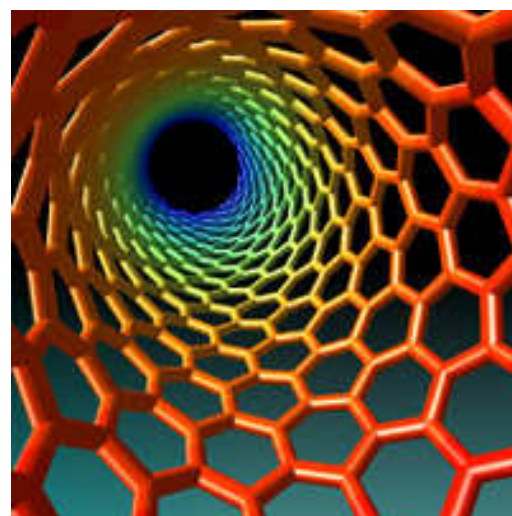


# Pedidos de Patente sobre Tecnologias de Conversão e Armazenamento Eletroquímico de Energia usando Nanotecnologia – Nº 2



Pedidos publicados no  
2º semestre de 2011

## INSTITUTO NACIONAL DA PROPRIEDADE INDUSTRIAL - INPI

Presidente: Jorge de Paula Costa Ávila

Vice-Presidente: Ademir Tardelli

## DIRETORIA DE COOPERAÇÃO PARA O DESENVOLVIMENTO DICOD

Diretor: Denise Nogueira Gregory

## CENTRO DE DISSEMINAÇÃO DA INFORMAÇÃO TECNOLÓGICA CEDIN

Chefe: Raul Suster

## COORDENAÇÃO DE ESTUDOS E PROGRAMAS - CEPRO

Chefe: Luci Mary Gonzalez Gullo

Autora:

Sabrina da Silva Santos Gandara

## SUMÁRIO

1 - INTRODUÇÃO .....	4
1.1 - ALERTA TECNOLÓGICO .....	4
1.2- PEDIDOS DE PATENTE SOBRE TECNOLOGIAS DE CONVERSÃO E ARMAZENAMENTO ELETROQUÍMICO DE ENERGIA USANDO NANOTECNOLOGIA.....	6
2- RESULTADOS.....	8
ANEXO I - Códigos dos Principais Países .....	93
ANEXO II - Pedidos de patente sem nome do depositante indexado .....	94

## Lista dos Gráficos

Gráfico 1: Número de pedidos de patente publicados no mundo no 2º semestre de 2011 x País de prioridade.....	9
Gráfico 2: Número de pedidos de patente publicados no mundo no 2º semestre de 2011 x Classificação Internacional de Patentes (CIP).....	10

## Lista das Tabelas

Tabela 1: Relação dos principais depositantes e do nº de pedidos de patente publicados no 2º semestre de 2011 .....	11
Tabela 2: Dados bibliográficos dos pedidos de patente publicados no mundo no 2º semestre de 2011 (ordenados pelo nome do primeiro depositante) .....	12

# 1 - INTRODUÇÃO

## 1.1 - ALERTA TECNOLÓGICO

O Instituto Nacional da Propriedade Industrial (INPI) é uma Autarquia Federal, vinculada ao Ministério do Desenvolvimento, Indústria e Comércio Exterior (MDIC), responsável pela concessão de patentes, registros de desenhos industriais, registro de marcas, averbação de contratos de transferência de tecnologia e de franquia, registro de programas de computador, indicações geográficas e topografias de circuito integrado.

O Centro de Disseminação da Informação Tecnológica (CEDIN), subordinado à Diretoria de Cooperação para o Desenvolvimento (DICOD), mantém um acervo com a descrição dos pedidos de patente e de registros de desenho industrial. Uma de suas atribuições é divulgar e disseminar a utilização destas informações bibliográficas e técnicas. Para tanto, o CEDIN dispõe da Coordenação de Estudos e Programas – CEPRO, cuja incumbência é elaborar publicações fundamentadas, essencialmente, em informações extraídas de documentos de patente.

A patente é uma importante fonte formal de informação, por meio da qual pode-se ter acesso a detalhes técnicos de invenções que, em alguns casos, não estão descritos em outros meios de divulgação (livros, artigos técnicos etc).

O objetivo desta publicação semestral é o de alertar sobre os principais depositantes de patente em determinado setor e período de tempo, os países onde o primeiro depósito foi solicitado (país de prioridade), as áreas tecnológicas mais solicitadas e de divulgar os títulos dos pedidos de patente publicados mundialmente em determinado período. Desta forma, busca-se contribuir para a atualização periódica do público alvo deste Alerta Tecnológico.

Mais detalhes sobre cada pedido de patente como resumo, nome(s) do(s) inventor(es), cópia do documento completo etc. podem ser obtidos nas seguintes bases de patente disponíveis gratuitamente na internet:

1. Base Brasileira de Pedidos de Patente<sup>1</sup>: <http://www.inpi.gov.br>
2. Base do Escritório Europeu de Patentes<sup>2</sup>:  
<http://worldwide.espacenet.com>
3. Base do Escritório Americano de Patentes<sup>3</sup>: <http://www.uspto.gov>

Caso haja interesse em se conhecer o(s) depósito(s) de patente no Brasil, correspondente(s) aos pedidos de patente estrangeiros (família do pedido de patente<sup>4</sup>) listados na Tabela nº 2, sugere-se uma busca de família dos pedidos de interesse. Neste caso, o CEDIN informará os procedimentos a serem seguidos. Abaixo, seguem endereço e formas de contatar o CEDIN.

### INPI/DICOD/CEDIN:

Instituto Nacional da Propriedade Industrial – INPI

Diretoria de Cooperação para o Desenvolvimento – DICOD

Centro de Disseminação da Informação Tecnológica – CEDIN

Rua Mayrink Veiga, 9 / 20º andar, Centro, Rio de Janeiro, RJ, CEP 20090-910

Tel. (21) 3037 - 3101 , Fax. (21) 3037 - 3354

e-mail: [cedin@inpi.gov.br](mailto:cedin@inpi.gov.br)

As cópias integrais dos pedidos de patente de interesse podem ser solicitadas por meio do endereço [copdocpat@inpi.gov.br](mailto:copdocpat@inpi.gov.br) ou por correio postal ao endereço anteriormente mencionado.

---

<sup>1</sup> Esta base contém somente pedidos de patente depositados e publicados no Brasil a partir de 1982.

<sup>2</sup> Contém pedidos de patente depositados e publicados em mais de 70 países.

<sup>3</sup> Contém somente pedidos depositados e publicados nos Estados Unidos.

<sup>4</sup> Uma família de patentes é a coleção de documentos de patente relacionados à mesma invenção ou a invenções correlacionadas, publicados em diferentes países. Cada documento de patente da família baseia-se, normalmente, nos dados do primeiro pedido depositado no país da prioridade. Existem diferentes estruturas de famílias de patente. Para este Alerta, o termo família de patentes refere-se ao conceito de “família simples”, na qual todos os documentos de patente têm em comum o número e a data da prioridade unionista (WIPO, 2008).

## **1.2- PEDIDOS DE PATENTE SOBRE TECNOLOGIAS DE CONVERSÃO E ARMAZENAMENTO ELETROQUÍMICO DE ENERGIA USANDO NANOTECNOLOGIA**

As tecnologias de conversão e armazenamento eletroquímico de energia que serão objetos de análise neste Alerta englobam as pilhas, as baterias, as células a combustível e os supercapacitores que utilizam a nanotecnologia em sua concepção.

A nanotecnologia é uma área do conhecimento multi-disciplinar e em franco desenvolvimento, fato corroborado pelo crescente número de pedidos de patente publicados no mundo conforme pode ser visto na série de Alertas Tecnológicos sobre Nanotecnologia já publicados pelo INPI.

O objetivo desta publicação é fornecer ao público interessado informações sobre uma aplicação específica da nanotecnologia, em função do elevado número de documentos publicados sobre a Nanotecnologia em geral. Assim, o INPI, por meio do CEDIN, vem prestar sua colaboração com a divulgação das informações contidas em documentos de patentes publicados sobre este assunto e, conseqüentemente, facilitar ao público interessado o acesso a tais informações.

A partir do presente trabalho serão divulgados, semestralmente, os pedidos de patente publicados no mundo sobre tecnologias de conversão e armazenamento eletroquímico de energia usando nanotecnologia.

De forma bem simples, define-se pilha como sendo um dispositivo que converte a energia química armazenada em seu interior em energia elétrica. Bateria é um conjunto de pilhas associadas em série ou em paralelo, de forma a fornecer a tensão ou a corrente desejada a carga elétrica conectada a mesma. Pilha e bateria são aqui utilizados indistintamente para descrever sistemas eletroquímicos fechados que armazenam energia. Células a combustível são dispositivos eletroquímicos que produzem energia elétrica a partir da reação química entre o hidrogênio (puro ou um gás rico em hidrogênio) e um oxidante (oxigênio do ar). Os produtos das células a combustível são, além da energia elétrica gerada, energia térmica (calor

gerado pela reação) e água resultante da combinação entre o hidrogênio e o oxigênio. Elas diferem das baterias pois não há componente acumulador de energia em seu interior, ou seja, a energia elétrica é produzida enquanto for mantido o fluxo dos reagentes (hidrogênio e oxigênio) que são introduzidos na célula pelo exterior. Os supercapacitores ou capacitores eletroquímicos destiguem-se dos demais capacitores pela sua grande capacidade de armazenar energia.

Para este levantamento, foram selecionados os pedidos de patente que contem no título ou no resumo palavras-chaves relacionadas a nanotecnologia (fuleren+ or nano+ or cnt or nems or graphen+). Além das palavras-chave, também foi utilizada a classe B82 (Nanotecnologia) da Classificação Internacional de Patentes.

Para obter um subconjunto de documentos referentes as tecnologias de conversão e armazenamento eletroquímico de energia foi definido um campo de busca com base na Classificação Internacional de Patentes: H01M (Processos ou meios, por ex., baterias, para a conversão direta da energia química em energia elétrica). Além disso, na recuperação dos documentos relacionados aos supercapacitores, foram utilizados nos títulos e resumos palavras-chave como supercapacitor, ultracapacitor, megacapacitor e capacitor de camada dupla, além de buscar pelas classificações: H01G9/016 (Terminais especialmente adaptados para capacitores de camada dupla), H01G9/038 (Eletrólitos especialmente adaptados para capacitores de camada dupla), H01G9/058 (Eletrodos especialmente adaptados para capacitores de camada dupla) e H01G9/155 (Capacitores de camada dupla).

## 2- RESULTADOS

No semestre pesquisado foram selecionados 563 documentos de patente que abordam as tecnologias de conversão e armazenamento eletroquímico de energia usando nanotecnologia.

