) A61F 2/24 (2006.01) A61M 27/00 (2006.01)**

[25] EN

[54] **IMPLANT-COUPLED SENSORS**

[54] **CAPTEURS COUPLES A UN IMPLANT**

[72] VALDEZ, MICHAEL G., US

[72] HINZMAN, JULIE ANN, US

[72] MAHMOUDI, RANI ABDULLAH, US

[72] CHANG, ARVIN T., US

[72] AMEFIA, KOKOU ANANI, US

[72] MCCONNELL, STEVEN, US

[72] RABBAH, JEAN-PIERRE MICHEL, US

[72] POOL, SCOTT LOUIS, US

[71] EDWARDS LIFESCIENCES CORPORATION, US

[85] 2023-11-10

[86] 2022-05-20 (PCT/US2022/030200)

[87] (WO2022/246163)

[30] US (63/191,534) 2021-05-21

[30] US (63/224,286) 2021-07-21

[30] US (63/225,039) 2021-07-23

[30] US (63/225,689) 2021-07-26

[30] US (63/235,038) 2021-08-19

[21] **3,219,948**  
[13] A1

[51] **Int.Cl. B60R 21/38 (2011.01)**

[25] EN

[54] **PEDESTRIAN PROTECTION AUTOMOTIVE HINGE**

[54] **CHARNIERE D'AUTOMOBILE POUR PROTECTION DE PIETON**

[72] MCDONALD, GEORGE, GB

[72] CURTIS, CHESTER, GB

[72] AVERMATE, STEVEN, BE

[71] MULTIMATIC, INC., CA

[85] 2023-11-22

[86] 2022-05-25 (PCT/IB2022/054884)

[87] (WO2022/249083)

[30] DE (10 2021 205 306.8) 2021-05-25

[21] **3,219,949**  
[13] A1

[51] **Int.Cl. H02K 15/04 (2006.01) H02K 3/12 (2006.01) H02K 15/06 (2006.01)**

[25] EN

[54] **SYSTEM FOR ASSEMBLING A STATOR OR ROTOR WINDING, RELATED ASSEMBLING METHOD AND ASSEMBLING TOOL**

[54] **SYSTEME D'ASSEMBLAGE D'UN ENROULEMENT DE STATOR OU DE ROTOR, PROCEDE D'ASSEMBLAGE ET OUTIL D'ASSEMBLAGE**

[54] **CORRESPONDANTS**

[72] RUGGIERI, GIOVANNI, IT

[72] MICUCCI, MAURILIO, IT

[72] RANALLI, GIUSEPPE, IT

[71] TECNOMATIC S.P.A., IT

[85] 2023-11-09

[86] 2022-12-21 (PCT/IB2022/062623)

[87] (WO2023/119193)

[30] IT (102021000032159) 2021-12-22

[21] **3,219,950**  
[13] A1

[51] **Int.Cl. C07K 1/16 (2006.01) C07K 16/18 (2006.01) C07K 17/04 (2006.01) C12N 15/13 (2006.01)**

[25] EN

[54] **PURIFICATION METHOD OF ANTIBODY COMPOSITION**

[54] **PROCEDE DE PURIFICATION D'UNE COMPOSITION D'ANTICORPS**

[72] YOSHIMORI, TAKAYUKI, JP

[72] IARUSSO, STEFAN, DE

[71] CHIOME BIOSCIENCE INC., JP

[85] 2023-11-09

[86] 2022-05-06 (PCT/JP2022/019548)

[87] (WO2022/239704)

[30] JP (2021-079977) 2021-05-10

[21] **3,219,951**  
[13] A1

[51] **Int.Cl. C07K 1/34 (2006.01) B01D 61/14 (2006.01) B01D 61/58 (2006.01) B01D 63/02 (2006.01) B01D 69/00 (2006.01) B01D 69/02 (2006.01) B01D 69/08 (2006.01) C12M 1/12 (2006.01)**

[25] EN

[54] **METHOD AND DEVICE FOR ISOLATING AND PURIFYING MINUTE USEFUL SUBSTANCE**

[54] **PROCEDE ET APPAREILLAGE POUR LA SEPARATION ET LA PURIFICATION D'UNE SUBSTANCE UTILE MINUSCULE**

[72] NAKATSUKA, SHUJI, JP

[71] DAICEN MEMBRANE-SYSTEMS LTD., JP

[85] 2023-11-09

[86] 2022-05-24 (PCT/JP2022/021194)

[87] (WO2022/250036)

[30] JP (2021-089878) 2021-05-28

[21] **3,219,953**  
[13] A1

[51] **Int.Cl. H01M 10/0567 (2010.01) H01M 10/052 (2010.01)**

[25] EN

[54] **NON-AQUEOUS ELECTROLYTE INCLUDING ADDITIVE FOR NON-AQUEOUS ELECTROLYTE, AND LITHIUM SECONDARY BATTERY INCLUDING THE NON-AQUEOUS ELECTROLYTE**

[54] **ELECTROLYTE NON AQUEUX CONTENANT UN ADDITIF ELECTROLYTIQUE NON AQUEUX, ET BATTERIE SECONDAIRE AU LITHIUM LE COMPRENANT**

[72] YEOM, CHUL EUN, KR

[72] LEE, CHUL HAENG, KR

[72] LEE, KYUNG MI, KR

[72] LEE, JUNG MIN, KR

[72] HAN, JUNG GU, KR

[71] LG ENERGY SOLUTION, LTD., KR

[85] 2023-11-09

[86] 2022-11-11 (PCT/KR2022/017738)

[87] (WO2023/085843)

[30] KR (10-2021-0155935) 2021-11-12

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[21] **3,219,954**  
[13] A1

[51] **Int.Cl. B63H 20/28 (2006.01) B63H 20/00 (2006.01) B63H 20/32 (2006.01) B63H 21/17 (2006.01) B63H 23/02 (2006.01)**

[25] EN  
[54] **DRIVE SYSTEM**  
[54] **SYSTEME D'ENTRAINEMENT**  
[72] PESENDORFER, HORST, AT  
[71] PESENDORFER, HORST, AT  
[85] 2023-11-10  
[86] 2022-05-07 (PCT/AT2022/060161)  
[87] (WO2022/236352)  
[30] AT (A50373/2021) 2021-05-14

[21] **3,219,955**  
[13] A1

[51] **Int.Cl. C10G 45/62 (2006.01) C10G 65/04 (2006.01) C10L 1/02 (2006.01)**

[25] EN  
[54] **PROCESS FOR BIORENEWABLE LIGHT PARAFFINIC KEROSENE AND SUSTAINABLE AVIATION FUEL**  
[54] **PROCEDE POUR LA PRODUCTION DE KEROSENE PARAFFINIQUE LEGER BIORENOUVELABLE ET DE CARBURANT AVIATION DURABLE**  
[72] ABHARI, RAMIN, US  
[72] HAVERLY, MARTIN, US  
[72] BERG, MASON, US  
[72] SLADE, DAVID A., US  
[72] TOMLINSON, H. LYNN, US  
[72] FISHER, TREVOR, US  
[71] REG SYNTHETIC FUELS, LLC, US  
[85] 2023-11-22  
[86] 2022-06-01 (PCT/US2022/031827)  
[87] (WO2022/256443)  
[30] US (63/195,665) 2021-06-01

[21] **3,219,956**  
[13] A1

[51] **Int.Cl. B65G 13/00 (2006.01) B65G 21/20 (2006.01) B65G 27/12 (2006.01) B65G 27/32 (2006.01) B65G 43/08 (2006.01)**

[25] EN  
[54] **SYSTEMS AND METHODS FOR ASSISTING IN OBJECT GRASPING FROM CONTAINERS IN OBJECT PROCESSING SYSTEMS**  
[54] **SYSTEMES ET PROCEDES D'AIDE A LA PREHENSION D'OBJETS A PARTIR DE RECIPIENTS DANS DES SYSTEMES DE TRAITEMENT D'OBJETS**  
[72] ANDERSON, BRETTON, US  
[72] AMEND, JOHN RICHARD, JR., US  
[71] BERKSHIRE GREY OPERATING COMPANY, INC., US  
[85] 2023-11-10  
[86] 2022-05-12 (PCT/US2022/028917)  
[87] (WO2022/241079)  
[30] US (63/187,732) 2021-05-12

[21] **3,219,958**  
[13] A1

[51] **Int.Cl. H01H 9/54 (2006.01) H01H 33/59 (2006.01) H01H 71/12 (2006.01)**

[25] FR  
[54] **ELECTRICAL PROTECTION APPARATUSES AND SYSTEMS**  
[54] **APPAREILS ET SYSTEMES DE PROTECTION ELECTRIQUE**  
[72] DOMEJEAN, ERIC, FR  
[72] BRENGUIER, JEROME, FR  
[72] COURT, FREDERIC, FR  
[71] SCHNEIDER ELECTRIC INDUSTRIES SAS, FR  
[85] 2023-11-10  
[86] 2022-05-19 (PCT/EP2022/063542)  
[87] (WO2022/243419)  
[30] FR (FR2105287) 2021-05-20

[21] **3,219,959**  
[13] A1

[51] **Int.Cl. A61B 5/00 (2006.01) A61B 5/0215 (2006.01) A61F 2/24 (2006.01) A61M 27/00 (2006.01)**

[25] EN  
[54] **SHUNT BARREL SENSOR IMPLANT ANCHORING**  
[54] **ANCRAGE D'IMPLANT DE CAPTEUR DE CYLINDRE DE DERIVATION**  
[72] MCCONNELL, STEVEN, US  
[72] VALDEZ, MICHAEL G., US  
[72] CHANG, ARVIN T., US  
[72] AMEFIA, KOKOU ANANI, US  
[72] RABBAH, JEAN-PIERRE MICHEL, US  
[72] MAHMOUDI, RANI ABDULLAH, US  
[72] HINZMAN, JULIE ANN, US  
[72] POOL, SCOTT LOUIS, US  
[71] EDWARDS LIFESCIENCES CORPORATION, US  
[85] 2023-11-10  
[86] 2022-05-20 (PCT/US2022/030206)  
[87] (WO2022/246166)  
[30] US (63/191,534) 2021-05-21  
[30] US (63/224,286) 2021-07-21  
[30] US (63/225,039) 2021-07-23  
[30] US (63/225,689) 2021-07-26  
[30] US (63/235,038) 2021-08-19

[21] **3,219,960**  
[13] A1

[51] **Int.Cl. A61P 35/00 (2006.01) C07K 16/28 (2006.01)**

[25] EN  
[54] **COMPOSITIONS AND METHODS FOR TREATING LUNG CANCER**  
[54] **COMPOSITIONS ET METHODES POUR LE TRAITEMENT DU CANCER DU POUMON**  
[72] JARKOWSKI, III, ANTHONY, US  
[72] DENNIS, PHILLIP, US  
[72] TRANI, LEO, US  
[72] NEWTON, MICHAEL, US  
[72] SHIRE, NORAH, US  
[71] ASTRAZENECA AB, SE  
[85] 2023-11-10  
[86] 2022-05-24 (PCT/EP2022/064061)  
[87] (WO2022/248478)  
[30] US (63/192,217) 2021-05-24

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[21] **3,219,961**  
[13] A1

[51] **Int.Cl. C21B 13/00 (2006.01) C21B 13/02 (2006.01)**

[25] EN

[54] **METHOD FOR MANUFACTURING DIRECT REDUCED IRON AND DRI MANUFACTURING EQUIPMENT**

[54] **PROCEDE DE FABRICATION D'EQUIPEMENT DE FABRICATION DE DRI ET DE FER A REDUCTION DIRECTE**

[72] TSVIK, GEORGE, US

[72] BOULANOV, DMITRI, US

[72] REYES RODRIGUEZ, JON, ES

[72] CARRIER, ODILE, FR

[72] SALAME, SARAH, FR

[72] BARROS LORENZO, JOSE, FR

[72] ANDRADE, MARCELO, US

[72] LU, DENNIS, US

[71] ARCELORMITTAL, LU

[85] 2023-11-10

[86] 2021-05-18 (PCT/IB2021/054252)

[87] (WO2022/243724)

[21] **3,219,962**  
[13] A1

[51] **Int.Cl. A01K 31/04 (2006.01) B65G 45/16 (2006.01)**

[25] EN

[54] **SCRAPER APPARATUS**

[54] **APPAREIL DE RACLAGE**

[72] CATTAPAN, MICHELE, IT

[71] TECNO POULTRY EQUIPMENT S.P.A, IT

[85] 2023-11-10

[86] 2022-05-23 (PCT/IB2022/054795)

[87] (WO2022/259067)

[30] GB (2108164.1) 2021-06-08

[21] **3,219,963**  
[13] A1

[51] **Int.Cl. H01M 10/04 (2006.01) H01M 10/058 (2010.01)**

[25] EN

[54] **AN APPARATUS AND METHOD FOR ASSEMBLING A BATTERY PACK FOR POWERING ELECTRIC TRACTION MOTORS OF ELECTRIC MOTOR-VEHICLES**

[54] **APPAREIL ET PROCEDE D'ASSEMBLAGE DE BLOC-BATTERIE POUR ALIMENTER DES MOTEURS ELECTRIQUES DE TRACTION DE VEHICULES A MOTEUR ELECTRIQUE**

[72] TOMASI, DANIELE, IT

[72] RUFFINO, DANIELE, IT

[72] BERTOLO, TIZIANO, IT

[71] COMAU S.P.A., IT

[85] 2023-11-10

[86] 2022-05-24 (PCT/IB2022/054834)

[87] (WO2022/249049)

[30] IT (102021000013649) 2021-05-26

[21] **3,219,964**  
[13] A1

[51] **Int.Cl. C21B 13/00 (2006.01) C21B 13/02 (2006.01)**

[25] EN

[54] **METHOD FOR MANUFACTURING DIRECT REDUCED IRON AND DRI MANUFACTURING EQUIPMENT**

[54] **PROCEDE DE FABRICATION DE FER A REDUCTION DIRECTE ET EQUIPEMENT DE FABRICATION DE DRI**

[72] TSVIK, GEORGE, US

[72] BOULANOV, DMITRI, US

[72] REYES RODRIGUEZ, JON, ES

[72] CARRIER, ODILE, FR

[72] SALAME, SARAH, FR

[72] BARROS LORENZO, JOSE, FR

[72] ANDRADE, MARCELO, US

[72] LU, DENNIS, US

[71] ARCELORMITTAL, LU

[85] 2023-11-10

[86] 2021-05-18 (PCT/IB2021/054256)

[87] (WO2022/243725)

[21] **3,219,965**  
[13] A1

[51] **Int.Cl. C07K 14/50 (2006.01) C07K 14/71 (2006.01)**

[25] EN

[54] **HUMAN FIBROBLAST GROWTH FACTOR 1 (FGF-1) MUTEINS, THEIR DIMERS AND USES**

[54] **MUTEINES DU FACTEUR DE CROISSANCE DES FIBROBLASTES 1 (FGF-1) HUMAIN, LEURS DIMERES ET UTILISATIONS ASSOCIEES**

[72] OTLEWSKI, JACEK JOZEF, PL

[72] ZAKRZEWSKA, MA?GORZATA URSZULA, PL

[72] KROWARSCH, DANIEL RAFA?, PL

[72] CZYREK, ALEKSANDRA ANNA, PL

[72] JANISZEWSKI, MICHA? MIECZYSAW, PL

[72] PIECZYKOLAN, JERZY SZCZEPAN, PL

[72] DRZAZGA, EWA, PL

[72] BAZYD?O-GUZENDA, KATARZYNA, PL

[72] BUDA, PAWE?, PL

[72] WIECZOREK, MACIEJ, PL

[71] CELON PHARMA S.A., PL

[71] UNIWERSYTET WROCLAWSKI, PL

[85] 2023-11-22

[86] 2022-05-25 (PCT/PL2022/050033)

[87] (WO2022/250556)

[30] PL (P.438001) 2021-05-26

[21] **3,219,966**  
[13] A1

[51] **Int.Cl. A61K 31/417 (2006.01) A61K 31/4184 (2006.01) A61K 31/517 (2006.01)**

[25] EN

[54] **IMIDAZOLE-CONTAINING INHIBITORS OF ALK2 KINASE**

[54] **INHIBITEURS DE LA KINASE ALK2 CONTENANT DE L'IMIDAZOLE**

[72] KOTIAN, PRAVIN L., US

[72] BABU, YARLAGADDA S., US

[72] ZHANG, WEIHE, US

[72] LV, WEI, US

[72] LU, PENG-CHENG, US

[72] SPAULDING, ANDREW E., US

[72] RAMAN, KRISHNAN, US

[71] BIOCRYST PHARMACEUTICALS, INC., US

[85] 2023-11-10

[86] 2022-05-24 (PCT/US2022/030690)

[87] (WO2022/251188)

[30] US (63/192,822) 2021-05-25

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[21] **3,219,968**  
[13] A1

[25] EN  
[54] **ELECTRICAL HEATER WITH CATALYTIC ACTIVITY**  
[54] **APPAREIL DE CHAUFFAGE ELECTRIQUE A ACTIVITE CATALYTIQUE**  
[72] OSTBERG, MARTIN, DK  
[71] TOPSOE A/S, DK  
[85] 2023-11-22  
[86] 2022-05-25 (PCT/EP2022/064264)  
[87] (WO2022/248581)  
[30] EP (21176587.0) 2021-05-28

[21] **3,219,969**  
[13] A1

[51] **Int.Cl. G01N 33/574 (2006.01) A61K 39/00 (2006.01)**  
[25] EN  
[54] **METHODS AND COMPOSITIONS FOR MONITORING THE TREATMENT OF RELAPSED AND/OR REFRACTORY MULTIPLE MYELOMA**  
[54] **PROCEDES ET COMPOSITIONS POUR SURVEILLER LE TRAITEMENT D'UN MYELOME MULTIPLE RECIDIVANT ET/OU REFRACTAIRE**  
[72] PILLARISSETTI, KODANDARAM, US  
[72] GIRGIS, SUZETTE, US  
[72] GOLDBERG, JENNA, US  
[72] WANG LIN, SHUN XIN, US  
[71] JANSSEN BIOTECH, INC., US  
[85] 2023-11-10  
[86] 2022-05-11 (PCT/US2022/072247)  
[87] (WO2022/241430)  
[30] US (63/187,344) 2021-05-11

[21] **3,219,970**  
[13] A1

[51] **Int.Cl. G01R 31/392 (2019.01) G01R 31/367 (2019.01) G01R 31/389 (2019.01) H01M 10/48 (2006.01) H02J 7/00 (2006.01)**  
[25] EN  
[54] **BATTERY PERFORMANCE EVALUATION DEVICE AND BATTERY PERFORMANCE EVALUATION METHOD**  
[54] **DISPOSITIF D'EVALUATION DE PERFORMANCES DE BATTERIE ET PROCEDE D'EVALUATION DE PERFORMANCES DE BATTERIE**  
[72] MUNAKATA, ICHIRO, JP  
[72] IGARI, SHUNTARO, JP  
[72] TANNO, SATOSHI, JP  
[72] SHOJI, HIDEKI, JP  
[71] TOYO SYSTEM CO., LTD., JP  
[85] 2023-11-10  
[86] 2022-03-01 (PCT/JP2022/008648)  
[87] (WO2022/239391)  
[30] JP (2021-080843) 2021-05-12

[21] **3,219,971**  
[13] A1

[51] **Int.Cl. C07K 14/50 (2006.01) C07K 14/71 (2006.01)**  
[25] EN  
[54] **HUMAN FIBROBLAST GROWTH FACTOR 1 (FGF-1) MUTEINS, THEIR DIMERS AND USES**  
[54] **MUTEINES DU FACTEUR DE CROISSANCE DES FIBROBLASTES 1 (FGF-1) HUMAIN, LEURS DIMERES ET UTILISATIONS ASSOCIEES**  
[72] OTLEWSKI, JACEK JOZEF, PL  
[72] ZAKRZEWSKA, MA?GORZATA URSZULA, PL  
[72] KROWARSCH, DANIEL RAFA?, PL  
[72] CZYREK, ALEKSANDRA ANNA, PL  
[72] JANISZEWSKI, MICHA? MIECZYS?AW, PL  
[72] PIECZYKOLAN, JERZY SZCZEPAN, PL  
[72] DRZAZGA, EWA, PL  
[72] BAZYD?O-GUZENDA, KATARZYNA, PL  
[72] BUDA, PAWE?, PL  
[72] WIECZOREK, MACIEJ, PL  
[71] CELON PHARMA S.A., PL  
[71] UNIWERSYTET WROC?AWSKI, PL  
[85] 2023-11-22  
[86] 2022-05-25 (PCT/PL2022/050032)  
[87] (WO2022/250555)  
[30] PL (P.438001) 2021-05-26