De acordo com o Gráfico nº 1, pode-se identificar os países<sup>5</sup> de prioridade (país ou organização onde foi realizado o primeiro depósito do pedido de patente) e observar a ocorrência de documentos em cada país. Foram considerados os países de prioridade que constam em 6 ou mais pedidos de patente. Este gráfico revela que os principais países de prioridade<sup>6</sup> são: China, com uma liderança bastante expressiva neste segmento, seguida pelos Estados Unidos da América, Coréia e Japão.

A partir dos resultados nele apresentados pode-se inferir que as tecnologias estão sendo desenvolvidas, principalmente, nos países indicados. Isto provavelmente é verdadeiro porque, geralmente, os depositantes solicitam a prioridade a partir de seus países de origem. Alternativamente, isto poderia indicar o interesse do primeiro depósito nos mercados destes países.

Existe uma grande concentração de pedidos com prioridade chinesa, o que reflete uma supremacia da pesquisa em mãos de empresas/instituições daquele país ou a escolha de primeiro depósito naquele país.

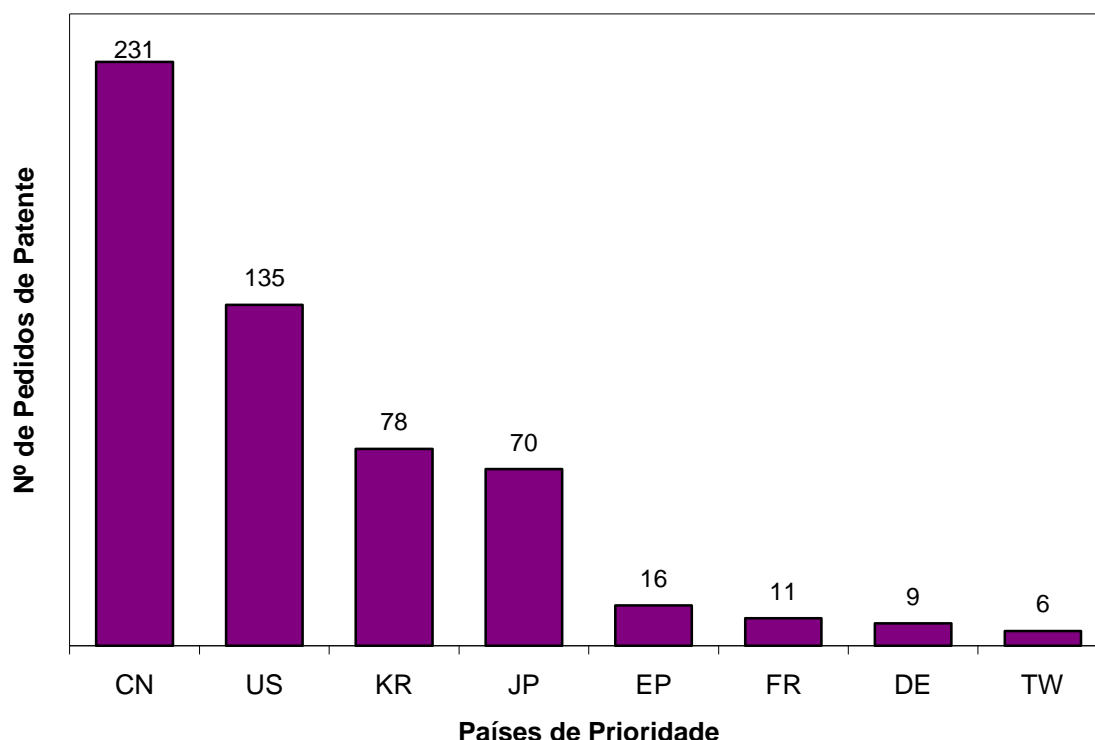
---

<sup>5</sup> A lista com os códigos dos países está disponível no Anexo I.

<sup>6</sup> Conforme estabelecido pela Convenção de Paris (CUP) em seu Art. 4º, o primeiro pedido de patente depositado em um dos países membros da Convenção serve de base para depósitos subsequentes relacionados à mesma matéria, efetuados pelo mesmo depositante ou por seus sucessores legais. Tem-se, assim, o **Direito de Prioridade**. O prazo para exercer tal direito é de 12 meses, para invenção e modelo de utilidade. Ver art. 16, da Lei da Propriedade Industrial (LPI), nº 9.279/96 – disponível em [www.inpi.gov.br](http://www.inpi.gov.br).



**Gráfico 1:** Número de pedidos de patente publicados no mundo no 2º semestre de 2011 x País de prioridade



Fonte: INPI

O Gráfico nº 2 permite identificar as principais tecnologias relacionadas ao tema, descritas nos pedidos de patente publicados no período. Para este levantamento foram computadas somente as classificações presentes em mais de 35 documentos.

Pode-se verificar a seguir a descrição dos grupos principais encontrados:

H01M4 – Eletrodos.

H01G9 – Capacitores eletrolíticos, retificadores, detectores, dispositivos de chaveamento ou dispositivos sensíveis à luz ou dispositivos sensíveis à temperatura; Processos para sua fabricação.

H01M10 – Células secundárias; Sua fabricação.

H01M8 – Células a combustível; Sua fabricação.

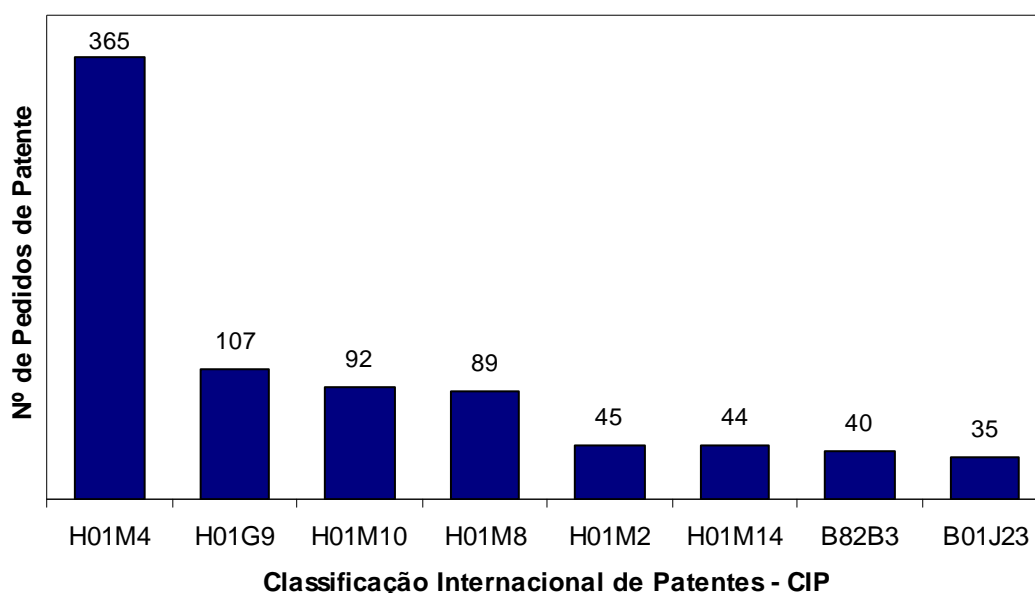
H01M2 – Detalhes estruturais ou processos de fabricação das partes não ativas.

H01M14 – Geradores eletroquímicos de corrente ou de tensão não incluídos nos grupos H01M 6/00-H01M 12/00 ; Fabricação dos mesmos.

B82B3 – Fabricação ou tratamento de nano estruturas formadas por manipulação individual de átomos, moléculas, ou grupos limitados de átomos ou moléculas como unidades discretas.

B01J23 – Catalisadores compreendendo metais ou óxidos ou hidróxidos de metais não incluídos no grupo B01J 21/00.

**Gráfico 2:** Número de pedidos de patente publicados no mundo no 2º semestre de 2011 x Classificação Internacional de Patentes (CIP)



Fonte: INPI

Na Tabela nº 1, a seguir, são identificados os depositantes com maior número de pedidos de patente publicados no 2º semestre de 2011, sendo relacionados os que aparecem em 5 ou mais pedidos. A primeira coluna contém os nomes dos depositantes e a segunda, o total de documentos

recuperados no período para cada um. Algumas das empresas identificadas entre os depositantes podem fazer parte de um mesmo grupo. Entretanto, para este alerta, os nomes dos depositantes foram apresentados da mesma forma como foram recuperados.

A partir desta tabela observa-se que das 24 empresas com maior número de pedidos depositados a maioria é chinesa. Este dado encontra-se compatível com o resultado mostrado no Gráfico nº 1, onde se encontra registrado que grande parte dos depósitos foram efetuados prioritariamente na China.

Foram encontrados 2 documentos de patente depositados no Brasil e publicados no período considerado. Ambos os depósitos foram efetuados por americanos.

**Tabela 1:** Relação dos principais depositantes e do nº de pedidos de patente publicados no 2º semestre de 2011

<b>Nome do Depositante</b>	<b>Total de Documentos</b>
UNIV ZHEJIANG [CN]	16
KOLON FASHION MATERIAL INC [KR]	10
UNIV BEIJING CHEMICAL [CN]	9
UNIV TSINGHUA [CN]	8
SAMSUNG SDI CO LTD [KR]	8
UNIV SHANGHAI [CN]	7
TOYOTA MOTOR CO LTD [JP]	7
TOYOTA MOTOR CORP [JP]	6
COMMISSARIAT ENERGIE ATOMIQUE [FR]	6
UNIV NANJING NORMAL [CN]	6
SAMSUNG ELECTRONICS CO LTD [KR]	6
APPLIED MATERIALS INC [US]	5
UNIV CENTRAL SOUTH [CN]	5
UNIV NANJING [CN]	5
KOREA INST SCI & TECH [KR]	5
UNIV FUDAN [CN]	5
UNIV CALIFORNIA [US]	5
UTC POWER CORP [US]	5
UNIV YONSEI IACF [KR]	5
BYD CO LTD [CN]	5
NANOSYS INC [US]	5

SONY CORP [JP]	5
SHAO MINHUA [US]	5
SAMHWA CAPACITOR CO LTD [KR]	5

Fonte: INPI

A Tabela nº 2, a seguir, apresenta o número do pedido, com sua(s) prioridade(s), o(s) nome(s) depositante(s), a classificação internacional atribuída ao documento e seu título. Os pedidos de patente cujos nomes dos depositantes não foram indexados na base consultada não foram incluídos nesta tabela e podem ser consultados no Anexo II.