[21] **3,219,972**  
[13] A1

[51] **Int.Cl. E21B 33/127 (2006.01) E21B 7/28 (2006.01) E21B 23/01 (2006.01)**  
[25] EN  
[54] **GROUT FREE EXPANDABLE STANDPIPE**  
[54] **COLONNE MONTANTE DILATABLE EXEMPT DE COULIS**  
[72] ADAMS, JOEL EUGENE, US  
[72] KOSOROK, IVAN ANDREJ, US  
[71] INFLATABLE PACKERS INTERNATIONAL LLC, US  
[85] 2023-11-22  
[86] 2022-05-23 (PCT/US2022/030505)  
[87] (WO2022/251098)  
[30] US (63/192,163) 2021-05-24

[21] **3,219,974**  
[13] A1

[51] **Int.Cl. B66C 23/70 (2006.01) B66C 13/46 (2006.01)**  
[25] EN  
[54] **METHOD FOR OPEN-LOOP AND/OR CLOSED-LOOP CONTROL OF A VEHICLE-MOUNTED LIFTING GEAR**  
[54] **PROCEDE DE COMMANDE EN BOUCLE OUVERTE ET/OU EN BOUCLE FERMEE D'UN ENGIN DE LEVAGE MONTE SUR UN VEHICULE**  
[72] DEIMER, THOMAS, AT  
[71] PALFINGER AG, AT  
[85] 2023-11-13  
[86] 2022-04-04 (PCT/AT2022/060102)  
[87] (WO2022/236346)  
[30] AT (GM 50105/2021) 2021-05-14

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[21] **3,219,975**  
[13] A1

[51] **Int.Cl. G16H 20/17 (2018.01) A61M 5/172 (2006.01)**  
[25] EN  
[54] **MEDICATION DELIVERY SYSTEM AND METHOD**  
[54] **SYSTEME ET METHODE D'ADMINISTRATION DE MEDICAMENT**  
[72] SADLEIR, PAUL HAROLD MARTIN, AU  
[72] SADLEIR, JOHN WILLOUGHBY, AU  
[71] SADLEIR LABORATORIES PTY LTD, AU  
[85] 2023-11-22  
[86] 2022-06-15 (PCT/AU2022/050594)  
[87] (WO2022/261708)  
[30] AU (2021901792) 2021-06-15  
[30] AU (2021901794) 2021-06-15

[21] **3,219,976**  
[13] A1

[51] **Int.Cl. G06Q 30/06 (2023.01)**  
[25] EN  
[54] **CHIMERIC POLYPEPTIDES AND METHODS OF USE**  
[54] **POLYPEPTIDES CHIMERIQUES ET PROCEDES D'UTILISATION**  
[72] NEELAPU, SATTVA S., US  
[72] LIU, JINGWEI, US  
[72] PATCHVA, SRIDEVI, US  
[72] TANG, YONGFU, US  
[71] BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM, US  
[85] 2023-11-13  
[86] 2022-05-13 (PCT/US2022/029232)  
[87] (WO2022/241240)  
[30] US (63/188,936) 2021-05-14  
[30] US (63/274,765) 2021-11-02

[21] **3,219,978**  
[13] A1

[51] **Int.Cl. F15B 21/044 (2019.01)**  
[25] EN  
[54] **DEVICE FOR FILLING A NON-VACUUM-RESISTANT SYSTEM BY MEANS OF VACUUM PRESSURE FILLING**  
[54] **DISPOSITIF POUR REMPLIR UN SYSTEME NON ETANCHE AU VIDE AU MOYEN D'UN REMPLISSAGE SOUS PRESSION SOUS VIDE**  
[72] DIETEL, DANY, DE  
[72] STAFFA, UWE, DE  
[72] RUMBKE, STEFAN, DE  
[72] RATHE, MICHAEL, DE  
[71] DURR SOMAC GMBH, DE  
[85] 2023-11-22  
[86] 2022-05-19 (PCT/DE2022/000053)  
[87] (WO2022/253377)  
[30] DE (10 2021 003 048.6) 2021-06-02

[21] **3,219,979**  
[13] A1

[51] **Int.Cl. G01B 5/20 (2006.01) G16H 50/20 (2018.01)**  
[25] EN  
[54] **METHOD OF TARGETED MULTI-PANEL APPROACH AND TIERED A.I. USE FOR DIFFERENTIAL DIAGNOSIS AND PROGNOSIS**  
[54] **PROCEDE D'APPROCHE CIBLEE A MULTIPLES GROUPES ET UTILISATION D'AI A PLUSIEURS NIVEAUX POUR LE DIAGNOSTIC ET LE PRONOSTIC DIFFERENTIELS**  
[72] RAFIKOV, RUSLAN, US  
[72] RAFIKOVA, OLGA, US  
[72] BOROVINSKIY, ALEXANDER, US  
[71] ARIZONA BOARD OF REGENTS ON BEHALF OF THE UNIVERSITY OF ARIZONA, US  
[85] 2023-11-13  
[86] 2022-05-13 (PCT/US2022/029270)  
[87] (WO2022/241264)  
[30] US (63/188,157) 2021-05-13

[21] **3,219,980**  
[13] A1

[51] **Int.Cl. C07K 7/64 (2006.01)**  
[25] EN  
[54] **CELL-PERMEABLE CYCLIC PEPTIDES AND USES THEREOF**  
[54] **PEPTIDES CYCLIQUES PERMEABLES AUX CELLULES ET LEURS UTILISATIONS**  
[72] PYE, CAMERON, US  
[72] SCHWOCHERT, JOSHUA, US  
[72] SILVESTRI, ANTHONY, US  
[71] UNNATURAL PRODUCTS INC., US  
[85] 2023-11-22  
[86] 2022-05-25 (PCT/US2022/030941)  
[87] (WO2022/251372)  
[30] US (63/193,383) 2021-05-26

[21] **3,219,981**  
[13] A1

[51] **Int.Cl. A01G 7/06 (2006.01) C12N 15/82 (2006.01)**  
[25] EN  
[54] **METHODS AND COMPOSITIONS FOR IMPROVING CARBON ACCUMULATION IN PLANTS**  
[54] **PROCEDES ET COMPOSITIONS POUR AMELIORER L'ACCUMULATION DE CARBONE DANS DES PLANTES**  
[72] BECKER, DAVID, US  
[72] GREBENOK, ROBERT, US  
[71] CANISUS UNIVERSITY, US  
[85] 2023-11-13  
[86] 2022-05-06 (PCT/US2022/028143)  
[87] (WO2022/240690)  
[30] US (63/188,622) 2021-05-14  
[30] US (63/326,383) 2022-04-01

[21] **3,219,983**  
[13] A1

[51] **Int.Cl. G01N 27/04 (2006.01)**  
[25] EN  
[54] **CHILD CARRIAGE WITH REMOVABLE SOFT GOODS**  
[54] **POUSSETTE A PARTIES SOUPLES AMOVIBLES**  
[72] HORST, ANDREW J., US  
[72] HARTENSTINE, CURTIS M., US  
[71] WONDERLAND SWITZERLAND AG, CH  
[85] 2023-11-10  
[86] 2022-05-11 (PCT/US2022/028729)  
[87] (WO2022/240962)  
[30] US (63/188,163) 2021-05-13  
[30] US (63/237,431) 2021-08-26

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[21] **3,219,984**  
[13] A1

[51] **Int.Cl. C07D 405/14 (2006.01) A61K 31/4545 (2006.01) A61P 3/06 (2006.01) A61P 3/10 (2006.01) C07D 235/16 (2006.01) C07D 487/16 (2006.01)**

[25] EN

[54] **GLP-1 RECEPTOR AGONIST AND COMPOSITION AND USE THEREOF**

[54] **AGONISTE DE RECEPTEURS DE GLP-1 ET COMPOSITION ET UTILISATION ASSOCIEES**

[72] ZHAI, WENQIANG, CN

[72] ZHANG, ZHIMIN, CN

[72] WANG, ZHE, CN

[72] PAN, HAO, CN

[72] GUO, LIUBIN, CN

[72] WANG, QIAN, CN

[71] HANGZHOU ZHONGMEI HUADONG PHARMACEUTICAL CO., LTD., CN

[85] 2023-11-22

[86] 2022-06-23 (PCT/CN2022/100685)

[87] (WO2022/268152)

[30] CN (202110702643.0) 2021-06-24

[21] **3,219,985**  
[13] A1

[51] **Int.Cl. H02K 1/02 (2006.01) H02K 11/028 (2016.01) H02K 1/16 (2006.01) H02K 1/24 (2006.01) H02P 23/14 (2006.01)**

[25] EN

[54] **DYNAMICALLY CONFIGURABLE HARDWARE SYSTEM FOR MOTOR SYSTEM AND METHOD FOR OPERATING SAME**

[54] **SYSTEME MATERIEL CONFIGURABLE DYNAMIQUEMENT POUR SYSTEME DE MOTEUR ET SON PROCEDE DE FONCTIONNEMENT**

[72] PENNINGTON, III, WALTER WESLEY, US

[72] SWINT, ETHAN BAGGET, US

[72] PREINDL, MATTHIAS, US

[72] STEVENSON, GREGORY GORDON, US

[72] RUBIN, MATHEW J., US

[72] DA COSTA, ANTHONY, US

[71] TAU MOTORS, INC., US

[85] 2023-11-10

[86] 2022-05-13 (PCT/US2022/029276)

[87] (WO2022/241269)

[30] US (63/188,374) 2021-05-13

[21] **3,219,987**  
[13] A1

[51] **Int.Cl. H01R 43/26 (2006.01)**

[25] EN

[54] **CONNECTOR MAP AND ASSEMBLY AID SOFTWARE FOR CABLE MANUFACTURING**

[54] **CARTE DE CONNECTEUR ET LOGICIEL D'AIDE A L'ASSEMBLAGE POUR LA FABRICATION DE CABLES**

[72] WILKINSON, MICHAEL PATRICK, US

[72] ISKRA, STEVEN A., US

[71] RAYTHEON COMPANY, US

[85] 2023-11-10

[86] 2022-05-16 (PCT/US2022/029393)

[87] (WO2022/245701)

[30] US (17/322,254) 2021-05-17

[21] **3,219,988**  
[13] A1

[51] **Int.Cl. H04N 21/422 (2011.01) G02B 6/00 (2006.01) H04Q 9/00 (2006.01)**

[25] EN

[54] **REMOTE CONTROL SYSTEM FOR IMPROVING TARGET SPECIFICITY**

[54] **SYSTEME DE COMMANDE A DISTANCE POUR AMELIORER LA SPECIFICITE DES CIBLES**

[72] RIEPLING, ERIC CASTEN, US

[71] ROKU, INC., US

[85] 2023-11-10

[86] 2022-05-23 (PCT/US2022/030514)

[87] (WO2022/251104)

[30] US (17/332,342) 2021-05-27

[21] **3,219,990**  
[13] A1

[25] EN

[54] **IMAGING DEVICE AND IMAGING METHOD**

[54] **DISPOSITIF D'IMAGERIE ET PROCEDE D'IMAGERIE**

[72] KIMURA, KENJIRO, JP

[72] KIMURA, NORIAKI, JP

[72] KIMURA, FUMITOSHI, JP

[71] INTEGRAL GEOMETRY SCIENCE INC., JP

[85] 2023-11-22

[86] 2022-06-09 (PCT/JP2022/023224)

[87] (WO2022/260112)

[30] JP (2021-098329) 2021-06-11

[21] **3,219,991**  
[13] A1

[51] **Int.Cl. G16H 50/70 (2018.01)**

[25] EN

[54] **COMPUTER ARCHITECTURE FOR GENERATING AN INTEGRATED DATA REPOSITORY**

[54] **ARCHITECTURE D'ORDINATEUR POUR GENERER UN REFERENTIEL DE DONNEES INTEGRE**

[72] KUMAR, NAVEEN, US

[72] ZHANG, JINGWEN, US

[72] SUBRAMANIAN, NISHA, US

[72] NAYAK, GAUTAM, US

[72] LANG, KATHRYN, US

[72] KUCHARLAPATI, RAJESH, US

[72] LU, SHUNXIN, US

[71] GUARDANT HEALTH, INC., US

[85] 2023-11-22

[86] 2022-06-03 (PCT/US2022/032250)

[87] (WO2022/256707)

[30] US (63/227,860) 2021-07-30

[30] US (63/238,851) 2021-08-31

[30] US (63/250,912) 2021-09-30

[30] US (63/196,609) 2021-06-03

[21] **3,219,993**  
[13] A1

[51] **Int.Cl. A61K 31/727 (2006.01) A61P 7/02 (2006.01) A61P 31/14 (2006.01) A61P 35/00 (2006.01)**

[25] EN

[54] **MEDIUM MOLECULAR WEIGHT HEPARIN FOR USE IN THE TREATMENT OF ENDOTHELIOPATHY**

[54] **HEPARINE DE POIDS MOLECULAIRE MOYEN DESTINEE A ETRE UTILISEE DANS LE TRAITEMENT DE L'ENDOTHELIOPATHIE**

[72] BHOGAL, PERVINDER SINGH, GB

[71] GLYCOS BIOMEDICAL LTD, GB

[85] 2023-11-13

[86] 2022-05-16 (PCT/EP2022/063222)

[87] (WO2022/238587)

[30] GB (2106972.9) 2021-05-14

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[21] **3,219,994**  
[13] A1

[51] **Int.Cl. H02H 3/02 (2006.01) H02H 3/087 (2006.01) H03K 17/687 (2006.01)**

[25] FR

[54] **ELECTRICAL SWITCHING DEVICE, AND ASSOCIATED METHOD AND SWITCHING SYSTEM**

[54] **DISPOSITIF DE COMMUTATION ELECTRIQUE, SYSTEME DE COMMUTATION ET PROCEDE ASSOCIES**

[72] DOMEJEAN, ERIC, FR

[72] BRENGUIER, JEROME, FR

[71] SCHNEIDER ELECTRIC INDUSTRIES SAS, FR

[85] 2023-11-13

[86] 2022-05-19 (PCT/EP2022/063625)

[87] (WO2022/243464)

[30] FR (FR2105286) 2021-05-20

[21] **3,219,995**  
[13] A1

[51] **Int.Cl. C21B 13/00 (2006.01) C07C 1/12 (2006.01) C25B 1/02 (2006.01)**

[25] EN

[54] **A METHOD FOR MANUFACTURING DIRECT REDUCED IRON**

[54] **PROCEDE DE FABRICATION DE FER A REDUCTION DIRECTE**

[72] TSVIK, GEORGE, US

[72] BOULANOV, DMITRI, US

[72] REYES RODRIGUEZ, JON, ES

[72] CARRIER, ODILE, FR

[72] SALAME, SARAH, FR

[72] BARROS LORENZO, JOSE, FR

[72] ANDRADE, MARCELO, US

[72] LU, DENNIS, US

[71] ARCELORMITTAL, LU

[85] 2023-11-13

[86] 2021-05-18 (PCT/IB2021/054259)

[87] (WO2022/243726)

[21] **3,219,996**  
[13] A1

[51] **Int.Cl. B66C 13/08 (2006.01)**

[25] EN

[54] **LONG LINE LOITER APPARATUS, SYSTEM, AND METHOD**

[54] **APPAREIL, SYSTEME ET PROCEDE DE VOL STATIONNAIRE A LONGUE LIGNE**

[72] SIKORA, DEREK, US

[72] CARR, CALEB B., US

[72] GOODRICH, LOGAN, US

[71] VITA INCLINATA IP HOLDINGS LLC, US

[85] 2023-11-22

[86] 2021-12-28 (PCT/US2021/065355)

[87] (WO2022/250736)

[30] US (17/330,266) 2021-05-25

[21] **3,219,997**  
[13] A1

[51] **Int.Cl. C21B 13/00 (2006.01) C21B 13/02 (2006.01)**

[25] EN

[54] **A METHOD FOR MANUFACTURING DIRECT REDUCED IRON**

[54] **PROCEDE DE FABRICATION DE FER A REDUCTION DIRECTE**

[72] SALAME, SARAH, FR

[72] CARRIER, ODILE, FR

[72] BARROS LORENZO, JOSE, FR

[72] REYES RODRIGUEZ, JON, ES

[72] ANDRADE, MARCELO, US

[72] BOULANOV, DMITRI, US

[72] LU, DENNIS, US

[72] TSVIK, GEORGE, US

[71] ARCELORMITTAL, LU

[85] 2023-11-13

[86] 2022-05-19 (PCT/IB2022/054679)

[87] (WO2022/254278)

[30] IB (PCT/IB2021/054751) 2021-05-31

[21] **3,220,000**  
[13] A1

[51] **Int.Cl. H04N 21/242 (2011.01) H04N 19/115 (2014.01) H04N 13/111 (2018.01) H04N 13/00 (2018.01)**

[25] EN

[54] **VOLUMETRIC VIDEO IN WEB BROWSER**

[54] **VIDEO VOLUMETRIQUE DANS UN NAVIGATEUR WEB**

[72] RUBINSTEIN, OFER, IL

[72] EILAM, YIGAL, IL

[72] BIRNBOIM, MICHAEL, IL

[72] KAGARLITSKY, VSEVOLOD, IL

[72] TALMON, GILAD, IL

[72] TAMIR, MIKY, IL

[71] YOOM.COM LTD, IL

[85] 2023-11-13

[86] 2022-05-25 (PCT/IL2022/050556)

[87] (WO2022/249183)

[30] US (63/192,643) 2021-05-25

[21] **3,220,001**  
[13] A1

[51] **Int.Cl. A23G 3/42 (2006.01) A23L 5/41 (2016.01) A23G 3/34 (2006.01) A23G 3/36 (2006.01) A23G 3/40 (2006.01)**

[25] EN

[54] **CONFECTIONARY WITH IMPROVED OPACITY**

[54] **CONFISERIE AYANT UNE OPACITE AMELIOREE**

[72] DOMINGUES, DAVID J., US

[72] LI, RUIQI, US

[72] VEMULAPALLI, VANI, US

[71] GENERAL MILLS, INC., US

[85] 2023-11-13

[86] 2022-05-05 (PCT/US2022/027831)

[87] (WO2022/240648)

[30] US (63/188,739) 2021-05-14

[21] **3,220,002**  
[13] A1

[51] **Int.Cl. C12N 5/077 (2010.01) A61K 35/12 (2015.01) A61P 1/16 (2006.01)**

[25] EN

[54] **METHODS AND COMPOSITIONS FOR TREATING LIVER DISEASE**

[54] **METHODES ET COMPOSITIONS POUR LE TRAITEMENT D'UNE HEPATOPATHIE**

[72] MARH, JOEL, US

[71] PRIMEGEN US, INC., US

[85] 2023-11-13

[86] 2022-05-12 (PCT/US2022/028948)

[87] (WO2022/241090)

[30] US (63/188,121) 2021-05-13

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[21] **3,220,003**  
[13] A1

[51] **Int.Cl. D21H 11/12 (2006.01) D21B 1/04 (2006.01) D21B 1/06 (2006.01) D21B 1/10 (2006.01) D21H 11/02 (2006.01)**

[25] EN

[54] **SYSTEM AND METHOD FOR REFINING AGRICULTURAL FIBERS TO A PULP SPECIFICATION**

[54] **SYSTEME ET PROCEDE POUR RAFFINER DES FIBRES AGRICOLES DANS UNE INVENTION DE PATE A PAPIER**

[72] LEACH, MILES, US

[72] MCKENZIE, MICHEL, US

[71] KANBOL, INC., US

[85] 2023-11-22

[86] 2022-05-27 (PCT/US2022/072613)

[87] (WO2022/251873)

[30] US (63/194,345) 2021-05-28

[30] US (63/280,855) 2021-11-18

[30] US (17/825,964) 2022-05-26

[21] **3,220,006**  
[13] A1

[51] **Int.Cl. G06F 16/22 (2019.01) G06F 16/2455 (2019.01) G06F 16/901 (2019.01) G06N 20/00 (2019.01)**