**Tabela 2:** Dados bibliográficos dos pedidos de patente publicados no mundo no 2º semestre de 2011 (ordenados pelo nome do primeiro depositante)

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
JP4837822B2 B2 20111214	US19970948910 19971010; WO1998US08595 19980429		B82B1/00; H01M4/86; B01J23/42; B01J23/46; B01J35/02; B01J35/06; B01J35/10; C23C14/20; C23C14/34; C23C28/02; C23C28/04; H01M4/90; H01M4/92; H01M8/10	CATALYST FOR MEMBRANE ELECTRODE ASSEMBLY AND METHOD OF MAKING
JP2011523902 A 20110825	US20080141082P 20081229; US20080044573P 20080414; WO2009US40552 20090414		B82B1/00; B82B3/00; H01L21/306; H01L29/06; H01M4/38	PROCESS FOR FABRICATING NANOWIRE ARRAYS
JP2011526655 A 20111013	US20080074784P 20080623; WO2009US48213 20090623		C25D21/12; B82Y30/00; B82Y40/00; C25D5/18; H01M4/86; H01M4/88	UNDERPOTENTIAL DEPOSITION-MEDIATED LAYER-BY-LAYER GROWTH OF THIN FILMS
WO2011139705 A1 20111110	US20100328064P 20100426	3M INNOVATIVE PROPERTIES CO [US]; DEBE MARK K [US]; SMITHSON ROBERT L W [US]; STUDINER CHARLES J IV [US]; HENDRICKS SUSAN M [US]; KURKOWSKI	H01M4/92; B01J37/34; H01M4/86; H01M4/88	ANNEALED NANOSTRUCTURED THIN FILM CATALYST
WO2011139693 A2 20111110	US20100328049P 20100426	3M INNOVATIVE PROPERTIES CO [US]; DEBE MARK K [US]; VERNSTROM GEORGE D [US]; STEINBACH ANDREW J L [US]	H01M4/92	PLATINUM NICKEL CATALYST ALLOY
WO2011139678 A1 20111110	US20100328058P 20100426	3M INNOVATIVE PROPERTIES CO [US]; STEINBACH ANDREW J L [US]; DEBE MARK K [US]; HAUG ANDREW T [US]	H01M8/02; H01M8/04	FUEL CELL WATER MANAGEMENT VIA REDUCED ANODE REACTANT PRESSURE

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011149732 A2 20111201	US20100348086P 20100525	3M INNOVATIVE PROPERTIES CO [US]; YANDRASITS MICHAEL A [US]; LEE JI-HWA [KR]; YI YOUNGDON [KR]; PIERPONT DANIEL M [US]; HAMROCK STEVEN J [US]; SCHONEWILL MARK A [US]	H01M8/10	REINFORCED ELECTROLYTE MEMBRANE
TW201127748 A 20110816	US20090243846P 20090918; US20090264951P 20091130	A123 SYSTEMS INC [US]	C01B25/37; H01M4/525	FERRIC PHOSPHATE AND METHODS OF PREPARATION THEREOF
US2011195306 A1 20110811	US201113086883 20110414; US20060396515 20060403; US20050706273P 20050808; US20050741606P 20051202	A123 SYSTEMS INC [US]	H01M4/64; H01M4/136; H01M4/58; H01M10/0525; H01M10/36	NANOSCALE ION STORAGE MATERIALS INCLUDING CO-EXISTING PHASES OR SOLID SOLUTIONS
US2011287316 A1 20111124	US201113113971 20110523; US20100347195P 20100521; US20100355738P 20100617	ADA TECHNOLOGIES INC [US]	H01M4/62; B05D3/02; B05D3/06; B05D5/12; H01B1/24; H01B5/00; H01G9/00; H01G9/035; H01G9/155; H01L39/12; H01L39/24; H01M4/131; H01M4/505; H01M4/525; H01M4/583	HIGH PERFORMANCE CARBON NANO-TUBE COMPOSITES FOR ELECTROCHEMICAL ENERGY STORAGE DEVICES
WO2011137250 A1 20111103	US20100328916P 20100428	ADVANCED BIOMIMETIC SENSORS INC [US]; CHEN ELLEN [US]	H01M4/02	APPARATUS AND METHODS FOR MAKING HIGH PERFORMANCE FUEL CELL

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
JP2011219343 A 20111104	JP20100072610 20100326; JP20100288385 20101224	AISIN SEIKI	C01B31/02; H01G9/058; H01M4/86	CARBON NANOTUBE COMPOSITE AND METHOD FOR PRODUCING SAME
KR20110125811 A 20111122	KR20100045385 20100514	AMOGREENTECH CO LTD [KR]	H01M4/66; D01F6/00; H01G9/058; H01M10/0525	FIBROUS CURRENT COLLECTOR COMPRISING CARBON NANO FIBER, ELECTRODE USING THE SAME, AND METHOD OF MANUFACTURING THE SAME
KR20110138862 A 20111228	KR20100059001 20100622	AMOGREENTECH CO LTD [KR]	H01M4/66; D04H3/16; H01G9/058; H01M10/0525	FIBROUS CURRENT COLLECTOR MADE OF POLYMER WEB AND METHOD OF MANUFACTURING THE SAME
CN102195032 A 20110921	CN20101591312 20101216	AMPEREX TECHNOLOGY LTD	H01M4/139; H01M4/62	METHOD FOR PREPARING POLE PIECE OF LITHIUM ION BATTERY
CN102244265 A 20111116	CN20111156134 20110613	AMPEREX TECHNOLOGY LTD; NINGDE AMPEREX TECHNOLOGY CO LTD	H01M4/62; H01M10/052	CATHODE PLATE FOR SECONDARY LITHIUM BATTERY
US2011229761 A1 20110922	US201113069212 20110322; US20100316104P 20100322	AMPRIUS INC [US]	H01M4/58; B05D5/12	INTERCONNECTING ELECTROCHEMICALLY ACTIVE MATERIAL NANOSTRUCTURES
US2011287318 A1 20111124	US201113114413 20110524; US201113039031 20110302; US20100347614P 20100524	AMPRIUS INC [US]	H01M4/58; B05D5/12; C23C8/80; C23C28/00; C25D7/12; H01M4/04	MULTIDIMENSIONAL ELECTROCHEMICALLY ACTIVE STRUCTURES FOR BATTERY ELECTRODES



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011085327 A2 20110714	US20100294002P 20100111	AMPRIUS INC [US]; KOTTENSTETTE RYAN J; BERDICHEVSKY EUGENE M; STEFAN CONSTANTIN I [US]; ROBERTS GREGORY ALAN; HAN SONG [US]; CUI YI	H01M2/26; H01M2/22; H01M2/30	VARIABLE CAPACITY CELL ASSEMBLY
WO2011149958 A2 20111201	US20100347614P 20100524	AMPRIUS INC [US]; LOVENESS GHYRN E [US]; STEFAN CONSTANTIN I [US]; HAN SONG [US]	H01M4/02; B82B3/00; H01M4/04; H01M4/36; H01M4/66; H01M10/0525	MULTIDIMENSIONAL ELECTROCHEMICALLY ACTIVE STRUCTURES FOR BATTERY ELECTRODES
CN102231332 A 20111102	CN20111079537 20110331	ANHUI INST OPTICS & FINE MECH	H01G9/04; H01G9/20; H01L51/44; H01L51/46; H01L51/48; H01M14/00	FLEXIBLE DYE-SENSITIZED SOLAR CELLS (DSSCS) BASED ON TITANIUM DIOXIDE NANOMETER ROD ARRAY FILM AND PREPARATION METHOD THEREOF
CN102167397 A 20110831	CN20111050413 20110302	ANWELL TECHNOLOGIES LTD; DONGGUAN ORGANIC LIGHT DISPLAY INDUSTRY TECHNOLOGY RES INST	C01G23/053; B82Y40/00; H01G9/042; H01G9/20; H01L51/44; H01M14/00	METHODS FOR PREPARING POROUS SPHERICAL TITANIUM DIOXIDE AND LIGHT POSITIVE POLE
EP2351138 A2 20110803	WO2009US65205 20091119; US20080117535P 20081124; US20090620788 20091118	APPLIED MATERIALS INC [US]	H01M10/04; C23C2/00; C23C2/14; H01G9/042; H01M10/0525	APPARATUS AND METHOD FOR FORMING 3D NANOSTRUCTURE ELECTRODE FOR ELECTROCHEMICAL BATTERY OR CAPACITOR
KR20110118717 A 20111031	US20090368105 20090209	APPLIED MATERIALS INC [US]	H01G9/058; H01M10/052	METROLOGY METHODS AND APPARATUS FOR NANOMATERIAL CHARACTERIZATION OF ENERGY STORAGE ELECTRODE STRUCTURES
KR20110100275 A 20110909	US20080122306P 20081212	APPLIED MATERIALS INC [US]	H01M4/64; B82B3/00; H01M4/134; H01M4/38	THREE-DIMENSIONAL BATTERY WITH HYBRID NANO-CARBON LAYER