[25] EN

[54] **METHODS AND SYSTEMS FOR WEB-BASED DATA PRESENTATION**

[54] **PROCEDES ET SYSTEMES DE PRESENTATION DE DONNEES BASEE SUR LE WEB**

[72] LAPWOOD, ALEX, NZ

[72] LEE, ALEXANDER, NZ

[72] WEI, ELISE, NZ

[72] CLARK, FINN, NZ

[72] CHUDZINSKI-PAWLOWSKI, GRZEGORZ, NZ

[71] XERO LIMITED, NZ

[85] 2023-11-22

[86] 2021-08-25 (PCT/NZ2021/050154)

[87] (WO2022/250547)

[30] AU (2021901611) 2021-05-28

[21] **3,220,008**  
[13] A1

[51] **Int.Cl. B65B 1/36 (2006.01) B65B 37/06 (2006.01) B65B 37/20 (2006.01)**

[25] EN

[54] **TRANSFER DISPENSERS FOR ASSAY DEVICES WITH BEAD SIZE EXCLUSION**

[54] **DISTRIBUTEURS DE TRANSFERT POUR DISPOSITIFS DE DOSAGE A EXCLUSION DE TAILLE PAR BILLES**

[72] GUTIERREZ, EDGAR, US

[72] LU, JESSE, US

[72] MAHAKALKAR, KAPIL, US

[72] HAMMERLE, GALEN, US

[72] ZHANG, YI, US

[71] PLEXIUM, INC., US

[85] 2023-11-13

[86] 2022-06-07 (PCT/US2022/032559)

[87] (WO2022/261135)

[30] US (63/197,972) 2021-06-07

[30] US (63/273,389) 2021-10-29

[21] **3,220,005**  
[13] A1

[51] **Int.Cl. C07K 14/605 (2006.01) A61P 3/10 (2006.01)**

[25] EN

[54] **MODULATORS OF G-PROTEIN COUPLED RECEPTORS**

[54] **MODULATEURS DE RECEPTEURS COUPLES A LA PROTEINE G**

[72] ERLANSON, DANIEL, US

[72] FUCINI, RAYMOND V., US

[72] HANSEN, STIG, US

[72] IWIG, JEFF, US

[72] KRISHNAN, SHYAM, US

[72] MOYA, ENRIQUE, US

[72] SETHOFER, STEVEN, US

[71] CARMOT THERAPEUTICS INC., US

[85] 2023-11-13

[86] 2022-05-13 (PCT/US2022/029305)

[87] (WO2022/241287)

[30] US (63/188,342) 2021-05-13

[21] **3,220,007**  
[13] A1

[51] **Int.Cl. A61K 39/39 (2006.01) A61P 37/04 (2006.01) A61P 35/00 (2006.01) A61P 37/02 (2006.01)**

[25] EN

[54] **SYNTHETIC PROTEIN FOR INDUCING IMMUNE TOLERANCE**

[54] **PROTEINE SYNTHETIQUE POUR INDUIRE UNE TOLERANCE IMMUNITAIRE**

[72] GALIPEAU, JACQUES, US

[72] PAUL, PRADYUT, US

[71] WISCONSIN ALUMNI RESEARCH FOUNDATION, US

[85] 2023-11-13

[86] 2022-05-17 (PCT/US2022/029653)

[87] (WO2022/245841)

[30] US (63/189,359) 2021-05-17

[21] **3,220,009**  
[13] A1

[51] **Int.Cl. B02C 4/30 (2006.01)**

[25] EN

[54] **GRINDING ROLL**

[54] **ROULEAU DE BROYAGE**

[72] HARBOLD, KEITH, US

[72] REZNITCHENKO, VADIM, US

[71] METSO USA INC., US

[85] 2023-11-13

[86] 2022-06-20 (PCT/US2022/034141)

[87] (WO2022/271580)

[30] US (17/355,460) 2021-06-23



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[21] **3,220,010**  
[13] A1

[51] **Int.Cl. C07D 255/02 (2006.01) A61K 49/06 (2006.01) C07D 257/02 (2006.01)**

[25] EN

[54] **MOLECULAR PROBES FOR IN VIVO DETECTION OF ALDEHYDES**

[54] **SONDES MOLECULAIRES DE DETECTION IN VIVO D'ALDEHYDES**

[72] CARAVAN, PETER, US

[72] NING, YINGYING, US

[72] MA, HUA, US

[72] SHUVAEV, SERGEY, US

[72] AKAM, EMAN, US

[71] THE GENERAL HOSPITAL CORPORATION, US

[85] 2023-11-13

[86] 2022-05-13 (PCT/US2022/072310)

[87] (WO2022/241470)

[30] US (63/188,407) 2021-05-13

[21] **3,220,011**  
[13] A1

[51] **Int.Cl. G01B 11/25 (2006.01) E21B 47/002 (2012.01) E21B 47/007 (2012.01) E21B 47/017 (2012.01) E21B 12/02 (2006.01) G01B 11/16 (2006.01) G01B 11/245 (2006.01) G01C 11/06 (2006.01) G01C 15/04 (2006.01) G01M 5/00 (2006.01)**

[25] EN

[54] **CONTACTLESS REAL-TIME 3D MAPPING OF SURFACE EQUIPMENT**

[54] **CARTOGRAPHIE 3D EN TEMPS REEL SANS CONTACT D'UN EQUIPEMENT DE SURFACE**

[72] ALERIGI, DAMIAN PABLO SAN ROMAN, SA

[72] BATARSEH, SAMEEH ISSA, SA

[72] ELAIWY, MISHAAL, SA

[72] SEPULVEDA, ADRIAN CESAR CAVAZOS, SA

[72] ALOTAIBI, MUTLAQ SAAD, SA

[71] SAUDI ARABIAN OIL COMPANY, SA

[85] 2023-11-13

[86] 2022-05-24 (PCT/US2022/072537)

[87] (WO2022/251833)

[30] US (17/328,159) 2021-05-24

[21] **3,220,012**  
[13] A1

[51] **Int.Cl. F16F 1/40 (2006.01) F03D 80/70 (2016.01) F03D 7/02 (2006.01) F16F 1/373 (2006.01) F16F 3/087 (2006.01) F16F 3/093 (2006.01) F16F 7/108 (2006.01)**

[25] EN

[54] **ELASTOMERIC SPRING AND AZIMUTH DRIVE WITH ELASTOMERIC SPRING**

[54] **RESSORT ELASTOMERE ET ENTRAINEMENT AZIMUTAL DOTE D'UN RESSORT ELASTOMERE**

[72] SCHADDEL, MICHAEL, DE

[72] SPATZIG, WOLFGANG, DE

[72] KEHR, ANDREAS, DE

[71] EFFBE GMBH, DE

[85] 2023-11-22

[86] 2022-05-18 (PCT/EP2022/063369)

[87] (WO2022/258323)

[30] DE (10 2021 114 582.1) 2021-06-07

[30] DE (10 2021 116 293.9) 2021-06-23

[21] **3,220,015**  
[13] A1

[51] **Int.Cl. A61K 31/635 (2006.01)**

[25] EN

[54] **INHIBITORS OF BRUTON'S TYROSINE KINASE AND METHODS OF THEIR USE**

[54] **INHIBITEURS DE LA TYROSINE KINASE DE BRUTON ET LEURS PROCEDES D'UTILISATION**

[72] BALASUBRAMANIAN, SRIRAM, US

[72] CORNELISSEN, IVO, BE

[72] GUO, YUE, US

[72] LEU, JOCELYN H., US

[72] PACKMAN, KATHRYN E., US

[72] PALMER, JAMES ALEXANDER, US

[72] PHILIPPAR, ULRIKE, BE

[72] RAO, NAVIN, US

[72] TICHENOR, MARK S., US

[72] VENABLE, JENNIFER D., US

[72] WIENER, JOHN J.M., US

[72] MIAO, XIN, US

[71] JANSSEN PHARMACEUTICA NV, BE

[85] 2023-11-22

[86] 2022-06-02 (PCT/IB2022/055154)

[87] (WO2022/254371)

[30] US (63/196,843) 2021-06-04

[21] **3,220,017**  
[13] A1

[51] **Int.Cl. C04B 24/02 (2006.01) C04B 24/12 (2006.01) C04B 28/08 (2006.01) C04B 28/26 (2006.01)**

[25] FR

[54] **IMPROVED WORKABILITY RETENTION IN LOW-CLINKER HYDRAULIC COMPOSITIONS**

[54] **AMELIORATION DU MAINTIEN D'OUVRABILITE DE COMPOSITIONS HYDRAULIQUES A FAIBLE TENEUR EN CLINKER**

[72] BONAFIOUS, LAURENT, FR

[72] BOUSTINGORRY, PASCAL, FR

[71] CHRYSO, FR

[85] 2023-11-22

[86] 2022-05-24 (PCT/EP2022/063991)

[87] (WO2022/248442)

[30] FR (FR2105469) 2021-05-26

[21] **3,220,019**  
[13] A1

[51] **Int.Cl. E04G 23/04 (2006.01)**

[25] EN

[54] **METHOD AND APPARATUS FOR CONSTRUCTING AND REINFORCING AN OPENING IN A STRUCTURE**

[54] **PROCEDE ET APPAREIL POUR CONSTRUIRE ET RENFORCER UNE OUVERTURE DANS UNE STRUCTURE**

[72] KENNEDY, JEFFERY, US

[72] OLSON, KYLE, US

[71] LINTEL LIFT, LLC, US

[85] 2023-11-22

[86] 2022-05-25 (PCT/US2022/030877)

[87] (WO2022/251326)

[30] US (63/192,641) 2021-05-25

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[21] **3,220,020**  
[13] A1

[51] **Int.Cl. A23L 29/231 (2016.01) C08J 3/075 (2006.01) C08L 1/02 (2006.01) C08L 5/06 (2006.01)**

[25] EN

[54] **GELLING CITRUS FIBERS AND METHODS OF MANUFACTURE**

[54] **FIBRES D'AGRUMES GELIFIANTES ET PROCEDES DE FABRICATION**

[72] GHASEMZADEH-BARVARZ, MASSOUD, US

[72] CARVER, KELLY, US

[72] COUTROS-HOFFMANN, STELLA, US

[72] CROWE, MATTHEW, US

[72] DIENG, SENGHANE, US

[72] HIRSCH, JULIE, US

[72] WELCHOFF, MARJORIE, US

[72] LUCERO, CARLOS, US

[72] MEDIC, JELENA, US

[72] TZENG, JOHN, US

[71] CORN PRODUCTS DEVELOPMENT, INC., US

[85] 2023-11-22

[86] 2022-06-07 (PCT/US2022/032533)

[87] (WO2022/261116)

[30] US (63/208,123) 2021-06-08

[21] **3,220,034**  
[13] A1

[51] **Int.Cl. E01H 5/07 (2006.01) E01H 5/08 (2006.01)**

[25] EN

[54] **AUXILIARY MATERIAL MOVING ASSEMBLY FOR SNOW PLOW-BLOWER OR OTHER MATERIAL MOVING DEVICE**

[54] **ENSEMBLE DE DEPLACEMENT DE MATERIAU AUXILIAIRE POUR ENSEMBLE CHASSE-NEIGE-SOUFFLEUSE A NEIGE OU AUTRE DISPOSITIF DE DEPLACEMENT DE MATERIAU**

[72] FAVORITO, PAUL, US

[72] MARINO, FRANCISCO, US

[71] FAVORITO, PAUL, US

[71] MARINO, FRANCISCO, US

[85] 2023-11-22

[86] 2022-07-27 (PCT/US2022/038512)

[87] (WO2022/251756)

[21] **3,220,043**  
[13] A1

[51] **Int.Cl. C09D 11/03 (2014.01) C09D 7/45 (2018.01) C05G 3/50 (2020.01) C09K 23/00 (2022.01) C09K 23/42 (2022.01) C09K 8/524 (2006.01) C09K 8/584 (2006.01) C11D 1/52 (2006.01)**

[25] EN

[54] **SURFACTANT COMPOSITIONS**

[54] **COMPOSITIONS TENSIOACTIVES**

[72] KNOCK, MONA MARIE, US

[72] DADO, GREGORY P., US

[71] STEPAN COMPANY, US

[85] 2023-11-22

[86] 2022-08-04 (PCT/US2022/039369)

[87] (WO2023/014851)

[30] US (63/229,913) 2021-08-05

[21] **3,220,044**  
[13] A1

[51] **Int.Cl. A61B 17/82 (2006.01) A61B 17/62 (2006.01) A61B 17/84 (2006.01)**

[25] EN

[54] **METHODS AND DEVICES FOR ORTHOPEDIC SURGICAL TECHNIQUES**

[54] **METHODES ET DISPOSITIFS POUR DES TECHNIQUES CHIRURGICALES ORTHOPEDIQUES**

[72] MILLER, ERIC THOMAS, US

[72] SAMSON, TRINITY KRONK, US

[72] ISLAM, MUHAMMAD SAIYED, US

[72] BASDAVANOS, ALYSSA ANASTACIA, US

[71] SUMMA HEALTH SYSTEM, US

[85] 2023-11-22

[86] 2022-08-11 (PCT/US2022/040090)

[87] (WO2023/018890)

[30] US (63/231,981) 2021-08-11

[21] **3,220,051**  
[13] A1

[51] **Int.Cl. A45C 5/14 (2006.01) B60B 5/02 (2006.01) B60B 9/26 (2006.01)**

[25] EN

[54] **SHOCK ABSORBING LUGGAGE WHEEL**

[54] **ROUE DE BAGAGES ABSORBANT LES CHOCS**

[72] KRULIK, RICHARD, US

[72] RADA, GEORGENE, US

[72] STICCA, ALAN, US

[72] KIM, DAEHWAN, US

[72] WITT, FLORIAN, US

[72] HECKER, MATTHIAS, US

[71] BRIGGS AND RILEY TRAVELWARE, LLC, US

[85] 2023-11-22

[86] 2022-08-16 (PCT/US2022/040387)

[87] (WO2023/023003)

[30] US (63/234,021) 2021-08-17

[21] **3,220,067**  
[13] A1

[51] **Int.Cl. B60C 13/02 (2006.01)**

[25] FR

[54] **BICYCLE TYRE OPTIMISED FOR ELECTRIC ASSISTANCE**

[54] **PNEUMATIQUE DE VELO OPTIMISE POUR ASSISTANCE ELECTRIQUE**

[72] POTIN, YVES, FR

[72] HENNEBERT, GUILLAUME, FR

[71] COMPAGNIE GENERALE DES ETABLISSEMENTS MICHELIN, FR

[85] 2023-11-22

[86] 2022-06-13 (PCT/FR2022/051116)

[87] (WO2022/269160)

[30] FR (FR2106557) 2021-06-21

[21] **3,220,072**  
[13] A1

[51] **Int.Cl. A01N 55/10 (2006.01)**

[25] FR

[54] **AIR DISINFECTION METHOD AND DEVICE**

[54] **COMPOSITION ET DISPOSITIF POUR LA DESINFECTION DE L'AIR**

[72] NEWDELMAN, MITCHELL, MC

[71] NEWDELMAN, MITCHELL, MC

[85] 2023-11-22

[86] 2022-06-08 (PCT/EP2022/065548)

[87] (WO2022/258686)

[30] MC (2711) 2021-06-10

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[21] **3,220,080**  
[13] A1

[51] **Int.Cl. A23L 27/12 (2016.01) A61K 36/53 (2006.01) A61P 25/20 (2006.01)**  
[25] EN  
[54] **COMPOSITION FOR PROMOTING RELAXATION AND METHODS OF MAKING AND USING THE SAME**  
[54] **COMPOSITION POUR FAVORISER LA RELAXATION ET SES PROCEDES DE FABRICATION ET D'UTILISATION**  
[72] LAFOND, DAVID WILFRED, US  
[72] O'NEIL, CHRISTINE LYNN, US  
[71] MONTMAYEUR, JEAN-PIERRE, US  
[71] CELESTA COMPANY LLC, US  
[85] 2023-11-22  
[86] 2022-06-30 (PCT/US2022/035825)  
[87] (WO2023/283107)  
[30] US (63/218,453) 2021-07-05

[21] **3,220,081**  
[13] A1

[51] **Int.Cl. A61K 47/68 (2017.01) A61P 31/16 (2006.01) C07D 471/04 (2006.01) C07K 16/10 (2006.01)**  
[25] EN  
[54] **PROTEIN-ANTIVIRAL COMPOUND CONJUGATES**  
[54] **CONJUGUES PROTEINE-COMPOSE ANTIVIRAL**  
[72] NITTOLI, THOMAS, US  
[71] REGENERON PHARMACEUTICALS, INC., US  
[85] 2023-11-22  
[86] 2022-07-28 (PCT/US2022/038723)  
[87] (WO2023/009754)  
[30] US (63/226,713) 2021-07-28

[21] **3,220,084**  
[13] A1

[51] **Int.Cl. A61K 31/4045 (2006.01) A61K 31/522 (2006.01) A61K 36/575 (2006.01) A61K 36/82 (2006.01) A61P 25/24 (2006.01) A61K 45/06 (2006.01)**  
[25] EN  
[54] **COMPOSITION FOR PROMOTING RESTFUL SLEEP AND METHODS OF MAKING AND USING THE SAME**  
[54] **COMPOSITION POUR FAVORISER LE SOMMEIL REPARATEUR ET PROCEDES DE FABRICATION ET D'UTILISATION DE CELLE-CI**  
[72] LAFOND, DAVID WILFRED, US  
[72] O'NEIL, CHRISTINE LYNN, US  
[72] MONTMAYEUR, JEAN-PIERRE, US  
[71] CELESTA COMPANY LLC, US  
[85] 2023-11-22  
[86] 2022-06-30 (PCT/US2022/035838)  
[87] (WO2023/283108)  
[30] US (63/218,457) 2021-07-05

[21] **3,220,115**  
[13] A1

[51] **Int.Cl. E21B 34/14 (2006.01) E21B 43/26 (2006.01)**  
[25] EN  
[54] **STAGED MULTI-CLUSTER FRACTURING SLIDING SLEEVE SYSTEM BASED ON SMART KEY LABEL**  
[54] **SYSTEME ET PROCEDE DE MANCHONS COULISSANTS INTELLIGENTS DE FRACTURATION A GRAPPES MULTIPLES ET ETAGES MULTIPLES BASES SUR UNE ETIQUETTE DE CLE INTELLIGENTE**  
[72] SONG, WENPING, CN  
[72] YU, JIUZHENG, CN  
[72] SUN, QIAO, CN  
[72] ZHANG, DUOLI, CN  
[72] MA, TAO, CN  
[72] ZHANG, JIAQING, CN  
[72] YU, HAO, CN  
[72] LI, PENGYU, CN  
[72] LIU, WEI, CN  
[71] NINGBO HUA AO INTELLIGENT EQUIPMENT CO., LTD, CN  
[85] 2023-11-22  
[86] 2023-04-26 (PCT/CN2023/090716)  
[87] (WO2023/198218)  
[30] CN (202211680856.9) 2022-12-23

[21] **3,220,118**  
[13] A1

[51] **Int.Cl. F25B 45/00 (2006.01) F04B 17/06 (2006.01) F04B 41/02 (2006.01) F04C 18/344 (2006.01)**  
[25] EN  
[54] **PORTABLE, ROTARY VANE VACUUM PUMP WITH A QUICK OIL CHANGE SYSTEM**  
[54] **POMPE A VIDE A PALETTES PORTATIVE DOTEE D'UN SYSTEME DE VIDANGE D'HUILE RAPIDE**  
[72] SUNDHEIM, GREGORY S., US  
[72] SHOEMAKER, THOMAS C., US  
[72] RENCK, BRETT W., US  
[71] SUNDHEIM, GREGORY S., US  
[85] 2023-11-22  
[86] 2022-06-15 (PCT/US2022/033542)  
[87] (WO2022/271498)  
[30] US (63/215,313) 2021-06-25  
[30] US (17/827,267) 2022-05-27

[21] **3,220,120**  
[13] A1

[51] **Int.Cl. C22B 1/00 (2006.01) C21C 7/076 (2006.01) C22B 7/00 (2006.01) C22B 7/04 (2006.01) C22B 23/02 (2006.01) H01M 10/54 (2006.01)**  
[25] EN  
[54] **RECOVERY OF NICKEL AND COBALT FROM LI-ION BATTERIES OR THEIR WASTE**  
[54] **RECUPERATION DE NICKEL ET DE COBALT A PARTIR DE BATTERIES LI-ION OU DE LEURS DECHETS**  
[72] YAGI, RYOHEI, BE  
[72] SCHEUNIS, LENNART, BE  
[71] UMICORE, BE  
[85] 2023-11-10  
[86] 2022-05-13 (PCT/EP2022/063010)  
[87] (WO2022/248245)  
[30] EP (21176046.7) 2021-05-26

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[21] **3,220,121**  
[13] A1

[51] **Int.Cl. C07K 16/28 (2006.01) A61P 35/00 (2006.01)**  
[25] EN  
[54] **ANTI-CCR8 ANTIBODIES**  
[54] **ANTICORPS ANTI-CCR8**  
[72] MCCLUSKEY, ANDREW J., US  
[72] SCHMIDT PAUSTIAN, AMANDA M., US  
[72] SEAGAL, JANE, US  
[72] WILSBACHER, JULIE L., US  
[71] ABBVIE INC., US  
[85] 2023-11-13  
[86] 2022-07-27 (PCT/US2022/074214)  
[87] (WO2023/010054)  
[30] US (63/226,118) 2021-07-27

[21] **3,220,122**  
[13] A1

[51] **Int.Cl. C07K 14/475 (2006.01) A61K 38/18 (2006.01) A61P 25/16 (2006.01) A61P 25/28 (2006.01) C07K 14/47 (2006.01) C12N 15/12 (2006.01) C12N 15/85 (2006.01)**  
[25] EN  
[54] **GRANULIN/EPITHELIN MODULES AND COMBINATIONS THEREOF TO TREAT NEURODEGENERATIVE DISEASE**  
[54] **MODULES DE GRANULINE/EPITHELIN ET LEURS COMBINAISONS POUR TRAITER UNE MALADIE NEURODEGENERATIVE**  
[72] KAY, DENIS G., CA  
[71] ALPHA COGNITION INC., CA  
[85] 2023-11-14  
[86] 2022-05-20 (PCT/CA2022/050802)  
[87] (WO2022/241566)  
[30] US (63/191,255) 2021-05-20  
[30] US (63/309,118) 2022-02-11

[21] **3,220,123**  
[13] A1

[51] **Int.Cl. H02S 40/22 (2014.01) H01L 31/054 (2014.01) F24S 23/00 (2018.01)**  
[25] EN  
[54] **SOLAR ENERGY UTILIZATION APPARATUS AND COMBINED STRUCTURE THEREOF**  
[54] **DISPOSITIF D'UTILISATION D'ENERGIE SOLAIRE ET STRUCTURE COMBINEE DE DISPOSITIF D'UTILISATION D'ENERGIE SOLAIRE**  
[72] HU, XIAOPING, CN  
[71] BOLYMEDIA HOLDINGS CO. LTD., US  
[85] 2023-11-14  
[86] 2021-05-14 (PCT/CN2021/093806)  
[87] (WO2022/236804)

[21] **3,220,124**  
[13] A1

[51] **Int.Cl. G08B 17/113 (2006.01)**  
[25] EN  
[54] **SMOKE DETECTOR HOUSING AND SURFACE MOUNT**  
[54] **BOITIER DE DETECTEUR DE FUMEE ET SUPPORT DE SURFACE**  
[72] FUTRAN, CHAIM CARMIEL, US  
[72] THORNE, SCOTT JOSEPH, US  
[72] AHLGRIM, DIRK, US  
[71] SIMPLISAFE, INC., US  
[85] 2023-11-14  
[86] 2022-05-12 (PCT/US2022/028907)  
[87] (WO2022/241071)  
[30] US (17/320,406) 2021-05-14

[21] **3,220,125**  
[13] A1

[51] **Int.Cl. G08B 29/04 (2006.01) G08B 17/00 (2006.01)**  
[25] EN  
[54] **BATTERY TAMPER INDICATOR FOR DETECTOR**  
[54] **INDICATEUR D'ALTERATION DE BATTERIE POUR DETECTEUR**  
[72] FUTRAN, CHAIM CARMIEL, US  
[72] THORNE, SCOTT JOSEPH, US  
[72] AHLGRIM, DIRK, US  
[72] CONNER, SCOTT A., US  
[71] SIMPLISAFE, INC., US  
[85] 2023-11-14  
[86] 2022-05-12 (PCT/US2022/028913)  
[87] (WO2022/241075)  
[30] US (17/320,438) 2021-05-14

[21] **3,220,127**  
[13] A1

[51] **Int.Cl. B65H 20/16 (2006.01) B29C 51/26 (2006.01)**  
[25] EN  
[54] **THERMOFORMING MACHINE WEB TRANSPORT ASSEMBLY**  
[54] **ENSEMBLE DE TRANSPORT DE BANDE DE MACHINE DE THERMOFORMAGE**  
[72] STEWART, JASON, US  
[72] TREIBLE, PAUL, US  
[71] NELIPAK CORPORATION, US  
[85] 2023-11-14  
[86] 2022-05-12 (PCT/US2022/028967)  
[87] (WO2022/241101)  
[30] US (63/188,757) 2021-05-14  
[30] US (63/279,368) 2021-11-15  
[30] US (17/742,385) 2022-05-11

[21] **3,220,130**  
[13] A1

[51] **Int.Cl. A61K 35/17 (2015.01) C12N 5/0783 (2010.01) C07K 14/725 (2006.01) C12N 15/63 (2006.01) C12N 15/86 (2006.01)**  
[25] EN  
[54] **ENGINEERING STEM CELLS FOR ALLOGENIC CAR T CELL THERAPIES**  
[54] **MODIFICATION DE CELLULES SOUCHES POUR THERAPIES PAR LYMPHOCYTES T ALLOGENIQUES**  
[72] KANG, JEENJOO S., US  
[72] WIEZOREK, JEFFREY SCOTT, US  
[72] WANG, XI, US  
[72] CHRISTOPHER, MICHAEL, US  
[71] APPIA BIO, INC., US  
[85] 2023-11-14  
[86] 2022-05-12 (PCT/US2022/028996)  
[87] (WO2022/241120)  
[30] US (63/188,872) 2021-05-14

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[21] **3,220,131**  
[13] A1

[51] **Int.Cl. B01J 19/00 (2006.01) C12M 1/00 (2006.01) C12M 3/00 (2006.01) C40B 30/00 (2006.01) C40B 30/04 (2006.01)**

[25] EN

[54] **ASSAY DEVICES FOR COMBINATORIAL LIBRARIES**

[54] **DISPOSITIFS DE DOSAGE POUR BIBLIOTHEQUES COMBINATOIRES**

[72] ZHANG, YI, US

[72] LU, JESSE, US

[72] PRICE, ALEX, US

[72] YANG, PENGYU, US

[72] VIJAYAN, KANDASWAMY, US

[71] PLEXIUM, INC., US

[85] 2023-10-13

[86] 2021-04-16 (PCT/US2021/027769)

[87] (WO2022/220844)

[21] **3,220,133**  
[13] A1

[51] **Int.Cl. B65G 47/68 (2006.01) B65G 57/32 (2006.01)**

[25] EN

[54] **TAPERING OF A CONVEYOR FLOW OF PIECE GOODS**

[54] **RETRECISSEMENT D'UN FLUX TRANSPORTE DE MARCHANDISES DE DETAIL**

[72] FISCHER, FELIX, DE

[71] KORBER SUPPLY CHAIN LOGISTICS GMBH, DE

[85] 2023-11-14

[86] 2021-09-24 (PCT/EP2021/076304)

[87] (WO2022/253452)

[30] EP (21176912.0) 2021-05-31

[21] **3,220,134**  
[13] A1

[51] **Int.Cl. H01H 9/54 (2006.01) H01H 9/52 (2006.01) H01H 33/59 (2006.01) H01H 71/12 (2006.01)**

[25] FR

[54] **ELECTRICAL PROTECTION APPARATUS AND SYSTEMS HAVING AN INTEGRATED CUT-OFF MODULE**

[54] **APPAREILS ET SYSTEMES DE PROTECTION ELECTRIQUE COMPORTANT UN MODULE DE COUPURE INTEGRE**

[72] DOMEJEAN, ERIC, FR

[72] BRENGUIER, JEROME, FR

[72] COURT, FREDERIC, FR

[72] KILINDJIAN, CHRISTOPHE, FR

[71] SCHNEIDER ELECTRIC INDUSTRIES SAS, FR

[85] 2023-11-14

[86] 2022-05-19 (PCT/EP2022/063617)

[87] (WO2022/243456)

[30] FR (FR2105289) 2021-05-20

[21] **3,220,135**  
[13] A1

[51] **Int.Cl. C12N 9/22 (2006.01) C21C 3/00 (2006.01) D21H 21/04 (2006.01)**

[25] EN

[54] **METHOD FOR CONTROLLING SLIME IN A PULP OR PAPER MAKING PROCESS**

[54] **PROCEDE DE GESTION DE BOUE DANS UN PROCEDE DE FABRICATION DE PATE A PAPIER OU DE PAPIER**

[72] LOUREIRO, PEDRO EMANUEL GARCIA, DK

[72] SCHARFF-POULSEN, ANNE MARIE, DK

[72] TINGSTED, KASPER BAY, DK

[71] NOVOZYMES A/S, DK

[85] 2023-11-14

[86] 2022-06-15 (PCT/EP2022/066384)

[87] (WO2022/263553)

[30] DK (PA202100639) 2021-06-16

[30] EP (21179682.6) 2021-06-16

[21] **3,220,136**  
[13] A1

[51] **Int.Cl. A61K 35/17 (2015.01) C12N 5/0783 (2010.01) A61P 35/00 (2006.01)**

[25] EN

[54] **PRODUCTION OF ENGINEERED T CELLS FROM STEM CELLS**

[54] **PRODUCTION DE LYMPHOCYTES T MODIFIES A PARTIR DE CELLULES SOUCHES**

[72] WIEZOREK, JEFFREY SCOTT, US

[72] SMITH, DRAKE, US

[72] WANG, XI, US

[72] GOV, LANNY, US

[72] ALLEN, SEAN, US

[71] APPIA BIO, INC., US

[85] 2023-11-14

[86] 2022-05-13 (PCT/US2022/029221)

[87] (WO2022/241232)

[30] US (63/188,868) 2021-05-14

[21] **3,220,137**  
[13] A1

[51] **Int.Cl. A61K 31/422 (2006.01) A61K 31/437 (2006.01) A61P 3/00 (2006.01)**

[25] EN

[54] **METHODS OF TREATING ERYTHROPOIETIC PROTOPORPHYRIA, X-LINKED PROTOPORPHYRIA, OR CONGENITAL ERYTHROPOIETIC PORPHYRIA WITH GLYCINE TRANSPORT INHIBITORS**

[54] **METHODES DE TRAITEMENT DE PROTOPORPHYRIE ERYTHROPOIETIQUE, DE PROTOPORPHYRIE LIEE A L'X OU DE PORPHYRIE ERYTHROPOIETIQUE CONGENITALE AVEC DES INHIBITEURS DE TRANSPORT DE GLYCINE**

[72] MACDONALD, BRIAN RICHARD, US

[72] BECONI, MARIA GABRIELA, US

[72] HONG, VU, US

[71] DISC MEDICINE, INC., US

[85] 2023-11-14

[86] 2022-05-13 (PCT/US2022/029283)

[87] (WO2022/241274)

[30] US (63/188,489) 2021-05-14

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[21] <b>3,220,139</b> [13] A1	[21] <b>3,220,145</b> [13] A1	[21] <b>3,220,146</b> [13] A1
[51] <b>Int.Cl. A61B 5/00 (2006.01) A61B 5/0215 (2006.01) A61F 2/24 (2006.01) A61M 27/00 (2006.01)</b>	[51] <b>Int.Cl. A61L 27/18 (2006.01) B33Y 10/00 (2015.01) B33Y 80/00 (2015.01) B22F 5/00 (2006.01) B29C 39/02 (2006.01)</b>	[51] <b>Int.Cl. C07D 209/14 (2006.01) A23L 33/10 (2016.01) A61K 31/4045 (2006.01) A61K 45/06 (2006.01) A61P 35/00 (2006.01) C07D 209/20 (2006.01)</b>
[25] EN	[25] EN	[25] EN
[54] <b>IMPLANT-ADJACENT SENSOR ANCHORING</b>	[54] <b>VASCULAR CASTING AND APPLICATIONS THEREOF</b>	[54] <b>BENZAMIDE DERIVATIVES, PREPARATION METHOD THEREOF, AND PHARMACEUTICAL COMPOSITION FOR USE IN PREVENTING OF TREATING CANCER CONTAINING THE SAME AS AN ACTIVE INGREDIENT</b>
[54] <b>ANCRAGE DE CAPTEUR ADJACENT A UN IMPLANT</b>	[54] <b>MOULAGE VASCULAIRE ET SES APPLICATIONS</b>	[54] <b>DERIVE DE BENZAMIDE, PROCEDE DE PREPARATION ASSOCIE ET COMPOSITION PHARMACEUTIQUE POUR LA PREVENTION OU LE TRAITEMENT DU CANCER LE CONTENANT EN TANT QUE PRINCIPE ACTIF</b>
[72] MCCONNELL, STEVEN, US	[72] GRIGORYAN, BAGRAT, US	[72] KANG, SEOCKYONG, KR
[72] POOL, SCOTT LOUIS, US	[72] MILLER, JORDAN, US	[72] YOON, DASEUL, KR
[72] MAHMOUDI, RANI ABDULLAH, US	[71] 3D SYSTEMS, INC., US	[72] KIM, HYEJEONG, KR
[72] AMEFIA, KOKOU ANANI, US	[85] 2023-11-14	[72] PARK, SOM YI, KR
[72] VALDEZ, MICHAEL G., US	[86] 2022-05-23 (PCT/IB2022/054815)	[72] KIM, DONGKYU, KR
[72] HINZMAN, JULIE ANN, US	[87] (WO2022/249038)	[72] PARK, JI-YEON, KR
[72] CHANG, ARVIN T., US	[30] US (63/192,932) 2021-05-25	[72] BYEON, YEJI, KR
[72] RABBAH, JEAN-PIERRE MICHEL, US		[72] JO, HYE-IM, KR
[71] EDWARDS LIFESCIENCES CORPORATION, US		[72] JUNG, SEUNG HEE, KR
[85] 2023-11-14		[72] CHOI, SEONG-IL, KR
[86] 2022-05-20 (PCT/US2022/030210)		[72] LEE, SEUNG CHUL, KR
[87] (WO2022/246168)		[72] LEE, KWANGHO, KR
[30] US (63/191,534) 2021-05-21		[71] HK INNO.N CORPORATION, KR
[30] US (63/224,286) 2021-07-21		[71] KOREA RESEARCH INSTITUTE OF CHEMICAL TECHNOLOGY, KR
[30] US (63/225,039) 2021-07-23		[85] 2023-11-14
[30] US (63/225,689) 2021-07-26		[86] 2022-05-13 (PCT/KR2022/006895)
[30] US (63/235,038) 2021-08-19		[87] (WO2022/245061)
		[30] KR (10-2021-0063304) 2021-05-17
[21] <b>3,220,143</b> [13] A1		
[51] <b>Int.Cl. C10M 133/00 (2006.01) C10M 135/10 (2006.01) C10M 137/02 (2006.01)</b>		
[25] EN		
[54] <b>LOW ASH LUBRICATING OIL COMPOSITION</b>		
[54] <b>COMPOSITION D'HUILE LUBRIFIANTE A FAIBLE TENEUR EN CENDRES</b>		
[72] TANAKA, ISAO, JP		
[72] AOYAMA, KYOSUKE, JP		
[72] ELLIOTT, IAN G., US		
[71] CHEVRON JAPAN LTD., JP		
[71] CHEVRON ORONITE COMPANY LLC, US		
[85] 2023-11-14		
[86] 2022-05-20 (PCT/IB2022/054715)		
[87] (WO2022/243947)		
[30] US (63/191,005) 2021-05-20		

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[21] **3,220,154**  
[13] A1

[51] **Int.Cl. B21B 31/16 (2006.01)**  
[25] EN  
[54] **AUTOMATED CALIBRATION AND REALTIME COMMUNICATION OF DATA. PROBLEMS, DAMAGE, MANIPULATION, AND FAILURE FROM A NETWORK OF BATTERY POWERED SMART GUIDE NODES WITHIN A ROLLING MILL**

[54] **ETALONNAGE AUTOMATISE ET COMMUNICATION EN TEMPS REEL DE DONNEES L'INVENTION A TRAIT AU DOMAINE DES PROBLEMES, DES DOMMAGES, DE LA MANIPULATION ET DE LA DEFAILLANCE DE RESEAUX DE NOEUDS DE GUIDAGE INTELLIGENTS ALIMENTES PAR BATTERIE DANS UN LAMINOIR**

[72] ANDERSON, MATTHEW, US  
[72] LE, MICHELLE, US  
[71] PRIMETALS TECHNOLOGIES USA LLC, US  
[85] 2023-11-14  
[86] 2022-05-26 (PCT/US2022/031020)  
[87] (WO2022/260865)  
[30] US (17/345,106) 2021-06-11

[21] **3,220,155**  
[13] A1

[51] **Int.Cl. C07D 471/14 (2006.01) A61K 31/437 (2006.01) A61P 35/00 (2006.01) C07D 519/00 (2006.01)**

[25] EN  
[54] **TRICYCLIC HETEROCYCLES AS FGFR INHIBITORS**

[54] **HETEROCYCLES TRICYCLIQUES UTILES EN TANT QU'INHIBITEURS DE FGFR**

[72] SWYKA, ROBERT, US  
[72] STYDUHAR, EVAN, US  
[72] LI, XIN, US  
[72] VECHORKIN, OLEG, US  
[72] YAO, WENQING, US  
[71] INCYTE CORPORATION, US  
[85] 2023-11-14  
[86] 2022-06-08 (PCT/US2022/032603)  
[87] (WO2022/261159)  
[30] US (63/208,661) 2021-06-09

[21] **3,220,159**  
[13] A1

[51] **Int.Cl. E21B 47/12 (2012.01) E21B 44/00 (2006.01)**

[25] EN  
[54] **DRILLING CONTROL**

[54] **COMMANDE DE PERCAGE**

[72] WICKS, NATHANIEL, US  
[72] YU, YINGWEI, US  
[72] MEEHAN, RICHARD JOHN, US  
[72] MANSOUR, DARINE, US  
[71] SCHLUMBERGER CANADA LIMITED, CA  
[85] 2023-11-14  
[86] 2022-06-15 (PCT/US2022/033554)  
[87] (WO2022/266180)  
[30] US (17/304,151) 2021-06-15

[21] **3,220,160**  
[13] A1

[51] **Int.Cl. C07D 239/95 (2006.01) C07D 471/04 (2006.01)**

[25] EN  
[54] **COMBINATION THERAPY COMPRISING A MAT2A INHIBITOR AND A TYPE II PRMT INHIBITOR**

[54] **POLYTHERAPIE COMPRENANT UN INHIBITEUR DE MAT2A ET UN INHIBITEUR DE PRMT DE TYPE II**

[72] DILLON, MICHAEL PATRICK, US  
[72] NEILAN, CLAIRE L., US  
[72] FISCHER, MARCUS MICHAEL, US  
[72] GERRICK, KIMBERLINE YANG, US  
[71] IDEAYA BIOSCIENCES, INC., US  
[85] 2023-11-23  
[86] 2022-06-01 (PCT/US2022/072693)  
[87] (WO2022/256806)  
[30] US (63/196,008) 2021-06-02  
[30] US (63/362,438) 2022-04-04  
[30] US (63/364,360) 2022-05-09

[21] **3,220,162**  
[13] A1

[51] **Int.Cl. C14C 1/00 (2006.01) A23K 10/26 (2016.01) A23K 20/163 (2016.01)**

[25] EN  
[54] **RAWHIDE ANIMAL CHEW INCLUDING MICROPORES FILLED WITH CHITOSAN**

[54] **PRODUIT A MACHER POUR ANIMAUX A BASE DE PEAU BRUTE COMPRENANT DES MICROPORES REMPLIS DE CHITOSANE**

[72] AXELROD, GLEN S., US  
[72] GAJRIA, AJAY, US  
[71] IMS TRADING, LLC, US  
[85] 2023-11-14  
[86] 2022-05-19 (PCT/US2022/072419)  
[87] (WO2022/246439)  
[30] US (63/201,970) 2021-05-20