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011139574 A2 20111110	US20100331635P 20100505	APPLIED MATERIALS INC [US]; YANG LU [US]; BOLANDI HOOMAN [US]; BROWN KARL [US]; PEBENITO VICTOR [US]; OLGADO DONALD J K [US]	H01M4/139; H01M4/48; H01M4/58; H01M10/0525	HYDROTHERMAL SYNTHESIS OF ACTIVE MATERIALS AND IN SITU SPRAYING DEPOSITION FOR LITHIUM ION BATTERY
WO2011100487 A2 20110818	US20100304006P 20100212	APPLIED MATERIALS INC [US]; YANG LU [US]; LIU ERIC H [US]; ANAPOLSKY ABRAHAM [US]	H01M4/58; B82B3/00; C01B25/45; H01M4/136; H01M10/0525	HYDROTHERMAL SYNTHESIS OF LIFEPO4 NANOPARTICLES
US2011216476 A1 20110908	US201113039028 20110302; US20100309827P 20100302	APPLIED NANOSTRUCTURED SOLUTIONS LLC [US]	H01G9/155; H01G7/00	ELECTRICAL DEVICES CONTAINING CARBON NANOTUBE-INFUSED FIBERS AND METHODS FOR PRODUCTION THEREOF
US2011304964 A1 20111215	US201113117071 20110526; US20100355097P 20100615	APPLIED NANOSTRUCTURED SOLUTIONS LLC [US]	H05K7/00; H01G9/00; H01G9/042; H01G9/155	ELECTRICAL DEVICES CONTAINING CARBON NANOTUBE-INFUSED FIBERS AND METHODS FOR PRODUCTION THEREOF
WO2011109480 A2 20110909	US20100309828P 20100302	APPLIED NANOSTRUCTURED SOLUTIONS LLC [US]; FLEISCHER COREY ADAM [US]; SHAH TUSHAR K [US]; HETZEL LAWRENCE P [US]; MALECKI HARRY C [US]	H01G9/155; B65H81/02; H01B5/00; H01B5/04; H01G9/00	SPIRAL WOUND ELECTRICAL DEVICES CONTAINING CARBON NANOTUBE- INFUSED ELECTRODE MATERIALS AND METHODS AND APPARATUSES FOR PRODUCTION THEREOF
US2011163274 A1 20110707	FR20080055883 20080902; WO2009FR51612 20090820	ARKEMA FRANCE [FR]	H01B1/02; B05D5/12; H01B1/04; H01B1/24; H01M10/36	ELECTRODE COMPOSITE, BATTERY ELECTRODE FORMED FROM SAID COMPOSITE, AND LITHIUM BATTERY COMPRISING SUCH AN ELECTRODE
KR20110136867 A 20111221	FR20090001279 20090319	ARKEMA FRANCE [FR]; CENTRE NAT RECH SCIENT [FR]	H01M4/62; H01M4/131; H01M4/1391; H01M10/0525	FLUORINATED BINDER COMPOSITE MATERIALS AND CARBON NANOTUBES FOR POSITIVE ELECTRODES FOR LITHIUM BATTERIES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011117530 A1 20110929	FR20100057669 20100923; FR20100052091 20100323	ARKEMA FRANCE [FR]; NICOLAS SERGE [FR]; KORZHENKO ALEXANDER [FR]; MERCERON AMELIE [FR]; HAVEL MICKAEL [FR]; LECOMTE YVAN [FR]	H01M4/62; C04B40/00; C08J3/20; C08J5/00; H01B1/20	MASTERBATCH OF CARBON-BASED CONDUCTIVE FILLERS FOR LIQUID FORMULATIONS, ESPECIALLY IN LI-ION BATTERIES
EP2356070 A1 20110817	WO2009FR52408 20091204; FR20080058459 20081211	ARKEMA FRANCE [FR]; UNIV TOULOUSE 3 PAUL SABATIER [FR]	C01B31/02; C01G19/02; H01M4/48; H01M4/58	METHOD FOR MANUFACTURING A SNO2 COMPOSITE MATERIAL AND CARBON NANOTUBES AND/OR CARBON NANOFIBRES, MATERIAL OBTAINED BY THE METHOD, AND LITHIUM BATTERY ELECTRODE COMPRISING SAID MATERIAL
US2011311884 A1 20111222	FR20080004769 20080829; WO2009FR51642 20090828	ARMAND MICHEL [FR]; GRUGEON SYLVIE [FR]; LARUELLE STEPHANE [FR]; BUKOWSKA MARIA [PL]; SZCZECINSKI PRZEMYSŁAW [PL]; WIECZOREK WLADYSLAW [PL]; NIEDZICKI LESZEK [PL]; SCROSATI BRUNO [IT]; PANERO STEFANIA [IT]; REALLE PRISCILLA [IT]	H01M10/056; B01J19/12; C07D213/06; C07D233/90; C07D249/04; C07D295/00	PENTACYCLIC ANION SALT AND USE THEREOF AS AN ELECTROLYTE
US2011294044 A1 20111201	EP20080290988 20081021; WO2009IB07333 20091020	ARTERO VINCENT [FR]; FONTECAVE MARC [FR]; PALACIN SERGE [FR]; LE GOFF ALAN [FR]; JOUSSELME BRUNO [FR]	H01M4/02; C07F15/04; C25B11/00; C25B11/04; C25B11/12	NOVEL MATERIALS AND THEIR USE FOR THE ELECTROCATALYTIC EVOLUTION OR UPTAKE OF H2

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011136186 A1 20111103	JP20100101279 20100426	ASAHI GLASS CO LTD [JP]; YOSHITAKE MASARU [JP]; AMINO YOSUKE [JP]; KAWAMOTO MASAKO [JP]; TAKENAKA ATSUYOSHI [JP]	H01M4/86; H01M4/88; H01M4/92; H01M4/96	ELECTRODE MATERIAL
US2011227001 A1 20110922	US201113051145 20110318; US20100315444P 20100319	BASF SE [DE]	H01B1/18; H01M4/485; H01M4/58	ELECTRODE MATERIAL AND USE THEREOF FOR PRODUCTION OF ELECTROCHEMICAL CELLS
WO2011141486 A1 20111117	EP20100162807 20100514	BASF SE [DE]; MAX PLANCK GESELLSCHAFT [DE]; IVANOVICI SORIN [DE]; YANG SHUBIN [DE]; FENG XINLANG [DE]; MUELLEN KLAUS [DE]	C01G51/04; C09C3/08; H01M4/525	METHOD FOR ENCAPSULATING METALS AND METAL OXIDES WITH GRAPHENE AND USE OF SAID MATERIALS
US2011255212 A1 20111020	US20070439535 20070831; US20060841741P 20060901; US20060841743P 20060901; WO2007US19125 20070831	BATTELLE MEMORIAL INSTITUTE [US]	H01G9/155; B05D5/12; H01B1/04; H01B5/00	CARBON NANOTUBE NANOCOMPOSITES, METHODS OF MAKING CARBON NANOTUBE NANOCOMPOSITES, AND DEVICES COMPRISING THE NANOCOMPOSITES
US2011262810 A1 20111027	US201113088652 20110418; US20100327873P 20100426	BATTELLE MEMORIAL INSTITUTE [US]	H01M4/62; H01M4/26	NANOCOMPOSITE PROTECTIVE COATINGS FOR BATTERY ANODES
TW201126795 A 20110801	EP20090009472 20090722	BAYER MATERIALSCIENCE AG [DE]	H01M4/04; H01M4/62; H01M4/66	PROCESS FOR THE PRODUCTION OF STRETCHABLE ELECTRODES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
DE102010008444 A1 20110818	DE201010008444 20100218	BAYERISCHE MOTOREN WERKE AG [DE]	H01M2/20; H01M10/50	ENERGY-STORAGE SYSTEM I.E. ELECTRONIC ENERGY-STORAGE SYSTEM, FOR STORING HIGH VOLT ENERGY TO OPERATE ELECTRIC MACHINE OF HYBRID CAR, HAS CONTACT UNIT ELECTRICALLY COUPLING ENERGY STORAGE CELLS OF ENERGY STORAGE MODULES WITH ONE ANOTHER
CN102231450 A 20111102	CN20111105270 20110426	BEIJING INST TECHNOLOGY	H01M14/00; H01G9/048; H01G9/20	AUTOBIAS PHOTOELECTROCHEMICAL CELL BASED ON P-TYPE SILICON PHOTOCATHODE, AND PREPARATION METHOD THEREOF
CN102244236 A 20111116	CN20111155151 20110610	BEIJING INST TECHNOLOGY	H01M4/1391	METHOD FOR PREPARING LITHIUM-ENRICHED CATHODIC MATERIAL OF LITHIUM ION BATTERY
EP2375478 A1 20111012	EP20100003853 20100412	BELENOS CLEAN POWER HOLDING AG [CH]	H01M4/58; H01M10/0525	TRANSITION METAL BORATE COMPRISING CATHODE FOR RECHARGEABLE BATTERY
EP2378596 A1 20111019	EP20100003852 20100412; EP20110161856 20110411	BELENOS CLEAN POWER HOLDING AG [CH]	H01M4/58; H01M10/052	TRANSITION METAL OXIDENITRIDES AND NITROGEN-DOPED TRANSITION METAL OXIDES
US2011189579 A1 20110804	GB20080013669 20080725; WO2009GB01841 20090724	BISMARCK ALEXANDER [GB]; SHIRSHOVA NATASHA [GB]; GREENHALGH EMILE SMITH [GB]; STEINKE JOACHIM [GB]; SHAFFER MILO SEBASTIAN PETER [GB]	H01M8/10; H01G9/022; H01M10/052; H01M10/056	ELECTROLYTE
WO2011133954 A2 20111027	US20100342889P 20100422	BOREN ARTHUR [US]; OLSON DARIN [US]	H01M4/04; B82B3/00; B82Y40/00; H01M4/583; H01M4/70	CARBON NANOTUBE AUGMENTED ELECTRODES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011281156 A1 20111117	US201113109017 20110517; US20100395695P 20100517	BOREN ARTHUR DOUGLAS [US]; OLSON DARIN SCOTT [US]	H01M10/02; B05D1/36; B05D5/12; C23C16/26; C23C16/30; C23C16/50; H01M4/583; H01M4/66; H01M10/04	VERTICALLY ALIGNED CARBON NANOTUBE AUGMENTED LITHIUM ION ANODE FOR BATTERIES
JP2011162879 A 20110825	DE201010001567 20100204	BOSCH GMBH ROBERT [DE]	B22F1/02; C22C5/02; C22C5/04; C22C5/06; C22C9/00; C22C9/01; C22C9/02; C22C9/04; C22C9/05; C22C9/06; C22C9/10; C22C27/00; H01B5/00; H01B13/00	CONDUCTIVE MATERIAL
WO2011131584 A1 20111027	DE201010027950 20100420	BOSCH GMBH ROBERT [DE]; HASENKOX ULRICH [DE]; SORHAGE CONSTANZE [DE]	H01M4/38; H01M4/04; H01M4/136; H01M4/1397; H01M4/62; H01M10/0525	CATHODE COMPOSITION FOR LITHIUM SULFUR CELLS
CN102142557 A 20110803	CN20101106192 20100129	BYD CO LTD [CN]	H01M4/58; H01M4/136; H01M4/1397	ANODE ACTIVE MATERIAL AND PREPARATION METHOD THEREOF
CN102208601 A 20111005	CN20101140986 20100331	BYD CO LTD [CN]	H01M4/133; H01M4/1393	CATHODE MATERIAL AND PREPARATION METHOD THEREOF
US2011223491 A1 20110915	CN20081188167 20081224; WO2009CN75825 20091222	BYD CO LTD [CN]	H01M10/02; B32B5/16; C01G23/04; H01M4/485	LITHIUM TITANATE COMPOSITE MATERIAL, PREPARATION METHOD THEREOF, NEGATIVE ACTIVE SUBSTANCE AND LITHIUM ION SECONDARY BATTERY CONTAINING THE SAME
CN102169980 A 20110831	CN20101117080 20100227	BYD CO LTD [CN]	H01M4/1391; H01M4/485	PREPARATION METHOD OF ANODE ACTIVE MATERIAL
CN102208618 A 20111005	CN20101141058 20100331	BYD CO LTD [CN]	H01M4/1397; C01B25/45; H01M4/58	PREPARATION METHOD OF LITHIUM ION PHOSPHATE USED AS POSITIVE ELECTRODE ACTIVE MATERIAL

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011100361 A2 20110818	US20100303003P 20100210	C3 INTERNATIONAL LLC [US]; UT BATTELLE LLC [US]; BUDARAGIN LEONID V [RU]; DEININGER MARK A [US]; POZVONKOV MICHAEL M [US]; SPEARS II D MORGAN [US]; FISHER PAUL D [US]; LUDTKA GERARD M [US]; PASTO ARVID E [US]	H01M8/12; B82B3/00; H01B1/08; H01M8/02	LOW TEMPERATURE ELECTROLYTES FOR SOLID OXIDE CELLS HAVING HIGH IONIC CONDUCTIVITY
US2011245073 A1 20111006	WO2010US29634 20100401; US20100851869 20100806	CABOT CORP [US]	B01J23/10; B01J23/42; B01J23/44; B01J23/58	DIESEL OXIDATION CATALYSTS
WO2011081944 A2 20110707	US20090286101P 20091214	CALIFORNIA INST OF TECHN; YAZAMI RACHID; WEISS CEDRIC M; KANER RICHARD B; D ARCY JULIO; UNIV CALIFORNIA [US]; CENTRE NAT RECH SCIENT	H01M4/00; B82B3/00; D06M10/00; H01G9/04	ELECTRODES INCORPORATING NANOSTRUCTURED POLYMER FILMS FOR ELECTROCHEMICAL ION STORAGE
AU2010254533 A1 20111208	US20090217132P 20090526; WO2010US01535 20100526	CARLSON STEVEN	H01M2/14	BATTERIES UTILIZING ELECTRODE COATINGS DIRECTLY ON NANOPOROUS SEPARATORS
US2011165458 A1 20110707	FR20080053918 20080613; WO2009FR51076 20090608	CENTRE NAT RECH SCIENT [FR]	H01M4/02; B05D5/12; B32B9/00; C25B11/12; C25C7/02; C25D5/54; C25D7/06; C25D17/10; D01D5/00; G01N27/327	ELECTRICALLY CONDUCTING FIBRES FOR BIOELECTROCHEMICAL SYSTEMS, ELECTRODES MADE WITH SUCH FIBRES, AND SYSTEM INCLUDING ONE OR MORE SUCH ELECTRODES
CN102145283 A 20110810	CN20111048729 20110301	CHANGCHUN APPLIED CHEMISTRY	B01J23/42; H01M4/92	SUPPORTED PLATINUM CATALYST FOR FUEL CELL AND PREPARATION METHOD THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011256472 A1 20111020	KR20100035266 20100416	CHEIL IND INC [KR]	H01M4/62; B01J31/06; H01M4/88	CATALYST SLURRY COMPOSITION FOR FUEL CELL ELECTRODE, CATALYTIC LAYER FOR FUEL CELL ELECTRODE USING THE CATALYST SLURRY COMPOSITION, METHOD FOR PRODUCING THE CATALYTIC LAYER AND MEMBRANE-ELECTRODE ASSEMBLY INCLUDING THE CATALYTIC LAYER
CN102227022 A 20111026	CN20111125678 20110516	CHENGDU ZHONGKELAIFANG ENERGY TECHNOLOGY CO LTD	H01M4/58; H01M4/136; H01M4/1397	LI2FESIO4 ANODE MATERIAL FOR LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
CN102208615 A 20111005	CN20111115246 20110505	CHENGLIANG QIAN	H01M4/1393	METHOD FOR PREPARING CARBON-CARBON COMPOSITE LITHIUM ION BATTERY CATHODE MATERIAL
CN102136576 A 20110727	CN20111030938 20110128	CHINA AVIAT LITHIUM BATTERY LUOYANG CO LTD	H01M4/62	CONDUCTIVE AGENT USED FOR LITHIUM IRON PHOSPHATE BATTERY AND PREPARATION METHOD THEREOF
CN102259933 A 20111130	CN20111128103 20110509	China University of Mining & Technology	C01G49/06; B82Y40/00; H01M4/52	PREPARATION METHOD AND APPLICATION OF RICE-GRAIN ALPHA-IRON TRIOXIDE
CN102148373 A 20110810	CN20111050063 20110302	CHINESE ACAD INST CHEMISTRY	H01M4/525; H01M4/1391; H01M4/505	CATHODE MATERIAL OF LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
CN102255069 A 20111123	CN20111147410 20110602	CHINESE ACAD INST CHEMISTRY	H01M4/131; H01M4/1391	LITHIUM-RICH CATHODE MATERIAL OF LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
CN102130342 A 20110720	CN20101034505 20100119	CHINESE ACAD INST CHEMISTRY	H01M4/88; B01J21/06; B01J23/38; B01J23/42; H01M4/90; H01M8/10	NOBLE METAL-TITANIUM DIOXIDE NANO FIBER COMPLEX AND PREPARATION METHOD AND APPLICATION THEREOF



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102242464 A 20111116	CN20101172451 20100510	CHINESE ACAD TECH INST PHYSICS	D04H3/00; B01D69/12; D01D5/00; D01F1/10; H01G4/06; H01M2/16	POLYMER-CERAMIC COMPOUND NANOMETER FIBROUS MEMBRANE AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF
CN102250324 A 20111123	CN20111131931 20110520	CHINESE ACAD TECH INST PHYSICS	C08G61/12; C08K3/04; C08K7/00; C08K13/04	PREPARATION METHOD OF POLY(3,4- ETHYLENEDIOXYTHIOPHENE) (PEDOT)- COATED CARBON NANOTUBE COMPOSITE MATERIAL
US2011229798 A1 20110922	KR20100024357 20100318	CHO HYE-JUNG [KR]; NA YOUNG-SEUNG [KR]; KWON SUK-WOONG [KR]; SOH DAE- YEON [KR]; KIM YONG-KI [KR]	H01M2/08	CONNECTOR FOR FUEL CELL AND FUEL CELL SYSTEM INCLUDING THE SAME
CN102148405 A 20110810	CN20111053711 20110307	CHONGQING LEOPARD POWER BATTERY CO LTD	H01M10/058; H01M2/26; H01M4/1391; H01M4/1393; H01M10/0567	METHOD FOR MANUFACTURING LOW- TEMPERATURE LITHIUM-ION BATTERY
CN102185126 A 20110914	CN20111070117 20110323	CITIC GUO AN MENGLI POWER SCIENCE & TECHNOLOGY CO LTD	H01M4/04; H01M4/139	METHOD FOR DISPERSING MICRO-SCALE AND NANO-SCALE ELECTRODE MATERIALS
FR2956776 A1 20110826	FR20100000775 20100225	COMMISSARIAT ENERGIE ATOMIQUE [FR]	H01M10/38	ACCUMULATEUR LITHIUM-ION PRESENTANT UNE FORTE PUISSANCE ET UN FAIBLE COUT
US2011183205 A1 20110728	FR20080001032 20080226; WO2009FR00149 20090211	COMMISSARIAT ENERGIE ATOMIQUE [FR]	H01M4/58; C25D9/04	PROCESS FOR FABRICATING A SILICON- BASED ELECTRODE, SILICON-BASED ELECTRODE AND LITHIUM BATTERY COMPRISING SUCH AN ELECTRODE

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
FR2958184 A1 20111007	FR20100052577 20100406	COMMISSARIAT ENERGIE ATOMIQUE [FR]; CENTRE NAT RECH SCIENT [FR]; UNIV PARIS CURIE [FR]	B01D69/14; B01D71/00; H01M8/10	NANOFIBRES HYBRIDES ORGANIQUES-INORGANIQUES A PHASE INORGANIQUE MESOPOREUSE, LEUR PREPARATION PAR EXTRUSION ELECTRO-ASSISTEE, MEMBRANE, ELECTRODE, ET PILE A COMBUSTIBLE.
US2011305975 A1 20111215	FR20080058629 20081216; WO2009EP67217 20091215	COMMISSARIAT ENERGIE ATOMIQUE [FR]; ST MICROELECTRONICS TOURS SAS [FR]	H01M4/92; B01J31/08; C08F2/50; H01M4/88	CATALYTIC PARTICULATE SOLUTION FOR A MICRO FUEL CELL AND RELATED METHOD
US2011217628 A1 20110908	WO2008IB03693 20081112	COMMISSARIAT ENERGIE ATOMIQUE [FR]; UNIV BARI [IT]	B01J23/644; B01J31/06; H01M4/92	CATALYST THIN LAYER AND METHOD FOR FABRICATING THE SAME
ES2369814 A1 20111207	ES20100030671 20100503	CONSEJO SUPERIOR INVESTIGACION [ES]; UNIV LA LAGUNA	B01J21/18; B01J23/42; B01J37/00; B82Y30/00; C01B31/00	ELECTROCATALIZADORES PARA PILAS DE COMBUSTIBLE DE BAJA TEMPERATURA.
US2011256451 A1 20111020	US20100974552 20101221; US20090288708P 20091221	CUI LI-FENG [US]; CUI YI [US]; HU LIANGBING [US]	H01M4/02; B29C39/36; B32B3/26; B32B19/00; H01L31/02; H01M4/66	NANOTUBE-BASED NANOMATERIAL MEMBRANE
US2011200883 A1 20110818	US20100914876 20101028; US20090256151P 20091029	CUI YI [US]; YANG YUAN [US]; MCDOWELL MATTHEW [US]; JACKSON ARIEL [US]	H01M4/58; H01B1/04; H01M4/04; H01M4/587; H02J7/00	DEVICES, SYSTEMS AND METHODS FOR ADVANCED RECHARGEABLE BATTERIES
JP2011253675 A 20111215	JP20100125903 20100601	DAINIPPON PRINTING CO LTD	H01M4/86; H01M4/90; H01M8/10	CATALYST LAYER-ELECTROLYTE MEMBRANE LAMINATE AND SOLID POLYMER FUEL CELL USING IT
JP2011253674 A 20111215	JP20100125902 20100601	DAINIPPON PRINTING CO LTD	H01M4/90; H01M4/86; H01M4/88; H01M8/02; H01M8/10	METHOD OF MANUFACTURING CATALYST LAYER-ELECTROLYTE MEMBRANE LAMINATE AND SOLID POLYMER FUEL CELL USING THE SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011294013 A1 20111201	US200913140029 20091218; US20080139050P 20081219; WO2009US68781 20091218	DESIGNED NANO TUBES LLC	H01M4/485; C08L63/02; D01F9/08; D01F9/12; H01G9/042	EXFOLIATED CARBON NANOTUBES, METHODS FOR PRODUCTION THEREOF AND PRODUCTS OBTAINED THEREFROM
DE102010029502 A1 20111201	DE201010029502 20100531	DEUTSCH ZENTR LUFT & RAUMFAHRT [DE]	H01M4/86; C23C4/10	ELECTROCHEMICAL FUNCTIONAL STRUCTURE USEFUL AS ELECTRODE UNIT IN HIGH TEMPERATURE FUEL CELL, COMPRISES FIRST AND SECOND ELECTROCHEMICAL FUNCTIONAL LAYERS MADE OF MATERIAL PARTICLES THAT INCLUDE PORTIONS OF MICROPARTICLES AND NANOPARTICLES
CN102214517 A 20111012	CN20101156522 20100407	DEYUAN SOLAR ENERGY TECHNOLOGY CO LTD	H01G9/20; H01G9/042; H01L51/48; H01M14/00	METHOD FOR MANUFACTURING LARGE- AREA SOLAR CELL AND MOLD STRUCTURE
CN102214518 A 20111012	CN20101156529 20100407	DEYUAN SOLAR ENERGY TECHNOLOGY CO LTD	H01G9/20; H01L21/82; H01L27/30; H01L51/42; H01L51/48; H01M14/00	STRUCTURE OF ARRAY TYPE TANDEM SOLAR BATTERY MODULE AND MANUFACTURING METHOD THEREOF
CN102208645 A 20111005	CN20111115424 20110505	DONGFANG ELECTRIC CORP	H01M4/58; H01M4/136; H01M4/1397; H01M10/052	LITHIUM SULFUR BATTERY ANODE COMPOSITE MATERIAL, ANODE AND LITHIUM SULFUR BATTERY