[21] **3,220,163**  
[13] A1

[51] **Int.Cl. E21B 7/14 (2006.01) E21B 47/002 (2012.01) E21B 41/00 (2006.01)**

[25] EN  
[54] **SYSTEM AND METHOD FOR LASER DOWNHOLE EXTENDED SENSING**

[54] **SYSTEME ET PROCEDE DE DETECTION LASER ETENDUE DE FOND DE TROU**

[72] BATARSEH, SAMEEH ISSA, SA  
[72] ALERIGI, DAMIAN PABLO SAN ROMAN, SA  
[71] SAUDI ARABIAN OIL COMPANY, SA  
[85] 2023-11-14  
[86] 2022-05-24 (PCT/US2022/072523)  
[87] (WO2022/251823)  
[30] US (17/328,564) 2021-05-24

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[21] **3,220,165**  
[13] A1

[51] **Int.Cl. A23L 33/135 (2016.01)**  
[25] EN  
[54] **BACTERIA AND HERBAL EXTRACT NUTRACEUTICAL BLENDS FOR LUNG HEALTH MAINTENANCE**

[54] **MELANGES NUTRACEUTIQUES DE BACTERIES ET D'EXTRAITS D'HERBES SERVANT A L'ENTRETIEN DE LA SANTE PULMONAIRE**

[72] LAL, CHARITHARTH VIVEK, US  
[72] WENGER, NANCY, US  
[71] THE UAB RESEARCH FOUNDATION, US  
[71] RESBIOTIC NUTRITION, INC., US  
[85] 2023-11-23  
[86] 2022-06-16 (PCT/US2022/072975)  
[87] (WO2022/266650)  
[30] US (63/211,887) 2021-06-17

[21] **3,220,179**  
[13] A1

[25] EN  
[54] **INTEGRATED AUTONOMOUS OIL-SLICK SAMPLER AND STORAGE PRESERVATION DEVICE**

[54] **ECHANTILLONNEUR AUTONOME INTEGRE DE NAPPE DE PETROLE ET DISPOSITIF DE CONSERVATION DE STOCKAGE**

[72] MEURER, WILLIAM P., US  
[72] WANG, DAVID T., US  
[72] SHIPMAN, GREGORY W., US  
[72] SPITZENBERGER, JEFFREY D., US  
[72] SUTTON, MICHAEL, US  
[72] BRIDGES, JEFFREY C., US  
[72] MORENO, PAUL, US  
[71] EXXONMOBIL TECHNOLOGY AND ENGINEERING COMPANY, US  
[85] 2023-11-23  
[86] 2022-04-22 (PCT/US2022/071879)  
[87] (WO2022/251768)  
[30] US (63/202,110) 2021-05-27

[21] **3,220,183**  
[13] A1

[51] **Int.Cl. G01T 1/00 (2006.01) G01T 5/02 (2006.01) G01K 1/14 (2021.01)**  
[25] EN  
[54] **WEARABLE RADON DETECTOR**  
[54] **DETECTEUR DE RADON PORTABLE**

[72] FEARIS, MARK DAVID, US  
[72] DECHRISTOPHER, JOHN PATRICK, US  
[71] SPRUCE ENVIRONMENTAL TECHNOLOGIES, INC., US  
[85] 2023-11-10  
[86] 2022-05-12 (PCT/US2022/029051)  
[87] (WO2022/241154)  
[30] US (63/188,712) 2021-05-14  
[30] US (17/742,302) 2022-05-11

[21] **3,220,195**  
[13] A1

[51] **Int.Cl. A61P 25/02 (2006.01)**  
[25] EN  
[54] **TREATING PAIN ASSOCIATED WITH CHEMOTHERAPY-INDUCED PERIPHERAL NEUROPATHY**

[54] **TRAITEMENT DE LA DOULEUR ASSOCIEE A UNE NEUROPATHIE PERIPHERIQUE INDUITE PAR UNE CHIMIOTHERAPIE**

[72] RIGAS, BASIL, US  
[71] MEDICON PHARMACEUTICALS, INC., US  
[85] 2023-11-23  
[86] 2022-05-23 (PCT/US2022/072496)  
[87] (WO2022/251805)  
[30] US (63/192,246) 2021-05-24

[21] **3,220,196**  
[13] A1

[51] **Int.Cl. A61P 25/02 (2006.01)**  
[25] EN  
[54] **TREATING PAIN ASSOCIATED WITH DIABETIC PERIPHERAL NEUROPATHY**

[54] **TRAITEMENT DE LA DOULEUR ASSOCIEE A UNE NEUROPATHIE PERIPHERIQUE DIABETIQUE**

[72] RIGAS, BASIL, US  
[71] MEDICON PHARMACEUTICALS, INC., US  
[85] 2023-11-23  
[86] 2022-05-23 (PCT/US2022/072497)  
[87] (WO2022/251806)  
[30] US (63/192,248) 2021-05-24

[21] **3,220,199**  
[13] A1

[51] **Int.Cl. C25B 1/135 (2021.01) C01B 32/15 (2017.01) C25B 9/09 (2021.01) C08K 3/04 (2006.01)**  
[25] EN  
[54] **APPARATUS, SYSTEM AND METHOD FOR MAKING A POLYMER-CARBON NANOMATERIAL ADMIXTURE FROM CARBON DIOXIDE AND MATERIALS AND PRODUCTS THEREOF**

[54] **SYSTEME ET PROCEDE DE FABRICATION D'UN MELANGE POLYMERE-NANOMATERIAU A BASE DE CARBONE A PARTIR DE DIOXYDE DE CARBONE ET PRODUITS ASSOCIES**

[72] LICHT, STUART, US  
[72] LICHT, GAD, US  
[71] DIRECT AIR CAPTURE, LLC, US  
[85] 2023-11-23  
[86] 2022-05-24 (PCT/US2022/030682)  
[87] (WO2022/251182)  
[30] US (63/192,304) 2021-05-24

[21] **3,220,210**  
[13] A1

[51] **Int.Cl. D01F 9/12 (2006.01) B82Y 30/00 (2011.01) D01F 9/133 (2006.01)**  
[25] EN  
[54] **APPARATUS, SYSTEM AND METHOD FOR MAKING A CARBON NANOMATERIAL FIBER AND TEXTILES FROM CARBON DIOXIDE AND MATERIALS AND MATERIALS AND PRODUCTS THEREOF**

[54] **APPAREIL, SYSTEME ET PROCEDE DE FABRICATION D'UNE FIBRE ET DE TEXTILES EN NANOMATERIAU DE CARBONE A PARTIR DE DIOXYDE DE CARBONE ET DE MATERIAUX, ET MATERIAUX ET PRODUITS ASSOCIES**

[72] LICHT, STUART, US  
[72] LICHT, GAD, US  
[71] DIRECT AIR CAPTURE, LLC, US  
[85] 2023-11-23  
[86] 2022-05-26 (PCT/US2022/031116)  
[87] (WO2022/251485)  
[30] US (63/193,417) 2021-05-26



# Canadian Divisional and Previously Unavailable Applications Open to Public Inspection

## Demandes canadiennes apparentées par division et demandes mises à la disponibilité du public non disponibles auparavant

	[21] <b>3,218,662</b> [13] A1	[21] <b>3,218,836</b> [13] A1	[21] <b>3,218,946</b> [13] A1
<p>[25] EN</p> <p>[54] <b>COMPOSITIONS AND METHODS FOR SYNTHESIZING 5'-CAPPED RNAS</b></p> <p>[54] <b>COMPOSITIONS ET PROCEDES DE SYNTHESE D'ARN COIFFES EN 5'</b></p> <p>[72] HOGREFE, RICHARD I., US</p> <p>[72] LEBEDEV, ALEXANDRE, US</p> <p>[72] MCCAFFREY, ANTON P., US</p> <p>[72] SHIN, DONGWON, US</p> <p>[71] TRILINK BIOTECHNOLOGIES, LLC, US</p> <p>[22] 2016-09-20</p> <p>[41] 2017-03-30</p> <p>[62] 2,999,274</p> <p>[30] US (62/221,248) 2015-09-21</p>	<p>[51] <b>Int.Cl. G01N 27/00 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>SYSTEM AND METHOD FOR SMART MATERIAL MONITORING</b></p> <p>[54] <b>SYSTEME ET PROCEDE PERMETTANT UNE SURVEILLANCE INTELLIGENTE D'UN MATERIAU</b></p> <p>[72] AGOSTINELLI, GREGORY A., CA</p> <p>[72] HANNA, STEVEN NASHED, US</p> <p>[72] MIREL, IONUT ALEXANDRU, CA</p> <p>[71] IDEACURIA INC., CA</p> <p>[22] 2016-06-10</p> <p>[41] 2016-12-15</p> <p>[62] 2,989,096</p> <p>[30] US (62/174,918) 2015-06-12</p>	<p>[25] EN</p> <p>[54] <b>AUTO-RACK RAILROAD CAR BRIDGE PLATE AND BRIDGE PLATE LOCKING ASSEMBLY</b></p> <p>[54] <b>PLAQUE DE PONT DE WAGON DE TRANSPORT D'AUTOMOBILES ET DISPOSITIF DE VERROUILLAGE DE PLAQUE DE PONT</b></p> <p>[72] ANDERSON, JOHN D., US</p> <p>[72] PEACH, WALTER J., US</p> <p>[72] VECHIOLA, EDWARD L., US</p> <p>[71] TRANSPORTATION IP HOLDINGS, LLC, US</p> <p>[22] 2017-05-15</p> <p>[41] 2017-11-20</p> <p>[62] 2,967,148</p> <p>[30] US (62/339,354) 2016-05-20</p> <p>[30] US (15/462,119) 2017-03-17</p>	
<p>[25] EN</p> <p>[54] <b>FAILURE PROCESSING METHOD, HANDOVER METHOD, TERMINAL DEVICE, AND NETWORK DEVICE</b></p> <p>[54] <b>PROCEDE DE TRAITEMENT DE DEFAILLANCE, PROCEDE DE COMMUTATION, DISPOSITIF TERMINAL ET DISPOSITIF RESEAU</b></p> <p>[72] PENG, WENJIE, CN</p> <p>[72] GUO, YI, CN</p> <p>[72] DAI, MINGZENG, CN</p> <p>[71] HUAWEI TECHNOLOGIES CO., LTD., CN</p> <p>[22] 2018-05-04</p> <p>[41] 2018-11-08</p> <p>[62] 3,056,692</p> <p>[30] CN (201710314196.5) 2017-05-05</p>	<p>[21] <b>3,218,722</b> [13] A1</p> <p>[51] <b>Int.Cl. G01N 27/00 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>SYSTEM AND METHOD FOR SMART MATERIAL MONITORING</b></p> <p>[54] <b>SYSTEME ET PROCEDE PERMETTANT UNE SURVEILLANCE INTELLIGENTE D'UN MATERIAU</b></p> <p>[72] AGOSTINELLI, GREGORY A., CA</p> <p>[72] HANNA, STEVEN NASHED, US</p> <p>[72] MIREL, IONUT ALEXANDRU, CA</p> <p>[71] IDEACURIA INC., CA</p> <p>[22] 2016-06-10</p> <p>[41] 2016-12-15</p> <p>[62] 2,989,096</p> <p>[30] US (62/174,918) 2015-06-12</p>	<p>[21] <b>3,218,837</b> [13] A1</p> <p>[51] <b>Int.Cl. G01N 27/00 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>SYSTEM AND METHOD FOR SMART MATERIAL MONITORING</b></p> <p>[54] <b>SYSTEME ET PROCEDE PERMETTANT UNE SURVEILLANCE INTELLIGENTE D'UN MATERIAU</b></p> <p>[72] AGOSTINELLI, GREGORY A., CA</p> <p>[72] HANNA, STEVEN NASHED, US</p> <p>[72] MIREL, IONUT ALEXANDRU, CA</p> <p>[71] IDEACURIA INC., CA</p> <p>[22] 2016-06-10</p> <p>[41] 2016-12-15</p> <p>[62] 2,989,096</p> <p>[30] US (62/174,918) 2015-06-12</p>	<p>[21] <b>3,218,974</b> [13] A1</p> <p>[51] <b>Int.Cl. A61M 5/32 (2006.01) A61M 5/20 (2006.01) A61M 5/31 (2006.01)</b></p> <p>[25] EN</p> <p>[54] <b>AUTO-INJECTOR WITH ACTUATION PREVENTION CAP</b></p> <p>[54] <b>AUTO-INJECTEUR AVEC CAPUCHON DE PREVENTION D'ACTIONNEMENT</b></p> <p>[72] BESSON, NICOLAS, FR</p> <p>[71] BECTON DICKINSON FRANCE, FR</p> <p>[22] 2020-02-26</p> <p>[41] 2020-09-03</p> <p>[62] 3,127,717</p> <p>[30] EP (19305225.5) 2019-02-26</p>

## Canadian Divisional and Previously Unavailable Applications Open to Public Inspection

[21] **3,218,976**  
[13] A1

[25] EN  
[54] **AUTOMATED LITTER DEVICE**  
[54] **DISTRIBUTEUR DE LITIERE AUTOMATIQUE**  
[72] BAXTER, BRAD, US  
[72] SMITH, JASON, US  
[72] WEIHMAN, JASON, US  
[71] AUTOMATED PET CARE PRODUCTS, LLC, US  
[22] 2020-04-24  
[41] 2020-10-29  
[62] 3,136,454  
[30] US (62/837,965) 2019-04-24  
[30] US (62/982,865) 2020-02-28

[21] **3,218,979**  
[13] A1

[51] **Int.Cl. A61M 5/32 (2006.01) A61M 5/20 (2006.01) A61M 5/31 (2006.01)**  
[25] EN  
[54] **AUTO-INJECTOR WITH CAP**  
[54] **AUTO-INJECTEUR AVEC CAPUCHON**  
[72] BESSON, NICOLAS, FR  
[72] PLOUVIER, ADRIEN, FR  
[71] BECTON DICKINSON FRANCE, FR  
[22] 2020-02-26  
[41] 2020-09-03  
[62] 3,127,580  
[30] EP (19305227.1) 2019-02-26

[21] **3,219,006**  
[13] A1

[51] **Int.Cl. C07J 41/00 (2006.01) A61K 47/65 (2017.01) A61K 31/573 (2006.01)**  
[25] EN  
[54] **POLYETHYLENE GLYCOL-CONJUGATED GLUCOCORTICOID PRODRUGS AND COMPOSITIONS AND METHODS THEREOF**  
[54] **PROMEDICAMENTS GLUCOCORTICOIDES CONJUGUES A DU POLYETHYLENE GLYCOL ET COMPOSITIONS ET METHODES ASSOCIEES**  
[72] WANG, DONG, US  
[72] YUAN, FANG, US  
[72] JIA, ZHENSHAN, US  
[72] WANG, XIAOBEI, US  
[71] BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA, US  
[22] 2016-11-12  
[41] 2017-05-18  
[62] 3,004,444  
[30] US (62/254,512) 2015-11-12

[21] **3,219,007**  
[13] A1

[25] EN  
[54] **SYSTEM AND METHOD FOR EXTRACTING A PROTEIN FOOD PRODUCT**  
[54] **SYSTEME ET PROCEDE D'EXTRACTION D'UN PRODUIT ALIMENTAIRE PROTEINE**  
[72] MCFARLANE, PHILLIP, AU  
[72] MCKEEGAN, BRENDAN, AU  
[72] LINGHAM, CHRISTA, AU  
[72] LINGHAM, ROD, AU  
[71] AUSTRALIAN PLANT PROTEINS PTY LTD, AU  
[22] 2019-09-11  
[41] 2020-03-19  
[62] 3,112,127  
[30] AU (2018903408) 2018-09-11

[21] **3,219,030**  
[13] A1

[51] **Int.Cl. C07C 309/73 (2006.01) C07D 217/16 (2006.01)**  
[25] EN  
[54] **PROCESSES AND INTERMEDIATES FOR THE PREPARATION OF 2-(2,6-DICHLOROPHENYL)-1-[(1S,3R)-3-(HYDROXYMETHYL)-5-(3-HYDROXY-3-METHYLBUTYL)-1-METHYL-3,4-DIHYDROISOQUINOLIN-2(1H)-YL]ETHENONE**  
[54] **PROCEDES ET INTERMEDIAIRES POUR LA PREPARATION DE 2-(2,6-DICHLOROPHENYLE))-1-[(1S,3R)-3-(HYDROXYMETHYL)-5-(3-HYDROXY-3-METHYLBUTYL)-1-METHYL-3,4-DIHYDROISOQUINOLIN-2(1H)-YL]ETHENONE**  
[72] COLE, KEVIN PAUL, US  
[72] KALLMAN, NEIL JOHN, US  
[72] MAGNUS, NICHOLAS ANDREW, US  
[71] ELI LILLY AND COMPANY, US  
[22] 2020-06-11  
[41] 2020-12-24  
[62] 3,143,463  
[30] US (62/862,805) 2019-06-18

[21] **3,219,063**  
[13] A1

[25] EN  
[54] **PROCESSES AND INTERMEDIATES FOR THE PREPARATION OF 2-(2,6-DICHLOROPHENYL)-1-[(1S,3R)-3-(HYDROXYMETHYL)-5-(3-HYDROXY-3-METHYLBUTYL)-1-METHYL-3,4-DIHYDROISOQUINOLIN-2(1H)-YL]ETHENONE**  
[54] **PROCEDES ET INTERMEDIAIRES POUR LA PREPARATION DE 2-(2,6-DICHLOROPHENYLE))-1-[(1S,3R)-3-(HYDROXYMETHYL)-5-(3-HYDROXY-3-METHYLBUTYL)-1-METHYL-3,4-DIHYDROISOQUINOLIN-2(1H)-YL]ETHENONE**  
[72] COLE, KEVIN PAUL, US  
[72] KALLMAN, NEIL JOHN, US  
[72] MAGNUS, NICHOLAS ANDREW, US  
[71] ELI LILLY AND COMPANY, US  
[22] 2020-06-11  
[41] 2020-12-24  
[62] 3,143,463  
[30] US (62/862,805) 2019-06-18

**Demandes canadiennes apparentées par division et  
demandes mises à la disponibilité du public non disponibles auparavant**