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
EP2360758 A2 20110824	EP20070735415 20070406; EP20060112361 20060407; WO2006IB53832 20061018; WO2006IB53833 20061018; EP20110153267 20070406	DOW GLOBAL TECHNOLOGIES LLC [US]	H01M4/13; H01M10/0525; H01M10/0567; H01M10/058; H01M10/36	LITHIUM RECHARGEABLE ELECTROCHEMICAL CELL
BRPI0617584 A2 20110802	US20050240738 20050930; WO2006US38098 20060929	DU PONT [US]	H01G9/02; H01G9/155; H01M2/16	CAPACITOR DE CAMADA DUPLA ELETROQUÍMICO
US2011171533 A1 20110714	US201113053788 20110322; US20060393293 20060330; US20050172099 20050630; US20040995968 20041123	DU PONT [US]	H01M4/40; B01J21/06; B32B5/00; C08K9/04; C09D1/00; H01M4/48	MESOPOROUS OXIDE OF TITANIUM
WO2011102423 A1 20110825	JP20100032387 20100217	EAMEX CORP [JP]; UNIV KYUSHU NAT UNIV CORP [JP]; ITO KENGO [JP]; YAMADA SUNAO [JP]; AKIYAMA TSUYOSHI [JP]	H01M14/00; H01L31/04	PHOTOELECTRIC CONVERSION ELEMENT, METHOD FOR MANUFACTURING PHOTOELECTRIC CONVERSION ELEMENT, AND POLYMER ELECTROLYTE SOLAR CELL
RU2424604 C1 20110720	RU20090149841 20070531	EHLKOGEN AS [EE]	H01M8/12	MANUFACTURING METHOD OF SINGLE SOLID-OXIDE FUEL ELEMENT

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
AT525766T T 20111015	DE200710011424 20070308; WO2008EP01803 20080306	ELCOMAX MEMBRANES GMBH [DE]; LANXESS DEUTSCHLAND GMBH [DE]	H01M8/10	POLYMERELEKTROLYTMEMBRAN MIT FUNKTIONALISIERTEN NANOPARTIKELN
TWM416884U U 20111121	TW100210917U 20110616	ELSA OPTICAL TECHNOLOGY INC [TW]; ELSA DONGGUAN OPTICAL TECHNOLOGY INC [CN]	H01M10/08	CERAMIC NANO PHYSICAL ENERGY STORAGE DEVICE
WO2011140045 A1 20111110	US20100343696P 20100503	EMPIRE TECHNOLOGY DEV LLC [US]; ZHANG WEI-JUN [US]	C25B1/00; C25B15/08; C25C1/14; C25C5/02; C25C7/08; H01M4/134; H01M10/0525; H01M10/0569	A METHOD AND APPARATUS FOR FORMING PARTICLES AND FOR RECOVERING ELECTROCHEMICALLY REACTIVE MATERIAL
CN102173403 A 20110907	CN20111025787 20110125	ENERGY RES INST OF SHANDONG ACADEMY OF SCIENCES	C01B25/45; B82Y40/00; H01M4/1397	PREPARATION METHOD OF MICRO-NANO LITHIUM FERRIC PHOSPHATE (LIFEPO4) POSITIVE ELECTRODE MATERIAL OF LITHIUM-ION BATTERY
WO2011117692 A1 20110929	EP20100425087 20100323	FIAT RICERCHE [IT]; PULLINI DANIELE [IT]; SGROI MAURO [IT]	C08J7/18; B01D67/00; H01M10/04	METHOD FOR THE PRODUCTION OF POLYMERIC MEMBRANES HAVING AN ORDERED ARRANGEMENT OF HIGH-ASPECT-RATIO NANOPORES, BY MEANS OF HEAVY ION BOMBING
US2011189564 A1 20110804	US201113015848 20110128; US20100299782P 20100129; US20100332422P 20100507	FORMFACTOR INC	H01M8/06; H01M4/88; H01M8/00; H01M8/10	FUEL CELL USING CARBON NANOTUBES
CN102153068 A 20110817	CN20101605148 20101224	FOSHAN BRUNP CYCLE TECHNOLOGY CO LTD	C01B31/02; H01M4/38	REGENERATED CONDUCTING CARBON AND MANUFACTURING METHOD AND APPLICATION THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
JP2011233514 A 20111117	JP20100090781 20100409; JP20110072970 20110329	FUJIFILM CORP	H01B5/14; B82Y30/00; G06F3/041; H01B13/00; H01H11/04; H01L31/04	CONDUCTIVE FILM, MANUFACTURING METHOD THEREOF, TOUCH PANEL AND SOLAR CELL
JP2011222323 A 20111104	JP20100090797 20100409	FUJIKURA LTD	H01M14/00; C01B31/02; H01G9/016; H01G9/058; H01L31/04; H01M4/133; H01M4/1393; H01M4/587; H01M4/66	METAL SUBSTRATE, CARBON NANOTUBE ELECTRODE AND METHOD FOR MANUFACTURING THE SAME
WO2011160514 A1 20111229	CN20101206556 20100621	FUNG KA CHAI [CN]	H01M10/10; H01M10/12	ELECTROLYTE OF LEAD-ACID ACCUMULATOR AND PREPARATION METHOD THEREOF
CN102263244 A 20111130	CN20111177982 20110629	Fuzhou University	H01M4/1395; B82Y40/00	METHOD FOR PREPARING CARBON CONFINED-CLAD STANNUM (SN)/MAGNESIUM OXIDE (MGO) NANOWIRE ARRAY FOR LITHIUM ION BATTERY
US2011182000 A1 20110728	US20100970073 20101216; US20100297469P 20100122	GADKAREE KISHOR PURUSHOTTAM [US]; LIU JIA [US]	H01G9/155	MICROPOROUS ACTIVATED CARBON FOR EDLCS
WO2011116080 A1 20110922	US20100406523P 20101025; US20100315457P 20100319; US20100407274P 20101027	GEORGIA INST OF TECH OFFICE OF TECHNOLOGY LICENSING [US]; KANG DU-YEN [US]; NAIR SANKAR [US]; JONES CHRISTOPHER W [US]	H01M4/48; B05D5/12	SINGLE-WALLED METAL OXIDE NANOTUBES
WO2011156599 A2 20111215	US20100352965P 20100609	GEORGIA PACIFIC CHEMICALS LLC [US]; MULIK SUDHIR M [US]; LUDVIK JOSEPH F [US]; FLEMING ROBERT W [US]; LEE CHRISTOPHER M [US]	C01B31/02; B01J13/00; B82B3/00; H01B1/04; H01M4/96	METHODS FOR PRODUCING PRECURSOR SOLUTIONS AND SOL-GELS FOR NANO-ENGINEERED CARBON MATERIALS AND NON-ENGINEERED CARBON MATERIALS CREATED THEREFROM

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
ES2370608T T3 20111220	US20070007082P 20071211	GLATFELTER CO P H [US]	H01M2/16	ESTRUTURAS SEPARADORAS DE BATERIA.
DE102011017417 A1 20111027	US20100765042 20100422; US201113000034 20110225	GM GLOBAL TECH OPERATIONS INC [US]	H01M8/02	BIPOLAR PLATE ASSEMBLY FOR FUEL CELL USED AS POWER SOURCE IN MOTOR CAR, HAS UNIPOLAR CATHODE AND ANODE PLATES FORMED BY DEPOSITION PROCESS WITH THICKNESS OF MATERIAL OF LOW CONTACT RESISTANCE AND HIGH CORROSION RESISTANCE ON SUBSTRATE
US2011294037 A1 20111201	US20100788915 20100527	GM GLOBAL TECH OPERATIONS INC [US]	H01M8/10; H01M4/02	ELECTRODE CONTAINING NANOSTRUCTURED THIN CATALYTIC LAYERS AND METHOD OF MAKING
CN102191499 A 20110921	US20100727628 20100319	GM GLOBAL TECH OPERATIONS INC [US]	C23C26/00; H01M4/88; H01M8/02	METHOD OF COATING A SUBSTRATE WITH NANOPARTICLES INCLUDING A METAL OXIDE
US2011255214 A1 20111020	US201113089299 20110418; US20100325326P 20100418	GRUNER GEORGE [US]; O'CONNOR IAN [US]	H01G9/155	CHARGE STORAGE DEVICE ARCHITECTURE FOR INCREASING ENERGY AND POWER DENSITY
US2011223482 A1 20110915	JP20080285989 20081106; WO2009JP69046 20091109	GS YUASA INT LTD [JP]	H01M4/583; H01M4/525; H01M4/86	POSITIVE ELECTRODE FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY
CN201904403U U 20110720	CN20102667039U 20101217	GUANGZHOU CITY WINTONIC BATTERY & MAGNET CO LTD; XIAOGAN UNIVERSITY	H01M4/32; H01M4/52; H01M4/62; H01M4/64	SPECIAL POSITIVE ELECTRODE FOR NICKEL-HYDROGEN POWER BATTERY
CN102254704 A 20111123	CN20111116153 20110506	HAINAN INST OF SCIENCE & TECHNOLOGY	H01G9/042; H01G9/20; H01L51/44; H01L51/48; H01M14/00	DYE SENSITIZED NOBLE METAL DEPOSITED TITANIUM DIOXIDE LIGHT ANODE AND PREPARATION METHOD THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102201575 A 20110928	CN20111093953 20110414	HARBIN INST OF TECHNOLOGY	H01M4/58	LEAD SULFATE-GRAPHENE COMPOSITE ELECTRODE MATERIAL AND LEAD-ACID BATTERY NEGATIVE ELECTRODE LEAD PASTE CONTAINING SAME
CN102201571 A 20110928	CN20111084627 20110329	HEBEI UNITED UNIVERSITY; TANGSHAN BAOTIE COAL CHEMICAL INDUSTRY CO LTD	H01M4/1393; B82Y40/00; H01G9/042	METHOD FOR SYNTHESIZING MESOCARBON MICROBEAD MICRO-NANO COMPOSITE MATERIAL BY MICROWAVE RADIATION METHOD AND APPLICATION OF COMPOSITE MATERIAL
CN102244234 A 20111116	CN20111143203 20110531	HEFEI GUOXUAN HIGH TECH POWER ENERGY CO LTD	H01M4/1391	METHOD FOR CARBON-WRAPPED NIOBIUM-DOPED NANOMETER LITHIUM TITANATE MATERIAL
EP2360115 A1 20110824	EP20100153537 20100212; EP20100194892 20101214	HELMHOLTZ ZENT B MAT & ENERG [DE]; CONSEJO SUPERIOR INVESTIGACION [ES]	B81C99/00	METHOD OF PRODUCING A POLYMER STAMP FOR THE REPRODUCTION OF DEVICES COMPRISING MICROSTRUCTURES AND NANOSTRUCTURES, A CORRESPONDING POLYMER STAMP, AND A CORRESPONDING DEVICE
CN102148344 A 20110810	CN20111058918 20110311	HENAN YITENG NEW ENERGY TECHNOLOGY CO LTD	H01M2/14	PREPARATION METHOD OF LITHIUM ION BATTERY DIAPHRAGM
CN102227030 A 20111026	CN20111125764 20110516	HEYUAN NEW LINGJIA ELECTRICO ACOUSTIC CO LTD	H01M10/0525; H01M4/62; H01M10/058	LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
JP2011222130 A 20111104	JP20100086367 20100402	HITACHI LTD	H01M8/02	LAMINATED FUEL CELL AND METHOD OF MANUFACTURING THE SAME
JP2011134664 A 20110707	JP20090294734 20091225	HITACHI MAXELL	H01M4/1393; C01B31/02; H01G9/058; H01L31/04; H01M4/587; H01M4/90	METHOD OF MANUFACTURING ELECTRODE