[21] <b>3,219,083</b> [13] A1	[21] <b>3,219,102</b> [13] A1	[21] <b>3,219,115</b> [13] A1
[25] EN [54] <b>METHODS FOR TREATING OR PREVENTING INFLUENZA VIRUS INFECTION BY ADMINISTERING A SERINE PROTEASE INHIBITOR</b> [54] <b>METHODES DE TRAITEMENT OU DE PREVENTION D'UNE INFECTION PAR LE VIRUS DE LA GRIPPE PAR ADMINISTRATION D'UN INHIBITEUR DE SERINE PROTEASE</b> [72] PURCELL, LISA A., US [71] REGENERON PHARAMACEUTICALS, INC., US [22] 2013-04-15 [41] 2013-10-24 [62] 2,869,010 [30] US (61/624,519) 2012-04-16 [30] US (61/759,469) 2013-02-01	[25] EN [54] <b>METHOD AND APPARATUSES FOR MOBILE RETURNS</b> [54] <b>METHODES ET APPAREILS DE RETOURS PAR APPAREIL MOBILE</b> [72] BOLLING, HEATHER, US [72] DUNN, KENNETH, US [72] GERSTENBERGER, TROY, US [72] PEREGOY, BRENDA L., US [72] PUTMAN, BILLY, US [72] TOMIC, SAY, US [71] HOME DEPOT INTERNATIONAL, INC., US [22] 2016-05-27 [41] 2016-11-29 [62] 2,931,590 [30] US (14/726,080) 2015-05-29	[51] <b>Int.Cl. A61K 47/22 (2006.01) A61K 9/70 (2006.01) A61K 31/05 (2006.01) A61K 31/352 (2006.01) A61K 47/14 (2017.01)</b> [25] EN [54] <b>ORAL THIN FILM</b> [54] <b>FILM MINCE BUCCAL</b> [72] BAUER, MARIUS, DE [72] LINN, MICHAEL, DE [72] EMGENBROICH, MARCO, DE [72] SCHMITZ, CHRISTOPH, DE [72] MULLER, MARKUS, DE [71] LTS LOHMANN THERAPIE-SYSTEME AG, DE [22] 2020-01-10 [41] 2020-07-16 [62] 3,125,807 [30] DE (10 2019 100 483.7) 2019-01-10
[21] <b>3,219,095</b> [13] A1	[21] <b>3,219,106</b> [13] A1	[21] <b>3,219,245</b> [13] A1
[51] <b>Int.Cl. G06Q 10/0631 (2023.01) G06Q 10/04 (2023.01) H04Q 3/64 (2006.01)</b> [25] EN [54] <b>TECHNIQUES FOR ESTIMATING EXPECTED PERFORMANCE IN A TASK ASSIGNMENT SYSTEM</b> [54] <b>TECHNIQUES D'ESTIMATION DU RENDEMENT ATTENDU DANS UN SYSTEME D'ATTRIBUTION DE TACHES</b> [72] CHISHTI, ZIA, US [72] KAN, ITTAI, US [72] KHATRI, VIKASH, US [71] AFINITI, LTD., BM [22] 2018-04-05 [41] 2019-01-10 [62] 3,194,385 [30] US (15/645,277) 2017-07-10 [30] US (15/648,788) 2017-07-13	[25] EN [54] <b>METHODS, SYSTEMS, AND APPARATUS FOR USE IN MAIN PIPES CONNECTED TO BRANCH CONDUITS</b> [54] <b>METHODES, SYSTEMES ET APPAREIL A UTILISER DANS LES TUYAUX PRINCIPAUX RACCORDES AUX CONDUITS DE DERIVATION</b> [72] BAXTER, RICK, US [72] KODADEK, ROBERT, US [72] HERRLICH, HERMANN, US [72] MCKEEFREY, STEVEN, US [72] WEBSTER, JOHN, US [72] BONTUS, GEORGE, CA [72] GOLDBAND, RYAN, US [72] JAYNE, JOHN, US [72] HAUSER, MICHAEL, US [72] LYNN, BRIAN, US [71] INA ACQUISITION CORP., US [22] 2019-11-27 [41] 2020-06-04 [62] 3,118,761 [30] US (62/773,844) 2018-11-30 [30] US (62/798,841) 2019-01-30 [30] US (62/816,660) 2019-03-11	[25] EN [54] <b>SYSTEM AND METHOD FOR MEASURING AND CORRECTING ULTRASOUND PHASE DISTORTIONS INDUCED BY ABERRATING MEDIA</b> [54] <b>SYSTEME ET PROCEDURE DE MESURE ET DE CORRECTION DE DISTORSIONS DE PHASES ULTRASONORES INDUITES PAR DES MILIEUX ABERRANTS</b> [72] HYNYNEN, KULLERVO HENRIK, CA [72] O'REILLY, MEAGHAN ANNE, CA [71] SUNNYBROOK RESEARCH INSTITUTE, CA [22] 2014-03-04 [41] 2014-09-12 [62] 2,898,503 [30] US (61/771,992) 2013-03-04

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[21] **3,219,253**  
[13] A1

[25] EN  
[54] **SYSTEMS AND METHODS FOR PUSHING FIRMWARE BINARIES USING NESTED MULTI-THREADER OPERATIONS**  
[54] **SYSTEMES ET METHODES POUSSER DES BINAIRES DE MICROLOGICIELS A L'AIDE DE TRAITEMENT MULTIFILIERES NICHE**  
[72] RAKHIMOV, RINAT, CA  
[71] BANK OF MONTREAL, CA  
[22] 2020-01-07  
[41] 2020-07-08  
[62] 3,132,498  
[30] US (62/789,845) 2019-01-08

[21] **3,219,264**  
[13] A1

[25] EN  
[54] **APPARATUSES AND SYSTEMS FOR PREPARING A MEAT PRODUCT**  
[54] **APPAREILS ET SYSTEMES DE PREPARATION D'UN PRODUIT DE VIANDE**  
[72] LEUNG, MATTHEW, US  
[72] CARSWELL, KATHLEEN, US  
[72] WARNER, MICHELLE, US  
[72] VANDERPOL, RYAN EDWARD, US  
[72] HSIU, THOMAS PEI-JA, US  
[71] UPSIDE FOODS, INC., US  
[22] 2020-11-20  
[41] 2023-07-26  
[62] 3,198,589  
[30] US (62/938,087) 2019-11-20

[21] **3,219,266**  
[13] A1

[51] **Int.Cl. A61M 5/20 (2006.01) A61M 5/31 (2006.01)**  
[25] EN  
[54] **STATUS SENSING SYSTEMS WITHIN AN INJECTION DEVICE ASSEMBLY**  
[54] **SYSTEMES DE DETECTION D'ETATS DANS UN ENSEMBLE DE DISPOSITIF D'INJECTION**  
[72] KATUIN, JOSEPH EDWARD, US  
[72] WIESLER, ADAM NATHANIEL, US  
[71] ELI LILLY AND COMPANY, US  
[22] 2019-09-27  
[41] 2020-04-09  
[62] 3,114,111  
[30] US (62/740,539) 2018-10-03  
[30] US (62/818,308) 2019-03-14

[21] **3,219,268**  
[13] A1

[51] **Int.Cl. A01G 33/00 (2006.01) A01D 44/00 (2006.01) A01H 13/00 (2006.01)**  
[25] EN  
[54] **CULTIVATION SYSTEMS FOR SEAWEEDES**  
[54] **SYSTEMES DE CULTURE POUR ALGUES MARINES**  
[72] CLOUGH, NORMAN E., US  
[71] W. L. GORE & ASSOCIATES, INC., US  
[22] 2020-06-26  
[41] 2020-12-30  
[62] 3,140,468  
[30] US (62/867,707) 2019-06-27

[21] **3,219,286**  
[13] A1

[51] **Int.Cl. A61M 5/20 (2006.01) A61M 5/31 (2006.01)**  
[25] EN  
[54] **STATUS SENSING SYSTEMS WITHIN AN INJECTION DEVICE ASSEMBLY**  
[54] **SYSTEMES DE DETECTION D'ETATS DANS UN ENSEMBLE DE DISPOSITIF D'INJECTION**  
[72] ADAMS, JOHN WILLIAM, US  
[72] CONNAUGHTON, EOIN PATRICK, US  
[72] DIELS, TOON, US  
[72] SAVAGE, MIRIAM ELIZABETH, US  
[72] SWEENEY, FIACHRA, US  
[72] VAES, STEFAN MATHIEU ALFONS, US  
[72] PSZENNY, SEAN MATTHEW, US  
[71] ELI LILLY AND COMPANY, US  
[22] 2019-09-27  
[41] 2020-04-09  
[62] 3,114,111  
[30] US (62/740,539) 2018-10-03  
[30] US (62/818,308) 2019-03-14

[21] **3,219,298**  
[13] A1

[51] **Int.Cl. A61M 15/00 (2006.01) A61J 1/03 (2023.01)**  
[25] EN  
[54] **DRUG DOSE CARTRIDGE FOR AN INHALER DEVICE**  
[54] **CARTOUCHE DE DOSE DE MEDICAMENT POUR UN DISPOSITIF D'INHALATEUR**  
[72] DAVIDSON, PERRY, IL  
[72] SCHORR, AARON, IL  
[72] SCHWARTZ, BINYAMIN, IL  
[72] LIFSHITZ, ROEE, IL  
[71] SYQE MEDICAL LTD., IL  
[22] 2015-06-30  
[41] 2016-01-07  
[62] 2,953,074  
[30] US (62/019,225) 2014-06-30  
[30] US (62/035,588) 2014-08-11  
[30] US (62/085,772) 2014-12-01  
[30] US (62/086,208) 2014-12-02  
[30] US (62/164,710) 2015-05-21

[21] **3,219,300**  
[13] A1

[51] **Int.Cl. C08J 11/08 (2006.01) B29B 17/00 (2006.01) C08J 11/04 (2006.01)**  
[25] EN  
[54] **PROCESSES FOR RECYCLING POLYSTYRENE WASTE AND/OR POLYSTYRENE COPOLYMER WASTE**  
[54] **PROCEDES DE RECYCLAGE DE DECHETS DE POLYSTYRENE ET/OU DE DECHETS DE COPOLYMER DE POLYSTYRENE**  
[72] COTE, ROLAND, CA  
[71] POLYSTYVERT INC., CA  
[22] 2019-10-25  
[41] 2020-04-30  
[62] 3,153,154  
[30] US (62/751,037) 2018-10-26  
[30] US (62/760,532) 2018-11-13

**Demandes canadiennes apparentées par division et  
demandes mises à la disponibilité du public non disponibles auparavant**

[21] **3,219,315**  
[13] A1

[25] EN  
[54] **METHODS AND APPARATUS FOR PERFORMING PHASE OPERATIONS**  
[54] **PROCEDES ET APPAREIL DE REALISATION D'OPERATIONS DE PHASE**  
[72] GIDNEY, CRAIG, US  
[71] GOOGLE LLC, US  
[22] 2019-04-16  
[41] 2019-10-24  
[62] 3,080,180  
[30] US (62/658,993) 2018-04-17

[21] **3,219,326**  
[13] A1

[25] EN  
[54] **APPARATUSES, SYSTEMS AND METHODS FOR PRODUCING HYDROCARBON MATERIAL FROM A SUBTERRANEAN FORMATION**  
[54] **APPAREILS, SYSTEMES ET PROCEDES DE PRODUCTION D'UN MATERIAU HYDROCARBONE A PARTIR D'UNE FORMATION SOUTERRAINE**  
[72] RAVENSBERGEN, JOHN, CA  
[72] LAUN, LYLE, CA  
[72] WERRIES, MICHAEL, CA  
[72] JOHNSON, TIM, CA  
[72] MONTERO, JUAN, CA  
[72] GILLIS, BROCK, CA  
[71] NCS MULTISTAGE INC., CA  
[22] 2018-03-06  
[41] 2018-09-13  
[62] 3,055,596  
[30] US (62/467,855) 2017-03-07

[21] **3,219,332**  
[13] A1

[25] EN  
[54] **ENCODER, DECODER, ENCODING METHOD, AND DECODING METHOD**  
[54] **DISPOSITIF DE CODAGE, DISPOSITIF DE DECODAGE, PROCEDE DE CODAGE ET PROCEDE DE DECODAGE**  
[72] LIAO, RU LING, SG  
[72] LIM, CHONG SOON, SG  
[72] SUN, HAI WEI, SG  
[72] TEO, HAN BOON, SG  
[72] LI, JING YA, SG  
[72] SHASHIDHAR, SUGHOSH PAVAN, SG  
[72] ABE, KIYOFUMI, JP  
[72] NISHI, TAKAHIRO, JP  
[72] TOMA, TADAMASA, JP  
[71] PANASONIC INTELLECTUAL PROPERTY CORPORATION OF AMERICA, US  
[22] 2019-07-02  
[41] 2020-01-09  
[62] 3,105,461  
[30] US (62/693,987) 2018-07-04

[21] **3,219,372**  
[13] A1

[25] EN  
[54] **COMBINATION OF A CD30XCD16 ANTIBODY WITH A PD-1 ANTAGONIST FOR THERAPY**  
[54] **COMBINAISON D'UN ANTICORPS ANTI-CD30XCD16 AVEC UN ANTAGONISTE PD-1 A DES FINS THERAPEUTIQUES**  
[72] TREDER, MARTIN, DE  
[72] REUSCH, UWE, DE  
[72] MARSCHNER, JENS-PETER, DE  
[72] KNACKMUSS, STEFAN, DE  
[71] AFFIMED GMBH, DE  
[22] 2016-05-04  
[41] 2016-11-10  
[62] 2,983,706  
[30] EP (15166303.6) 2015-05-04  
[30] EP (16152650.4) 2016-01-25

[21] **3,219,374**  
[13] A1

[51] **Int.Cl. C07F 7/22 (2006.01)**  
[25] EN  
[54] **MONOALKYL TIN COMPOUNDS WITH LOW POLYALKYL CONTAMINATION, THEIR COMPOSITIONS AND METHODS**  
[54] **COMPOSES DE MONOALKYLETAIN AYANT UNE FAIBLE CONTAMINATION PAR POLYALKYLES, LEURS COMPOSITIONS ET PROCEDES**  
[72] EDSON, JOSEPH B., US  
[72] LAMKIN, THOMAS J., US  
[72] EARLEY, WILLIAM, US  
[72] WAMBACH, TRUMAN, US  
[72] ANDERSON, JEREMY T., US  
[71] INPRIA CORPORATION, US  
[22] 2019-03-28  
[41] 2019-10-17  
[62] 3,080,934  
[30] US (15/950,286) 2018-04-11  
[30] US (15/950,292) 2018-04-11

[21] **3,219,400**  
[13] A1

[25] EN  
[54] **HOLLOW TABLE TOP**  
[54] **PANNEAU DE BUREAU CREUX**  
[72] LENG, LUHAO, CN  
[71] NEW-TEC INTEGRATION (XIAMEN) CO., LTD., CN  
[22] 2016-09-13  
[41] 2017-03-23  
[62] 2,998,746  
[30] CN (201520717029.1) 2015-09-16

[21] **3,219,402**  
[13] A1

[25] EN  
[54] **MULTI-OBJECTIVE STEAM TEMPERATURE CONTROL**  
[54] **CONTROLE DE LA TEMPERATURE DE VAPEUR MULTIOBJECTIF**  
[72] CHENG, XU, US  
[72] RAO, RANJIT R., US  
[72] WHALEN, RICHARD J., US  
[71] EMERSON PROCESS MANAGEMENT POWER & WATER SOLUTIONS, INC., US  
[22] 2017-07-05  
[41] 2018-01-29  
[62] 2,972,626  
[30] US (15/223,704) 2016-07-29

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[21] **3,219,407**  
[13] A1

[25] EN  
[54] **MULTI-OBJECTIVE STEAM TEMPERATURE CONTROL**  
[54] **CONTROLE DE LA TEMPERATURE DE VAPEUR MULTIOBJECTIF**  
[72] CHENG, XU, US  
[72] RAO, RANJIT R., US  
[72] WHALEN, JR., RICHARD J., US  
[71] EMERSON PROCESS MANAGEMENT POWER & WATER SOLUTIONS, INC., US  
[22] 2017-07-05  
[41] 2018-01-29  
[62] 2,972,626  
[30] US (15/223,704) 2016-07-29

[21] **3,219,413**  
[13] A1

[51] **Int.Cl. C12Q 1/6869 (2018.01) C12Q 1/6844 (2018.01) C12Q 1/6853 (2018.01) C12M 1/34 (2006.01) C12P 19/34 (2006.01)**  
[25] EN  
[54] **NUCLEIC ACID SYNTHESIS TECHNIQUES**  
[54] **TECHNIQUES DE SYNTHÈSE D'ACIDE NUCLEIQUE**  
[72] RONAGHI, MOSTAFA, US  
[72] HE, MOLLY, US  
[72] CHEN, CHENG-YAO, US  
[72] PREVITE, MICHAEL, US  
[72] BOWEN, SHANE, US  
[71] ILLUMINA, INC., US  
[22] 2015-05-14  
[41] 2015-11-19  
[62] 2,951,118  
[30] US (61/994,498) 2014-05-16

[21] **3,219,434**  
[13] A1

[25] EN  
[54] **ADJUSTMENT AND ALIGNMENT SYSTEM FOR A ROLLER BLIND**  
[54] **SYSTEME D'AJUSTEMENT ET D'ALIGNEMENT DESTINE A UN STORE ENROULEUR**  
[72] NG, PHILIP, CA  
[71] ZMC METAL COATING INC., CA  
[22] 2018-07-24  
[41] 2019-01-31  
[62] 3,012,256  
[30] US (62/539,022) 2017-07-31  
[30] US (62/616,004) 2018-01-11

[21] **3,219,439**  
[13] A1

[25] EN  
[54] **LOAD CONTROL SYSTEM RESPONSIVE TO THE LOCATION OF AN OCCUPANT AND/OR MOBILE DEVICE**  
[54] **SYSTEME DE REGULATION DE LA CHARGE QUI REpond A L'EMPLACEMENT DU PASSAGER ET/OU DU DISPOSITIF MOBILE**  
[72] BAKER, RHODES B., US  
[72] CAMDEN, RICHARD S., US  
[72] KUMAR, SANJEEV, US  
[71] LUTRON TECHNOLOGY COMPANY LLC, US  
[22] 2016-08-05  
[41] 2017-02-09  
[62] 3,080,452  
[30] US (62/201,522) 2015-08-05

[21] **3,219,445**  
[13] A1

[51] **Int.Cl. A61B 17/02 (2006.01) A61B 1/32 (2006.01) A61B 17/00 (2006.01) A61B 17/04 (2006.01) A61B 17/12 (2006.01) A61B 17/29 (2006.01)**  
[25] EN  
[54] **TISSUE RETRACTION DEVICE AND DELIVERY SYSTEM**  
[54] **DISPOSITIF DE RETRACTION DE TISSU ET SYSTEME DE MISE EN PLACE**  
[72] UNGER, JOHN, US  
[72] OTO, CHRISTOPHER K., US  
[72] LEE, DANNY SHU-HUAN, US  
[72] WALES, RYAN, US  
[72] BURNHAM, ALEXANDER JOSEPH, US  
[72] ANDREOTTI, TRACY, US  
[71] BOSTON SCIENTIFIC SCIMED, INC., US  
[22] 2019-04-30  
[41] 2019-11-07  
[62] 3,093,011  
[30] US (62/665,441) 2018-05-01

[21] **3,219,461**  
[13] A1

[25] EN  
[54] **METHODS AND APPARATUS FOR INSULIN DOSING GUIDANCE AND DECISION SUPPORT FOR DIABETIC PATIENT EXERCISE**  
[54] **PROCEDES ET APPAREIL DE GUIDAGE DE DOSAGE D'INSULINE ET D'AIDE A LA DECISION POUR EXERCICE DE PATIENT DIABETIQUE**  
[72] EDWARDS, STEPHANIE SMITH, US  
[72] KATZ, MICHELLE LYNNE, US  
[72] RIDDELL, MICHAEL CHARLES, US  
[72] WOLPERT, HOWARD ALLAN, US  
[71] ELI LILLY AND COMPANY, US  
[22] 2020-03-26  
[41] 2020-10-08  
[62] 3,132,134  
[30] US (62/827,350) 2019-04-01

[21] **3,219,477**  
[13] A1

[25] EN  
[54] **ELECTRIC-POWERED LOCOMOTIVE APPARATUS AND METHOD**  
[54] **APPAREIL ET METHODE DE LOCOMOTIVE ELECTRIQUE**  
[72] MULLIGAN, KYLE R., CA  
[72] WONG, GARY, CA  
[72] FINDLAY, MATTHEW, CA  
[72] DUBINSKY, MILAN, CA  
[72] KOWALCZYK, VERONIKA, CA  
[72] NGUYEN, MINH, CA  
[72] FISCHER, CODY, CA  
[72] CHANG, SOON, CA  
[71] CANADIAN PACIFIC RAILWAY COMPANY, CA  
[22] 2022-08-19  
[41] 2022-12-28  
[62] 3,201,976  
[30] US (63/315,369) 2022-03-01  
[30] US (63/356,282) 2022-06-28

**Demandes canadiennes apparentées par division et  
demandes mises à la disponibilité du public non disponibles auparavant**

[21] **3,219,493**  
[13] A1

[51] **Int.Cl. B61C 3/00 (2006.01) B60L 50/75 (2019.01) B60L 7/10 (2006.01) B60L 15/00 (2006.01) B60L 15/04 (2006.01) B60L 15/38 (2006.01)**

[25] EN

[54] **ELECTRIC-POWERED LOCOMOTIVE APPARATUS AND METHOD**

[54] **APPAREIL ET METHODE DE LOCOMOTIVE ELECTRIQUE**

[72] MULLIGAN, KYLE R., CA  
[72] WONG, GARY, CA  
[72] FINDLAY, MATTHEW, CA  
[72] DUBINSKY, MILAN, CA  
[72] KOWALCZYK, VERONIKA, CA  
[72] NGUYEN, MINH, CA  
[72] FISCHER, CODY, CA  
[72] CHANG, SOON, CA  
[71] CANADIAN PACIFIC RAILWAY COMPANY, CA