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
JP2011171400 A 20110901	JP20100031896 20100217	HITACHI SHIPBUILDING ENG CO	H01G9/058	ELECTRODE MEMBER USING CARBON NANOTUBE, ELECTRIC DOUBLE LAYER CAPACITOR USING ELECTRODE MEMBER, AND METHOD OF MANUFACTURING ELECTRODE MEMBER
CN102208641 A 20111005	CN20111127573 20110517	HKUST FOK YING TUNG GRADUATE SCHOOL	H01M4/52; H01M4/1391; H01M4/62	METHOD FOR SYNTHESIZING $Fe_3O_4/C$ LITHIUM ION BATTERY CATHODE MATERIAL WITH HOLLOW SPHERE STRUCTURE BY ONE-STEP PROCESS
CN102208637 A 20111005	CN20101537755 20101109	HKUST FOK YING TUNG GRADUATE SCHOOL	H01M4/48; H01M4/1391; H01M4/62	$ZnFe_2O_4/C$ COMPOSITE CATHODE MATERIAL WITH HOLLOW SPHERE STRUCTURE AND ONE-STEP PREPARATION METHOD THEREOF
US2011318613 A1 20111229	DE200910005497 20090121; EP20090012981 20091014; WO2010EP00257 20100118	HOHENTHANNER CLAUS- RUPERT [DE]; MEINTSCHEL JENS [DE]	H01M2/06; H01M2/16; H01M4/485; H01M4/505; H01M4/525; H01M4/64; H01M10/04; H01M10/50	GALVANIC CELL COMPRISING SHEATHING II
US2011300448 A1 20111208	US201113209568 20110815; CN20071077110 20070914; US20080080714 20080404	HON HAI PREC IND CO LTD [TW]; UNIV TSINGHUA [CN]	H01M4/583; H01M4/133; H01M4/1393; H01M4/48; H01M4/485; H01M4/58; H01M4/587	ANODE OF LITHIUM BATTERY AND LITHIUM BATTERY USING THE SAME
US2011262805 A1 20111027	CN20101157435 20100427	HON HAI PREC IND CO LTD [TW]; UNIV TSINGHUA [CN]	H01M4/62; H01M4/583; H01M4/96	CATHODE OF LITHIUM ION BATTERY AND METHOD FOR FABRICATING THE SAME
WO2011096355 A1 20110811	JP20100021529 20100202	HONDA MOTOR CO LTD [JP]; MITSUTA NAOKI [JP]; TANAKA SHINTARO [JP]; EGUCHI TAKU [JP]	H01M8/02; H01M4/86; H01M8/10	MEMBRANE ELECTRODE STRUCTURE FOR SOLID POLYMER FUEL CELL, AND SOLID POLYMER FUEL CELL

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
TW201123463 A 20110701	TW20090143332 20091217	HSIUPING INST TECHNOLOGY [TW]	H01L31/0224; H01L31/042; H01L31/18; H01M14/00	WORKING ELECTRODE, DYE-SENSITIZED SOLAR CELL MANUFACTURED BY USING THE SAME AND MANUFACTURING METHOD THEREOF.
US2011200873 A1 20110818	US20100916053 20101029; US20090256741P 20091030	HU LIANGBING [US]; CHOI JANG WOOK [KR]; YANG YUAN [US]; CUI YI [US]	H01M10/02; B05D5/12; H01G9/004; H01M4/64; H01M10/00	CONDUCTIVE FIBROUS MATERIALS
KR20110124383 A 20111117	KR20100043715 20100511	HYUNDAI MOTOR CO LTD [KR]; KOREA ADVANCED INST SCI & TECH [KR]	H01M8/04; C08J7/00; H01M8/10	MANUFACTURING METHOD OF COMPOSITE SEPARATION PLATE FOR FUEL CELL AND COMPOSITE SEPARATION PLATE MANUFACTURED BY THE SAME
WO2011094642 A1 20110804	US20100299749P 20100129; US20100777165 20100510	ILLUMINEX CORP [US]; CARACCIOLO ROBERT; HABIB YOUSSEF	H01M4/00; B32B3/26; B82B3/00	NANO-COMPOSITE ANODE FOR HIGH CAPACITY BATTERIES AND METHODS OF FORMING SAME
CN102136374 A 20110727	CN20101003357 20100121	IND TECH RES INST [TW]	H01G9/20; H01L51/42; H01L51/48; H01M14/00	DYE SENSITIZED SOLAR CELL AND PREPARATION METHOD THEREOF
TW201123583 A 20110701	TW20090145763 20091230	IND TECH RES INST [TW]	H01M14/00; H01L31/0224; H01L31/18	DYE-SENSITIZED SOLAR CELL AND METHOD FORMING THE SAME
CN102157270 A 20110817	TW20100140432 20101123	IND TECH RES INST [TW]	H01G9/042; H01G9/20; H01L51/42; H01L51/44; H01M14/00	QUANTUM DOT DYE-SENSITIZED SOLAR CELL
US2011300442 A1 20111208	US20100792207 20100602	INFINITY ENERGY HONG KONG CO LTD [HK]	H01M4/131; H01M4/60	NOVEL NANOSCALE SOLUTION METHOD FOR SYNTHESIZING LITHIUM CATHODE ACTIVE MATERIALS
KR20110080054 A 20110712	KR20100000210 20100104	INHA IND PARTNERSHIP INST [KR]	H01G9/058; H01G9/042	METHOD FOR MANUFACTURING METAL OXALATE NANO STRUCTURES FOR SUPERCAPACITORS

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
KR20110134712 A 20111215	KR20100054439 20100609	INHA IND PARTNERSHIP INST [KR]	B01J23/42; B01J21/18; H01M4/92; H01M4/96	MODIFIED METAL CATALYST SUPPORTED ON MIXED CARBON SUPPORT, AND PREPARATION THEREOF
CN102255086 A 20111123	CN20111093200 20110402	INST OCEANOLOGY CHINESE ACAD	H01M4/90; B01J23/75; B01J37/34	GRAPHENE-BASED COMPOSITE AIR ELECTRODE CATALYST AND PREPARATION METHOD THEREOF
CN102157741 A 20110817	CN20111053195 20110307	INST PLASMA PHYSICS CAS	H01M4/88	MANUFACTURING METHOD OF MEMBRANE ELECTRODE OF NOVEL ULTRATHIN PROTON EXCHANGE MEMBRANE FUEL CELL
CN102231330 A 20111102	CN20111083282 20110402	INST PROCESS ENG CAS	H01G9/038	NANO COMPOSITE POLYMER ELECTROLYTE AND PREPARATION METHOD THEREOF
CN102185139 A 20110914	CN20111079630 20110331	INST PROCESS ENG CAS	H01M4/1397	PREPARATION METHOD OF NANOMETER METALLIC OXIDE/GRAPHENE DOPED LITHIUM IRON PHOSPHATE ELECTRODE MATERIAL
CN102185140 A 20110914	CN20111079644 20110331	INST PROCESS ENG CAS	H01M4/1397	PREPARATION METHOD OF NANO- NETWORK CONDUCTIVE POLYMER COATED LITHIUM IRON PHOSPHATE ANODE MATERIAL
KR20110109350 A 20111006	KR20100029038 20100331	INST SCIENCE & TECH KWANGJU [KR]	B01J23/62; B01J37/08; H01M4/90; H01M8/10	METHOD FOR FABRICATING HYBRID CATALYST WITH METAL OXIDE NANOWIRE, ELECTRODE AND FUEL CELL CONTAINING HYBRID CATALYST FABRICATED BY THE SAME
CN102157265 A 20110817	CN20111067722 20110321	INST SEMICONDUCTORS CAS	H01G9/04; H01G9/20; H01L51/44; H01L51/48; H01M14/00	COMPOSITE ELECTRODE OF DYE SENSITIZED SOLAR CELL AND PREPARATION METHOD THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102222572 A 20111019	CN20111067723 20110321	INST SEMICONDUCTORS CAS	H01G9/04; H01G9/20; H01L51/48; H01M14/00	PREPARATION METHOD OF LIGHT ANODE WITH A COMPOSITE NANO-WIRE ARRAY/ NANO-CRYSTALLINE POROUS MEMBRANE STRUCTURE
CN102267684 A 20111207	CN20101190862 20100603	Institute of Chemistry, Chinese Academy of Sciences	B82B3/00; B82B1/00; H01M4/90	METALLIC NANO PARTICLE/ CARBON COMPOSITE MATERIAL AND PREPARATION METHOD AND APPLICATION THEREOF
CN102222574 A 20111019	CN20111077152 20110329	IRICO GROUP CORP	H01G9/04; H01G9/20; H01L31/0224; H01L31/18; H01M14/00	AG MODIFIED TIO2 MEMBRANE ELECTRODE FOR SOLAR CELL AND PREPARATION METHOD THEREOF
CN102231304 A 20111102	CN20111075886 20110328	IRICO GROUP CORP	H01B13/00; H01B1/08; H01G9/042; H01G9/20; H01L51/48; H01M14/00	METHOD FOR PREPARING NANO TIO2 (TITANIUM DIOXIDE) PASTES
CN102231331 A 20111102	CN20111077153 20110329	IRICO GROUP CORP	H01G9/04; H01G9/20; H01L51/48; H01M14/00	METHOD FOR PREPARING COUNTER ELECTRODE OF DYE-SENSITIZED SOLAR CELL
JP2011256105 A 20111222	JP20040042907 20040219; JP20110148276 20110704	JAPAN SCIENCE & TECH AGENCY	C01G45/00; B01J20/06; C01G45/02; H01G9/058	METHOD FOR PRODUCING MANGANESE CARBONATE POWDER CARRYING H+ TYPE MANGANESE OXIDE AND METHOD FOR PRODUCING H+ TYPE MANGANESE OXIDE NANOPARTICLE AGGREGATE POWDER
US2011171535 A1 20110714	JP20080235773 20080912; WO2009JP65908 20090911	JAPAN VILENE CO LTD [JP]	H01M2/16; B05D3/00; B05D5/00	SEPARATOR FOR LITHIUM ION SECONDARY BATTERY, METHOD FOR MANUFACTURE THEREOF, AND LITHIUM ION SECONDARY BATTERY
CN102208686 A 20111005	CN20111127229 20110517	JIANGSU CEL BATTERY CO LTD	H01M10/058; H01M4/1397; H01M10/0525	POWER BATTERY USING DOUBLE-NETWORK NANO LITHIUM IRON PHOSPHATE AS ANODE