[22] 2022-08-19  
[41] 2022-12-28  
[62] 3,201,976  
[30] US (63/315,369) 2022-03-01  
[30] US (63/356,282) 2022-06-28

[21] **3,219,512**  
[13] A1

[25] EN

[54] **AUDIO ENCODING AND DECODING USING PRESENTATION TRANSFORM PARAMETERS**

[54] **CODAGE ET DECODAGE AUDIO A L'AIDE DE PARAMETRES DE TRANSFORMATION DE PRESENTATION**

[72] BREEBAART, DIRK JEROEN, AU  
[72] COOPER, DAVID M., AU  
[72] SAMUELSSON, LEIF J., SE  
[72] KOPPENS, JEROEN, SE  
[72] WILSON, RHONDA JOY, US  
[72] PURNHAGEN, HEIKO, SE  
[72] STAHLMANN, ALEXANDER, DE  
[71] DOLBY INTERNATIONAL AB, NL  
[71] DOLBY LABORATORIES LICENSING CORPORATION, US

[22] 2016-08-24  
[41] 2017-03-02  
[62] 2,999,328  
[30] US (62/209,735) 2015-08-25  
[30] EP (15189094.4) 2015-10-09

[21] **3,219,515**  
[13] A1

[51] **Int.Cl. A61F 2/16 (2006.01) A61L 27/14 (2006.01)**

[25] EN

[54] **INTRAOCULAR LENS MATERIALS AND COMPONENTS**

[54] **MATERIAUX ET COMPOSANTS POUR LENTILLES INTRAOCULAIRES**

[72] HAJELA, SHARAD, US  
[72] ABDELSADEK, GOMAA, US  
[72] HALENBECK, SEAN, US  
[71] ALCON INC., CH  
[22] 2016-06-10  
[41] 2016-12-15  
[62] 2,987,311  
[30] US (62/173,877) 2015-06-10  
[30] US (62/321,704) 2016-04-12

[21] **3,219,518**  
[13] A1

[51] **Int.Cl. A61M 15/00 (2006.01)**

[25] EN

[54] **COMPLIANCE MONITORING MODULE FOR AN INHALER**

[54] **MODULE DE SURVEILLANCE DE CONFORMITE POUR UN INHALATEUR**

[72] MORRISON, MARK STEVEN, US  
[72] WEITZEL, DOUGLAS E., US  
[72] CALDERON OLIVERAS, ENRIQUE, IE  
[72] BUCK, DANIEL, IE  
[71] NORTON (WATERFORD) LIMITED, IE

[22] 2015-08-28  
[41] 2016-03-03  
[62] 2,958,883  
[30] US (62/043,114) 2014-08-28

[21] **3,219,532**  
[13] A1

[25] EN

[54] **ADJUSTMENT AND ALIGNMENT SYSTEM FOR A ROLLER BLIND**

[54] **SYSTEME D'AJUSTEMENT ET D'ALIGNEMENT DESTINE A UN STORE ENROULEUR**

[72] NG, PHILIP, CA  
[71] ZMC METAL COATING INC., CA

[22] 2018-07-24  
[41] 2019-01-31  
[62] 3,012,256  
[30] US (62/539,022) 2017-07-31  
[30] US (62/616,004) 2018-01-11

[21] **3,219,538**  
[13] A1

[25] EN

[54] **FLUOROCYCLOPENTENYL CYTOSINE USES AND PROCESSES OF PREPARATION**

[54] **UTILISATIONS DE FLUOROCYCLOPENTENYL CYTOSINE ET PROCEDES DE PREPARATION DE CE COMPOSE**

[72] LEE, YOUNG BOK, US  
[72] KIM, DEOG JOONG, US  
[72] PETERS, GODEFRIDUS J., US  
[72] SARKISJAN, DZJEMMA, US  
[72] MAZHARI, REZA, US  
[71] REXAHN PHARMACEUTICALS, INC., US

[22] 2016-06-09  
[41] 2016-12-15  
[62] 2,986,703  
[30] US (62/173,174) 2015-06-09  
[30] US (62/210,708) 2015-08-27  
[30] US (62/289,801) 2016-02-01  
[30] US (62/319,369) 2016-04-07

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[21] **3,219,540**  
[13] A1

[51] **Int.Cl. G10L 19/008 (2013.01)**  
[25] EN  
[54] **APPARATUS, METHOD AND COMPUTER PROGRAM FOR ENCODING, DECODING, SCENE PROCESSING AND OTHER PROCEDURES RELATED TO DIRAC BASED SPATIAL AUDIO CODING**

[54] **APPAREIL, PROCEDE ET PROGRAMME INFORMATIQUE POUR LE CODAGE, LE DECODAGE, LE TRAITEMENT DE SCENE ET D'AUTRES PROCEDURES ASSOCIEES A UN CODAGE AUDIO SPATIAL BASE SUR DIRAC**

[72] FUCHS, GUILLAUME, DE  
[72] HERRE, JUERGEN, DE  
[72] KUECH, FABIEN, DE  
[72] DOEHLA, STEFAN, DE  
[72] MULTRUS, MARKUS, DE  
[72] THIERGART, OLIVER, DE  
[72] WUEBOLT, OLIVER, DE  
[72] GHIDO, FLORIN, DE  
[72] BAYER, STEFAN, DE  
[72] JAEGER, WOLFGANG, DE  
[71] FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V., DE  
[22] 2018-10-01  
[41] 2019-04-11  
[62] 3,076,703  
[30] EP (17194816.9) 2017-10-04

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[21] **3,219,549**  
[13] A1

[51] **Int.Cl. A01G 23/10 (2006.01) C13B 10/00 (2011.01)**  
[25] EN  
[54] **METHOD TO STIMULATE TREE SAP SELF-EJECTION FROM A TREE**

[54] **PROCEDE POUR STIMULER UNE AUTO-INJECTION DE SEVE D'ARBRE A PARTIR D'UN ARBRE**

[72] OLDEWENING, SCOTT, CA  
[71] OLDEWENING, SCOTT, CA  
[22] 2019-03-13  
[41] 2019-10-17  
[62] 3,092,751  
[30] US (62/642,278) 2018-03-13  
[30] US (16/352,216) 2019-03-13

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[21] **3,219,559**  
[13] A1

[25] EN  
[54] **UTILITY VEHICLE**  
[54] **VEHICULE UTILITAIRE**

[72] SCHOUNARD, KYLE J., US  
[72] BARBREY, WILLIAM L., US  
[72] PETERSON, SHAWN D., US  
[72] WEBER, DANIEL S., US  
[72] FRIE, DEREK M., US  
[71] POLARIS INDUSTRIES INC., US  
[22] 2019-04-03  
[41] 2019-10-10  
[62] 3,140,163  
[30] US (62/655384) 2018-04-10

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[21] **3,219,566**  
[13] A1

[51] **Int.Cl. G10L 19/008 (2013.01)**  
[25] EN  
[54] **APPARATUS, METHOD AND COMPUTER PROGRAM FOR ENCODING, DECODING, SCENE PROCESSING AND OTHER PROCEDURES RELATED TO DIRAC BASED SPATIAL AUDIO CODING**

[54] **APPAREIL, PROCEDE ET PROGRAMME INFORMATIQUE POUR LE CODAGE, LE DECODAGE, LE TRAITEMENT DE SCENE ET D'AUTRES PROCEDURES ASSOCIEES A UN CODAGE AUDIO SPATIAL BASE SUR DIRAC**

[72] FUCHS, GUILLAUME, DE  
[72] HERRE, JUERGEN, DE  
[72] KUECH, FABIAN, DE  
[72] DOEHLA, STEFAN, DE  
[72] MULTRUS, MARKUS, DE  
[72] THIERGART, OLIVER, DE  
[72] WUEBBOLT, OLIVER, DE  
[72] GHIDO, FLORIN, DE  
[72] BAYER, SREFAN, DE  
[72] JAEGER, WOLFGANG, DE  
[71] FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V., DE  
[22] 2018-10-01  
[41] 2019-04-11  
[62] 3,076,703  
[30] EP (17194816.9) 2017-10-04

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[21] **3,219,571**  
[13] A1

[51] **Int.Cl. F04B 17/03 (2006.01) B60P 3/00 (2006.01) E21B 43/26 (2006.01) F04B 17/06 (2006.01) F04B 23/04 (2006.01)**

[25] EN  
[54] **MOBILE FRACTURING PUMP TRANSPORT FOR HYDRAULIC FRACTURING OF SUBSURFACE GEOLOGICAL FORMATIONS**

[54] **TRANSPORT DE POMPE DE FRACTURATION MOBILE POUR FRACTURATION HYDRAULIQUE DE FORMATIONS GEOLOGIQUES EN SUBSURFACE**

[72] JENSEN, NEAL, US  
[72] MORRIS, JEFFREY G., US  
[72] BODISHBAUGH, ADRIAN BENJAMIN, US  
[71] TYPHON TECHNOLOGY SOLUTIONS, LLC, US  
[22] 2016-08-31  
[41] 2018-03-08  
[62] 3,123,230

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[21] **3,219,580**  
[13] A1

[51] **Int.Cl. B25H 3/00 (2006.01) A47B 88/919 (2017.01) A47B 97/00 (2006.01)**

[25] EN  
[54] **TOOL STORAGE UNITS WITH INTEGRATED POWER**

[54] **SYSTEME DE RANGEMENT POUR OUTILS A ALIMENTATION INTEGREE**

[72] DOERFLINGER, DAVID A., US  
[72] EGGERT, DANIEL, US  
[71] SNAP-ON INCORPORATED, US  
[22] 2020-11-10  
[41] 2021-05-12  
[62] 3,159,714  
[30] US (62/934,330) 2019-11-12  
[30] US (62/935,406) 2019-11-14  
[30] US (17/085,656) 2020-10-30



**Demandes canadiennes apparentées par division et  
demandes mises à la disponibilité du public non disponibles auparavant**

[21] **3,219,583**  
[13] A1

[51] **Int.Cl. B01J 47/12 (2017.01) C08J 7/18 (2006.01)**

[25] EN

[54] **PROCESSING METHOD OF BASE MATERIAL SHEET, MANUFACTURING METHOD OF MODIFIED BASE MATERIAL SHEET, BASE MATERIAL WITH GRAFTED POLYMER CHAIN, AND ION EXCHANGE MEMBRANE**

[54] **PROCEDE DE TRAITEMENT POUR FEUILLE DE MATERIAU DE BASE, PROCEDE DE PRODUCTION POUR FEUILLE DE MATERIAU DE BASE MODIFIE, MATERIAU DE BASE COMPRENANT UNE CHAINE POLYMERE GREFFEE ET MEMBRANE ECHANGEUSE D'IONS**

[72] OKUYA, TAMAO, JP  
[72] TAYANAGI, JUNICHI, JP  
[71] AGC ENGINEERING CO., LTD., JP  
[22] 2017-08-09  
[41] 2018-02-15  
[62] 3,032,367  
[30] JP (2016-157874) 2016-08-10

[21] **3,219,601**  
[13] A1

[25] EN

[54] **SYSTEMS AND METHODS FOR ENDOLUMINAL DEVICE TREATMENT**

[54] **SYSTEMES ET PROCEDES DE TRAITEMENT DE DISPOSITIF ENDOLUMINAL**

[72] GOEPFRICH, JAMES L., US  
[72] KARINIEMI, THOMAS E., US  
[72] MONTGOMERY, WILLIAM D., US  
[72] SHAW, EDWARD E., US  
[71] W. L. GORE & ASSOCIATES, INC., US  
[22] 2020-01-17  
[41] 2020-07-30  
[62] 3,127,225  
[30] US (62/794,825) 2019-01-21

[21] **3,219,639**  
[13] A1

[25] EN

[54] **METHODS AND SYSTEMS FOR CONNECTING TO A WIRELESS NETWORK REAL-TIME BATTERY FAULT DETECTION AND STATE-OF-HEALTH MONITORING**

[54] **DETECTION DE DEFAUT DE BATTERIE EN TEMPS REEL ET SURVEILLANCE D'ETAT DE SANTE**

[72] HOM, LEWIS ROMEO, US  
[71] WISK AERO LLC, US  
[22] 2021-03-10  
[41] 2021-09-16  
[62] 3,169,651  
[30] US (62/988,853) 2020-03-12  
[30] US (17/196,848) 2021-03-09

[21] **3,219,665**  
[13] A1

[51] **Int.Cl. C07K 16/28 (2006.01) C07K 16/30 (2006.01) C07K 16/46 (2006.01) C12N 15/13 (2006.01)**

[25] EN

[54] **ANTI-BCMA ANTIBODIES, ANTI-CD3 ANTIBODIES AND BI-SPECIFIC ANTIBODIES BINDING TO BCMA AND CD3**

[54] **ANTICORPS ANTI-BCMA, ANTICORPS, ANTI-CD3 ET ANTICORPS BISPECIFIQUES SE LIANT A BCMA ET A CD3**

[72] KUO, TRACY CHIA-CHIEN, US  
[72] CHAPARRO RIGGERS, JAVIER FERNANDO, US  
[72] CHEN, WEI, US  
[72] CHEN, AMY SHAW-RU, US  
[72] PASCUA, EDWARD DERRICK, US  
[72] VAN BLARCOM, THOMAS JOHN, US  
[72] BOUSTANY, LEILA MARIE, US  
[72] HO, WEIHSIEN, US  
[72] YEUNG, YIK ANDY, US  
[72] STROP, PAVEL, US  
[72] RAJPAL, ARVIND, US  
[71] PFIZER INC., US  
[22] 2016-03-30  
[41] 2016-10-13  
[62] 2,925,329  
[30] US (62/146,504) 2015-04-13  
[30] US (62/146,843) 2015-04-13  
[30] US (62/301,582) 2016-02-29

[21] **3,219,680**  
[13] A1

[25] EN

[54] **ANTI-BCMA ANTIBODIES, ANTI-CD3 ANTIBODIES AND BI-SPECIFIC ANTIBODIES BINDING TO BCMA AND CD3**

[54] **ANTICORPS ANTI-BCMA, ANTICORPS, ANTI-CD3 ET ANTICORPS BISPECIFIQUES SE LIANT A BCMA ET A CD3**

[72] KUO, TRACY CHIA-CHIEN, US  
[72] CHAPARRO RIGGERS, JAVIER FERNANDO, US  
[72] CHEN, WEI, US  
[72] CHEN, AMY SHAW-RU, US  
[72] PASCUA, EDWARD DERRICK, US  
[72] VAN BLARCOM, THOMAS JOHN, US  
[72] BOUSTANY, LEILA MARIE, US  
[72] HO, WEIHSIEN, US  
[72] YEUNG, YIK ANDY, US  
[72] STROP, PAVEL, US  
[72] RAJPAL, ARVIND, US  
[71] PFIZER INC., US  
[22] 2016-03-30  
[41] 2016-10-13  
[62] 2,925,329  
[30] US (62/146,504) 2015-04-13  
[30] US (62/146,843) 2015-04-13  
[30] US (62/301,582) 2016-02-29

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[21] **3,219,684**  
[13] A1

[25] EN  
[54] **ANTI-BCMA ANTIBODIES, ANTI-CD3 ANTIBODIES AND BI-SPECIFIC ANTIBODIES BINDING TO BCMA AND CD3**  
[54] **ANTICORPS ANTI-BCMA, ANTICORPS, ANTI-CD3 ET ANTICORPS BISPECIFIQUES SE LIANT A BCMA ET A CD3**  
[72] KUO, TRACY CHIA-CHIEN, US  
[72] CHAPARRO RIGGERS, JAVIER FERNANDO, US  
[72] CHEN, WEI, US  
[72] CHEN, AMY SHAW-RU, US  
[72] PASCUA, EDWARD DERRICK, US  
[72] VAN BLARCOM, THOMAS JOHN, US  
[72] BOUSTANY, LEILA MARIE, US  
[72] HO, WEIHSIEN, US  
[72] YEUNG, YIK ANDY, US  
[72] STROP, PAVEL, US  
[72] RAJPAL, ARVIND, US  
[71] PFIZER INC., US  
[22] 2016-03-30  
[41] 2016-10-13  
[62] 2,925,329  
[30] US (62/146,504) 2015-04-13  
[30] US (62/146,843) 2015-04-13  
[30] US (62/301,582) 2016-02-29

[21] **3,219,704**  
[13] A1

[51] **Int.Cl. A47J 31/44 (2006.01) A47J 31/36 (2006.01)**  
[25] EN  
[54] **BEVERAGE PREPARATION WITH PRESSURIZED LIQUID**  
[54] **PREPARATION DE BOISSON AVEC LIQUIDE SOUS PRESSION**  
[72] FLETCHER, PAUL, GB  
[72] KNOWLES, DAVID, GB  
[72] THOMPSON, MARK, GB  
[72] MOULD, PHILIP, GB  
[72] AUSTIN, PETER, GB  
[71] LAVAZZA PROFESSIONAL NORTH AMERICA, LLC, US  
[22] 2015-10-23  
[41] 2016-04-28  
[62] 2,964,502  
[30] GB (1418881.7) 2014-10-23

[21] **3,219,720**  
[13] A1

[25] EN  
[54] **COMPOSITIONS AND METHODS FOR INHIBITING GENE EXPRESSION OF ALPHA-1 ANTITRYPSIN**  
[54] **PERMETTIONS ET METHODES PERMETTANT D'INHIBER L'EXPRESSION DU GENE DE L'ALPHA-1 ANTITRYPSINE**  
[72] WOODDELL, CHRISTINE I, US  
[72] LEWIS, DAVID L., US  
[72] WAKEFIELD, DARREN H., US  
[72] ALMEIDA, LAUREN, US  
[72] KANNER, STEVEN B., US  
[71] ARROWHEAD PHARMACEUTICALS, INC., US  
[22] 2015-06-16  
[41] 2015-12-23  
[62] 2,951,700  
[30] US (62/013,288) 2014-06-17  
[30] US (14/740,307) 2015-06-16

[21] **3,219,727**  
[13] A1

[51] **Int.Cl. A61K 39/10 (2006.01) A61K 39/295 (2006.01) A61K 47/12 (2006.01) A61K 47/18 (2017.01) A61P 31/04 (2006.01) A61P 31/14 (2006.01) A61P 37/04 (2006.01)**  
[25] EN  
[54] **VACCINES COMPRISING LIVE ARO MUTANT BORDETELLA BRONCHISEPTICA**  
[54] **VACCINS RENFERMANT UNE BACTERIE ARO MUTANTE VIVANTE ARO BORDETELLA BROCHISEPTICA**  
[72] O'CONNELL, KEVIN A., US  
[72] LAFLEUR, RHONDA, US  
[72] JAYAPPA, HUCHAPPA GOWDA, US  
[72] WASMOEN, TERRI LEE, US  
[71] INTERVET INTERNATIONAL B.V., NL  
[22] 2011-12-21  
[41] 2012-06-28  
[62] 2,821,422  
[30] US (61/425,855) 2010-12-22  
[30] EP (11152829.5) 2011-02-01  
[30] US (61/556,975) 2011-11-08

[21] **3,219,776**  
[13] A1

[51] **Int.Cl. A61K 9/127 (2006.01) A61K 47/10 (2017.01) A61K 47/26 (2006.01) A61P 19/02 (2006.01)**  
[25] EN  
[54] **LIPOSOMAL FORMULATION FOR JOINT LUBRICATION**  
[54] **FORMULATION LIPOSOMALE POUR LUBRIFICATION D'ARTICULATION**  
[72] BARENHOLZ, YECHEZKEL, IL  
[72] DOLEV, YANIV, IL  
[72] TURJEMAN, KEREN, IL  
[72] SARFATI, GADI, IL  
[72] AYAL-HERSHKOVITZ, MATY, IL  
[71] MOEBIUS MEDICAL LTD., IL  
[22] 2018-08-21  
[41] 2019-02-28  
[62] 3,073,368  
[30] US (62/548,429) 2017-08-22

[21] **3,219,787**  
[13] A1

[25] EN  
[54] **METHODS AND SYSTEMS FOR CONNECTING TO A WIRELESS NETWORK**  
[54] **METHODES ET SYSTEMES DE CONNEXION A UN RESEAU SANS FIL**  
[72] LEE, YIU LEUNG, US  
[71] COMCAST CABLE COMMUNICATIONS, LLC, US  
[22] 2017-03-31  
[41] 2017-10-01  
[62] 2,962,974  
[30] US (15/088,749) 2016-04-01

[21] **3,219,798**  
[13] A1

[25] EN  
[54] **REVERSING MECHANISM FOR A POWER TOOL**  
[54] **MECANISME DE RENVERSEMENT POUR OUTIL ELECTRIQUE**  
[72] BOTHMANN, RICHARD, US  
[72] KING, BRIAN, US  
[72] KINSLEY, RAY, US  
[71] SNAP-ON INCORPORATED, US  
[22] 2021-06-17  
[41] 2021-12-22  
[62] 3,122,668  
[30] US (16/908,105) 2020-06-22

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[21] **3,219,833**  
[13] A1

[25] EN  
[54] **APPARATUS AND METHODS FOR PACKAGING**  
[54]  
[72] FERRIS, KEVIN, GB  
[72] BORTOS, DANIEL, DE  
[72] MUMAN, LEESHA, GB  
[72] THISTLETON, BEN, GB  
[72] LOXLEY, PHILL, GB  
[72] BOSWORTH, COLIN, GB  
[71] INTERCONTINENTAL GREAT BRANDS LLC, US  
[22] 2020-02-04  
[41] 2020-09-03  
[62] 3,129,264  
[30] GB (GB1902605.3) 2019-02-27

[21] **3,219,866**  
[13] A1

[25] EN  
[54] **METHOD AND DEVICE FOR PROCESSING VIDEO SIGNAL BY USING INTER PREDICTION**  
[54] **PROCEDE ET DISPOSITIF DE TRAITEMENT DE SIGNAL VIDEO A L'AIDE D'UNE INTER-PREDICTION**  
[72] PALURI, SEETHAL, KR  
[72] KIM, SEUNGHWAN, KR  
[71] LG ELECTRONICS INC., KR  
[22] 2020-01-02  
[41] 2020-07-09  
[62] 3,125,551  
[30] US (62/787,384) 2019-01-02

[21] **3,219,887**  
[13] A1

[25] EN  
[54] **COVERAGE ENHANCEMENT AND NORMAL MODES SWITCHING RELATED OPTIMIZATION**  
[54] **AMELIORATION DE LA COUVERTURE ET OPTIMISATION EN RAPPORT AVEC LA COMMUTATION DE MODES NORMAUX**  
[72] BHATTAD, KAPIL, US  
[72] XU, HAO, US  
[72] RICO ALVARINO, ALBERTO, US  
[72] GAAL, PETER, US  
[72] KITAZOE, MASATO, US  
[72] SAMBHWANI, SHARAD, US  
[71] QUALCOMM INCORPORATED, US  
[22] 2017-08-08  
[41] 2018-04-12  
[62] 3,034,818  
[30] IN (201641033860) 2016-10-04  
[30] US (15/670,697) 2017-08-07

[21] **3,219,852**  
[13] A1

[25] EN  
[54] **GRABBER**  
[54] **PREHENSEUR**  
[72] PRICE, THOMAS L., US  
[72] DOLL, ROBERT H., US  
[72] NEPLOTRNIK, EUGENE, US  
[72] RICE, DAVID, US  
[71] THE HEIL CO., US  
[22] 2013-04-15  
[41] 2013-10-30  
[62] 3,100,530  
[30] US (61/640,129) 2012-04-30  
[30] US (13/799,423) 2013-03-13

[21] **3,219,881**  
[13] A1

[25] EN  
[54] **INTERFACE COMPRISING A ROLLING NASAL BRIDGE PORTION**  
[54] **INTERFACE COMPRENANT UNE PARTIE DE PONT NASAL ROULANTE**  
[72] OLSEN, GREGORY JAMES, NZ  
[72] BEARNE, PETER DAVID ALEXANDER, NZ  
[72] EVANS, LEON EDWARD, NZ  
[72] STEPHENSON, MATTHEW ROGER, NZ  
[72] PRENTICE, CRAIG ROBERT, NZ  
[72] IP, BERNARD TSZ LUN, NZ  
[72] SPEAR, TONY WILLIAM, NZ  
[72] MCLAREN, MARK ARVIND, NZ  
[72] PATEL, ROHEET, NZ  
[72] HOWARTH, BRAD MICHAEL, NZ  
[72] HARWOOD, JONATHAN DAVID, NZ  
[71] FISHER & PAYKEL HEALTHCARE LIMITED, NZ

[21] **3,219,973**  
[13] A1

[51] **Int.Cl. A61F 2/95 (2013.01) A61F 2/24 (2006.01)**  
[25] EN  
[54] **PROSTHETIC HEART VALVE DELIVERY APPARATUS**  
[54] **APPAREIL DE POSE DE VALVULE CARDIAQUE PROTHETIQUE**  
[72] BAKIS, GEORGE, US  
[72] NGUYEN, THANH V., US  
[72] PHAN, LY T., US  
[72] METCHIK, ASHER, US  
[71] EDWARDS LIFESCIENCES CORPORATION, US  
[22] 2014-05-20  
[41] 2014-11-27  
[62] 3,134,578  
[30] US (61/825,476) 2013-05-20

[21] **3,219,855**  
[13] A1

[25] EN  
[54] **WORK TABLE FENCE ASSEMBLY AND SLED THEREFOR**  
[54] **DISPOSITIF DE TABLE DE TRAVAIL EN BORDURE DE CLOTURE ET TRINEAU ASSOCIE**  
[72] SMITH, DARRIN E., CA  
[71] JESSEM TOOL CORPORATION, CA  
[22] 2017-12-11  
[41] 2018-06-29  
[62] 2,988,350  
[30] US (15/393,948) 2016-12-29

[22] 2012-04-13  
[41] 2012-10-18  
[62] 3,049,400  
[30] US (61/476,188) 2011-04-15  
[30] US (61/504,295) 2011-07-04  
[30] US (61/553,067) 2011-10-28

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AL-HUWAIDER, MUSTAFA A.	3,219,780	ANDERSON, ERIN DANIELLE	3,219,925	ASAHI KASEI KABUSHIKI	
ALACS, LLC	3,219,741	ANDERSON, GEORGE	3,219,775	KAISHA	3,219,649
ALCYONE THERAPEUTICS,		ANDERSON, MATTHEW	3,220,154	ASH, JON	3,219,764
INC.	3,219,514	ANDERSON, NICHOLAS PAUL	3,219,892	ASHRAF, MUHAMMAD	
ALDERBORN, GORAN	3,219,499	ANDRADE, MARCELO	3,219,666	FAHIM ASHRAF	3,219,726
ALDERBORN, GORAN	3,219,508	ANDRADE, MARCELO	3,219,945	ASIC MEDICAL BUHA LTD	3,219,894
ALEMANA, GILBERT	3,219,451	ANDRADE, MARCELO	3,219,961	ASIERIS PHARMACEUTICALS	
ALERIGI, DAMIAN PABLO		ANDRADE, MARCELO	3,219,964	(SHANGHAI) CO., LTD.	3,219,273
SAN ROMAN	3,220,011	ANDRADE, MARCELO	3,219,995	ASTELLAS GENE THERAPIES,	
ALERIGI, DAMIAN PABLO		ANDRADE, MARCELO	3,219,997	INC.	3,219,834
SAN ROMAN	3,220,163	ANDREWS, ALBERT		ASTLE, THOMAS BLAIR	3,219,683
ALESCH, MATTHEW	3,219,291	BALLARD	3,219,373	ASTRAZENECA AB	3,219,401
ALEVIZOS, ILIAS	3,219,742	ANDREWS, CARTER RAY	3,219,568	ASTRAZENECA AB	3,219,960
ALEXEEV, ANDREI	3,219,555	ANDREWS, CHRISTOPHER		ASTREA UK SERVICES	
ALFANO, ANDREA	3,219,554	MICHAEL	3,219,946	LIMITED	3,219,717



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ATGC CO., LTD.	3,219,818	ANASTACIA	3,220,044	BERGER, ARI	3,219,937
AUBAY, ERIC	3,219,591	BASF AGRICULTURAL		BERGH GUSTAFSSON,	
AUBE, JEFFREY	3,219,507	SOLUTIONS SEED US LLC	3,217,971	NICLAS	3,219,849
AUBEE, NORMAN	3,219,598	BASF AGRO TRADEMARKS		BERGKVIST, MAGNUS	3,219,861
AUSTAD, BRIAN C.	3,219,525	GMBH	3,219,472	BERGTEAMET AB	3,219,861
AUSTENFELD, SEBASTIAN	3,219,610	BASF COATINGS GMBH	3,219,510	BERKSHIRE GREY	
AUTKAR, SANTOSH		BASF SE	3,219,311	OPERATING COMPANY,	
SHRIDHAR	3,219,256	BASF SE	3,219,486	INC.	3,219,371
AVERMATE, STEVEN	3,219,948	BASF SE	3,219,670	BERKSHIRE GREY	
AVVARU, NAGA SUHASINI	3,219,609	BASF SE	3,219,689	OPERATING COMPANY,	
AXELROD, GLEN S.	3,220,162	BASTA, SAM	3,219,418	INC.	3,219,682
B. DE LANGE HOLDING B.V.	3,219,494	BATARSEH, SAMEEH ISSA	3,220,011	BERKSHIRE GREY	
BABU, YARLAGADDA S.	3,219,966	BATARSEH, SAMEEH ISSA	3,220,163	OPERATING COMPANY,	
BACHTTELL, NATHAN	3,219,834	BATES, FERDIA	3,219,437	INC.	3,219,956
BACK, LUCAS	3,219,344	BATTELLE MEMORIAL		BERNDORF BAND GMBH	3,219,446
BADEN, CAMILLA KNUDSEN	3,219,577	INSTITUTE	3,219,807	BERNSTEIN, JAMES S.	3,219,547
BAE, DONG HUN	3,219,607	BAXTER, LARRY L.	3,219,347	BERTA, JAMES ALBERT	3,219,441
BAE, JU-HYEON	3,219,821	BAYER		BERTOLO, TIZIANO	3,219,963
BAHLENBERG, PETER	3,219,889	AKTIENGESELLSCHAFT	3,219,384	BETTCHER, ROBERT	3,219,939
BAJPAI, AVINASH	3,219,422	BAZYD'O-GUZENDA,		BEUCKELAERS, ERIK PAUL	
BAKER HUGHES OILFIELD		KATARZYNA	3,219,965	FLOR	3,219,922
OPERATIONS LLC	3,219,497	BAZYD'O-GUZENDA,		BEUTIN, BRUNO ALBERT	3,219,637
BAKER, RHODES B.	3,219,381	KATARZYNA	3,219,971	BGC PARTNERS, L.P.	3,219,900
BALADI, MICHELLE GILBERT	3,219,829	BEACH, ALLISON	3,219,624	BHARAJ, BHUPINDER	3,219,511
BALASUBRAMANIAN,		BEALE, GARY	3,219,754	BHARATHA, MALLESH	3,219,597
SIVAKUMAR	3,219,864	BEAM THERAPEUTICS INC.	3,219,628	BHOGAL, PERVINDER SINGH	3,219,993
BALASUBRAMANIAN,		BEAM THERAPEUTICS INC.	3,219,767	BHUJADE, PARAS RAYBHAN	3,219,256
SRIRAM	3,220,015	BEATTIE, ADAM T.	3,219,328	BIANCARDI, ROBERTO	3,219,690
BALL, ALEXANDER	3,219,327	BECCARI, ANDREA ROSARIO	3,219,586	BIANCHI, MARZIA	3,219,808
BALOGLU, ERKAN	3,219,525	BECK, SABINE	3,219,360	BIASINI, EMILIANO	3,219,463
BALUTA, ALEXANDER		BECKER, AMY M.	3,219,932	BIEDERMAN, CHRISTOPHER	
WILLIAM	3,219,683	BECKER, DAVID	3,219,981	JAMES	3,219,906
BAMBINO PREZIOSO		BECKER, MATTHEW L.	3,219,503	BIEDERMAN, CHRISTOPHER	
SWITZERLAND AG	3,219,308	BECKER, YANN	3,219,860	JAMES	3,219,909
BAO, TONG	3,219,879	BECONI, MARIA GABRIELA	3,220,137	BIGOT, AURELIEN	3,219,744
BAPTISTA, CHARLES	3,219,371	BECTON DICKINSON FRANCE	3,219,523	BIKTRIX ENTERPRISES INC.	3,219,918
BAR, HANS	3,219,862	BECTON DICKINSON FRANCE	3,219,914	BIOCRYST	
BAR, HANS	3,219,870	BECTON, DICKINSON AND		PHARMACEUTICALS,	
BARAS, ARIS	3,219,620	COMPANY	3,219,307	INC.	3,219,966
BARBA, FRANCESCO	3,219,625	BECTON, DICKINSON AND		BIOHAVEN THERAPEUTICS	
BARD ACCESS SYSTEMS,		COMPANY	3,219,523	LTD.	3,219,475
INC.	3,219,428	BECTON, DICKINSON AND		BIOHAVEN THERAPEUTICS	
INC.	3,219,429	COMPANY	3,219,640	LTD.	3,219,517
BARDIANI, ITALO	3,219,625	BECTON, DICKINSON AND		BIOHAVEN THERAPEUTICS	
BARILLA G. E R. FRATELLI		COMPANY	3,219,648	LTD.	3,219,550
S.P.A.	3,219,625	BECTON, DICKINSON AND		BIONTECH SE	3,219,437
BARKER, SIMON WILLIAM	3,219,626	COMPANY	3,219,892	BIRNBOIM, MICHAEL	3,220,000
BARKER, TAYLOR	3,219,383	BEDARD, NORMAN	3,219,290	BJERKE, NATHAN R.	3,219,492
BARLAA B.V.	3,219,560	BEG, CHRISTOPHER	3,173,366	BLAIR, EDWARD J	3,219,306
BARLAGE, DOUGLAS	3,219,797	BEG, CHRISTOPHER	3,219,662	BLANCHARD, CURTIS H.	3,219,648
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BARRAGAN, ALFREDO OMAR	3,219,491	GMBH	3,219,672	BLASCO, MARIA	3,219,795
BARRECA, MARIA LETIZIA	3,219,463	BEIJING ROBOROCK		BLEA, DAVID	3,219,916
BARRESI, FRANCESCO	3,219,302	TECHNOLOGY CO., LTD.	3,219,505	BLOCH, NICOLIN	3,171,061
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BARROS LORENZO, JOSE	3,219,945	BELL, DOUGLAS	3,219,501	ENTERPRISES, INC.	3,219,618
BARROS LORENZO, JOSE	3,219,961	BELL-CARES, AARON	3,219,307	BMIC LLC	3,219,476
BARROS LORENZO, JOSE	3,219,964	BELLEFLAMME, MAURICE	3,219,893	BOARD OF REGENTS, THE	
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BARROS LORENZO, JOSE	3,219,997	BENTRIDI, AHMED	3,219,718	SYSTEM	3,219,976
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		BENTZIEN, JORG MARTIN	3,219,506	BOHNUUD, TANGGIS	3,219,767
		BERENDS, DAVID	3,219,510	BOILARD, ERIC	3,219,860

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BOLING, CARL LANCE	3,219,353	(INVESTMENTS) LIMITED	CARIDIS, ANDREW	
BOLYMEDIA HOLDINGS CO.		BRITAIN, HARRY	ANTHONY	3,173,086
LTD.	3,220,123	BROENG, JENS	CARLESSO, FRANCO	3,219,255
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BONAFOUS, LAURENT	3,220,017	BRONSHTEIN, TOMER	ROMERA	3,219,624
BONFANTI, MAURO	3,219,292	BROWER, JOHN E.	CARMOT THERAPEUTICS	
BONNAERENS, WIETSE	3,219,558	BROWN, ANDREW	INC.	3,220,005
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BOREALIS AG	3,219,389	BRUMLEY, EDWARD	CARRIER, ODILE	3,219,945
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BOSMA, SEBASTIAAN		BUDA, PAWE?	SCHULTZ	3,219,936
MENNO	3,219,847	BUEREN RONCERO, JUAN	CARVER, KELLY	3,220,020
BOSTON SCIENTIFIC SCIMED,		ANTONIO	CASANA LORENTE,	
INC.	3,219,438	BULLFROG INTERNATIONAL,	ESTEFANIA	3,219,795
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INC.	3,219,614	BUONADONNA, PASQUALE	CATERPILLAR INC.	3,219,327
BOSTON SCIENTIFIC SCIMED,		BURBERRY, RICHARD S.	CATERPILLAR INC.	3,219,335
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BOULANOV, DMITRI	3,219,997	BURTON, STEVE	CECCARANI, FABIO	3,219,368
BOUNDLESS BIO, INC.	3,219,348	BUTLER, TIMOTHY JOHN	CELESTA COMPANY LLC	3,220,080
BOURNE, PHILLIP O.	3,219,483	BYEON, YEJI	CELESTA COMPANY LLC	3,220,084
BOUSQUET, CHRISTOPHE	3,219,915	BYLINSKII, ALEXEI	CELON PHARMA S.A.	3,219,965
BOUSTINGORRY, PASCAL	3,220,017	C-TEC CONSTELLUM	CELON PHARMA S.A.	3,219,971
BOYD, STEVEN A.	3,219,907	TECHNOLOGY CENTER	CELYAD ONCOLOGY S.A.	3,219,755
BOYLES, NICHOLAS A.	3,219,925	C. R. BARD, INC.	CENTRO DE	
BRACCO, GIOVANNI	3,219,292	C.M.T. UTENSILI S.P.A.	INVESTIGACIONES	
BRAMS, MATTHEW	3,219,762	C.R. BARD, INC.	ENERGETICAS,	
BRANDON, ALISON	3,219,327	CABALLERO, ANTONIO	MEDIOAMBIENTALES Y	
BRASHER, MATTHEW		CABALLERO, ANTONIO	TECNOLOGICAS, O.A.,	
GORDON	3,219,454	CABALLERO, ANTONIO	M.P. (CIEMAT)	3,219,359
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TRAVELWARE, LLC	3,220,051	CANISUS UNIVERSITY	CHEMICALS, INC.	3,219,347
BRIGHT MINDS BIOSCIENCES		CAO, CHUNLAI	CHART ENERGY &	
INC.	3,219,940	CAO, WEICOU	CHEMICALS, INC.	3,219,646
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CHEN, XIAOHONG	3,219,925	GRZEGORZ	3,220,006	TECHNOLOGY	
CHEN, XIN	3,219,672	CHUGAL SEIYAKU		(DONGGUAN) CO., LTD.	3,219,929
CHEN, YINGZHONG	3,219,308	KABUSHIKI KAISHA	3,219,415	CREATIVE MOTOR	
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CHEN, YONG MING	3,219,486	KAZIMIERZ	3,219,275	(DONGGUAN) CO., LTD.	3,219,931
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MEDICAL &		COHEN, BENJAMIN	3,219,371	PHARMACEUTICAL CO.,	
PHARMACEUTICAL CO.,		COLDKEEPERS, LLC	3,219,841	LTD.	3,219,572
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CHINNALAGU, ANANDAN	3,211,087	COMMERCE STE MARIE INC.	3,219,290	SYSTEMS LTD.	3,219,951
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ARROWHEAD PHARMACEUTICALS, INC.	3,219,720	CHEN, AMY SHAW-RU	3,219,665	FINDLAY, MATTHEW	3,219,477
AUSTIN, PETER	3,219,704	CHEN, AMY SHAW-RU	3,219,680	FINDLAY, MATTHEW	3,219,493
AUSTRALIAN PLANT PROTEINS PTY LTD	3,219,007	CHEN, AMY SHAW-RU	3,219,684	FISCHER, CODY	3,219,477
AUTOMATED PET CARE PRODUCTS, LLC	3,218,976	CHEN, CHENG-YAO	3,219,413	FISCHER, CODY	3,219,493
AYAL-HERSHKOVITZ, MATY	3,219,776	CHEN, WEI	3,219,665	FISHER & PAYKEL HEALTHCARE LIMITED	3,219,881
BAKER, RHODES B.	3,219,439	CHEN, WEI	3,219,680	FLETCHER, PAUL	3,219,704
BAKIS, GEORGE	3,219,973	CHEN, WEI	3,219,684	FRAUNHOFER- GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	3,219,540
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BAYER, STEFAN	3,219,540	CONNAUGHTON, EOIN PATRICK	3,219,286	GHIDO, FLORIN	3,219,566
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BECTON DICKINSON FRANCE	3,218,979	DAI, MINGZENG	3,218,722	GOEPFRICH, JAMES L.	3,219,601
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BESSON, NICOLAS	3,218,979	DIELS, TOON	3,219,286	GOOGLE LLC	3,219,315
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BOTHMANN, RICHARD	3,219,798	DUBINSKY, MILAN	3,219,493		
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BOUSTANY, LEILA MARIE	3,219,680	EARLEY, WILLIAM	3,219,374		
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STROP, PAVEL	3,219,680	XU, HAO	3,219,887
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