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102195097 A 20110921	CN20101117480 20100304	JIANGSU HANGHONG POWER SUPPLY CO LTD	H01M10/06	NANO COLLOIDAL SILICA LEAD-ACID BATTERY
CN102169992 A 20110831	CN20111080357 20110331	JIANGSU LENENG BATTERY CO LTD	H01M4/58; H01M4/136; H01M4/1397	LITHIUM FERRIC PHOSPHATE (LIFEPO4) / CARBON NANO TUBE NET COMPOSITE POSITIVE ELECTRODE MATERIAL AND PREPARATION METHOD THEREOF
CN102201577 A 20110928	CN20111095487 20110413	JIANGXI KEHUI NEW ENERGY BATTERY CO LTD	H01M4/62; H01M4/1391	METHOD FOR IMPROVING BATTERY CYCLE STABILITY AND SAFETY AND CORRESPONDING BATTERY
CN102244238 A 20111116	CN20111166724 20110621	JIANHONG LIU	H01M4/1391; H01M4/525	GRAPHENE-LIKE COATED IRON-BASED COMPOUND DOPED CATHODE MATERIAL AND PREPARATION METHOD THEREOF
CN102244233 A 20111116	CN20111128973 20110518	JIANHONG LIU	H01M4/1391	METHOD FOR PREPARING COMPOSITE CATHODE MATERIAL OF GRAPHENE-LIKE DOPED-CLADDED LITHIUM TITANATE
CN102208608 A 20111005	CN20111128949 20110518	JIANHONG LIU	H01M4/139	PREPARATION METHOD OF CARBON- SULFUR COMPOSITE MATERIAL FOR LITHIUM ION BATTERY CARBON CATHODE MATERIAL
CN102169985 A 20110831	CN20111086491 20110407	JIANHONG LIU	H01M4/1393	PREPARATION METHOD OF LITHIUM ION BATTERY CARBON ANODE MATERIAL WITH GRAPHENE-LIKE STRUCTURE
CN102255078 A 20111123	CN20111140383 20110527	JIANMIN DING	H01M4/1397; B82Y40/00	COORDINATED METHOD FOR PREPARING NANOMETER SPHERICAL IRON PHOSPHATE AND THEN USING CARBON FUSION METHOD TO PREPARE NANOMETER SPHERICAL LITHIUM IRON PHOSPHATE
CN102244300 A 20111116	CN20111150131 20110603	JIESHOU HUAYU POWER SUPPLY CO LTD	H01M10/06; H01M4/62	LEAD ACID BATTERY TAKING GRAPHENE AS ADDITIVE

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102185148 A 20110914	CN20111090103 20110401	JINGDEZHEN CERAMIC INST	H01M4/86; B82Y30/00; H01M4/88; H01M4/90	NIO-BASED SOFC (SOLID OXIDE FUEL CELL) COMPOSITE ANODE FILM MATERIAL WITH NANO-SHEET MICROCELLULAR STRUCTURE AND PREPARATION METHOD THEREOF
CN102201599 A 20110928	CN20111091089 20110403	JINGGE SHI; ZHILONG PEI; FEI ZHOU; XUEHAI JIN; JINGSHAN SHI	H01M10/10	THIXOTROPIC NANO-COLLOID ELECTROLYTE USED FOR LEAD-ACID BATTERY OF MINING LOCOMOTIVE
CN202012401U U 20111019	CN20112038705U 20110215	JIU WANG	F02F1/00; F02P5/15; H01M8/06	NANO-CERAMIC HYDROGEN CYLINDER
CN102217124 A 20111012	WO2009US64992 20091118; US20080115815P 20081118; US20090150987P 20090209	JOHNSON CONTROLS TECH CO	H01M4/60	ELECTRICAL POWER STORAGE DEVICES
US2011244322 A1 20111006	KR20080121483 20081202; WO2008KR07447 20081216	KOKAM CO LTD [KR]	H01M4/583; B05D5/12; H01M4/48; H01M4/60; H01M4/66; H01M10/00	CORE-SHELL TYPE ANODE ACTIVE MATERIAL FOR LITHIUM SECONDARY BATTERIES, METHOD FOR PREPARING THE SAME AND LITHIUM SECONDARY BATTERIES COMPRISING THE SAME
KR20110129105 A 20111201	KR20100048541 20100525	KOLON FASHION MATERIAL INC [KR]	D04H1/42; D04H3/16; D04H13/00; H01M2/14	POLYBENZIMIDAZOLE POROUS NANOFIBER WEB AND METHOD FOR MANUFACTURING THE SAME
KR20110129104 A 20111201	KR20100048540 20100525	KOLON FASHION MATERIAL INC [KR]	D04H1/42; D04H3/16; D04H13/00; H01M2/14	POLYIMIDE POROUS NANOFIBER WEB AND METHOD FOR MANUFACTURING THE SAME
KR20110129108 A 20111201	KR20100048544 20100525	KOLON FASHION MATERIAL INC [KR]	D04H1/42; D04H13/00; H01M2/14	POLYIMIDE POROUS NANOFIBER WEB AND METHOD FOR MANUFACTURING THE SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
KR20110129110 A 20111201	KR20100048546 20100525	KOLON FASHION MATERIAL INC [KR]	D04H1/42; D04H3/16; D04H13/00; H01M2/14	POLYIMIDE POROUS NANOFIBER WEB AND METHOD FOR MANUFACTURING THE SAME
KR20110129111 A 20111201	KR20100048547 20100525	KOLON FASHION MATERIAL INC [KR]	D04H1/42; D04H3/16; D04H13/00; H01M2/14	POLYIMIDE POROUS NANOFIBER WEB AND METHOD FOR MANUFACTURING THE SAME
KR20110129113 A 20111201	KR20100048549 20100525	KOLON FASHION MATERIAL INC [KR]	D04H1/42; B01D39/02; D04H13/00; H01M2/14	POLYMER ELECTROLYTE NANOFIBER WEB
KR20110129106 A 20111201	KR20100048542 20100525	KOLON FASHION MATERIAL INC [KR]	D04H1/42; D04H13/00; H01M2/14	POROUS NANOFIBER WEB
KR20110129112 A 20111201	KR20100048548 20100525	KOLON FASHION MATERIAL INC [KR]	D04H1/42; B01D39/02; D04H13/00; H01M2/14	POROUS NANOFIBER WEB
KR20110129109 A 20111201	KR20100048545 20100525	KOLON FASHION MATERIAL INC [KR]	D04H1/42; D01F1/02; D04H13/00; H01M2/14	POROUS NANOFIBER WEB AND METHOD FOR MANUFACTURING THE SAME
KR20110136448 A 20111221	KR20100056473 20100615	KOLON INC [KR]	D04H1/42; D04H13/00; D06M11/46; H01M2/14	POROUS SUPPORT AND METHOD FOR MANUFACTURING THE SAME
KR20110120185 A 20111103	KR20100039471 20100428	KOLON INC [KR]; KOLON FASHION MATERIAL INC [KR]	H01M8/10; B82B3/00; C08J5/22; C08J7/12	POLYMER ELECTROLYTE MEMBRANE FOR FUEL CELL AND METHOD OF MANUFACTURING THE SAME
WO2011162528 A2 20111229	KR20100058575 20100621	KOLON INC [KR]; LEE MOO-SEOK [KR]	D04H1/42; D04H3/16; D04H13/00; H01M2/14	POROUS NANOWEB AND METHOD FOR MANUFACTURING THE SAME
JP2011243344 A 20111201	JP20100112908 20100517	KONICA MINOLTA HOLDINGS INC	H01M4/139; H01M2/16; H01M4/13	METHOD FOR MANUFACTURING ELECTRODE WITH SEPARATOR, ELECTRODE WITH SEPARATOR, AND SECONDARY BATTERY

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
KR20110132804 A 20111209	KR20100052346 20100603	KOREA ADVANCED INST SCI & TECH [KR]	H01M4/90; B01J21/18; H01M8/10	DOPED 2-DIMENSIONAL CARBON MATERIAL FOR OXYGEN REDUCTION AND ALCOHOL TOLERANT PROPERTIES AS A CATHODE OF POLYMER ELECTROLYTE FUEL CELL
KR20110083265 A 20110720	KR20100003410 20100114	KOREA ADVANCED INST SCI & TECH [KR]	H01M4/04; H01M4/50; H01M10/0525	MANGANESE OXIDES BY HYDROTHERMAL METHOD, SPINEL TYPE CATHODE ACTIVE MATERIAL FOR LITHIUM SECONDARY BATTERIES USING THEREBY AND MANUFACTURING PROCESS OF THE SAME
KR20110124458 A 20111117	KR20100043829 20100511	KOREA ADVANCED INST SCI & TECH [KR]	H01M4/90; B01J27/20; B82B3/00; H01M8/10	METAL-PORPHYRINIC CARBON NANOTUBE USED FOR ELECTRODES OF FUEL CELL
KR20110125759 A 20111122	KR20100045297 20100514	KOREA ENERGY RESEARCH INST [KR]	H01M4/92; B01J21/18; B01J23/40; H01M8/10	MEMBRANE ELECTRODE ASSEMBLY(MEA) USING NANO CARBON MATERIALS FOR FUEL CELL AND METHOD FOR THE SAME
KR101093553B B1 20111213	KR20110017032 20110225	KOREA INST GEOSCIENCE & MINERA [KR]	C01G23/00; B01J23/42; H01M4/92; H01M8/02	PREPARATION METHOD FOR NANOPOROUS PT/TIO2 COMPOSITE PARTICLES
AT516248T T 20110715	KR20080087359 20080904	KOREA INST SCI & TECH [KR]	C01B31/02; C01B31/00; H01M10/00	TRANSITION METAL OXIDES/MULTI-WALLED CARBON NANOTUBE NANOCOMPOSITE AND METHOD FOR MANUFACTURING THE SAME
US2011165461 A1 20110707	KR20100000290 20100105	KOREA INST SCI & TECH [KR]	H01M4/48; B05D5/12; C23C14/34; H01G9/155; H01M4/50; H01M4/52; H01M4/54	ELECTRODE INCLUDING NANOCOMPOSITE ACTIVE MATERIAL, METHOD OF PREPARING THE SAME, AND ELECTROCHEMICAL DEVICE INCLUDING THE SAME



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
KR20110090400 A 20110810	KR20100010143 20100203	KOREA INST SCI & TECH [KR]	B82B3/00; B01J23/40; H01M4/92	METHOD FOR PREPARING METAL NANO SIZE PARTICLES, METHOD FOR SYNTHESIZING CARBON SUPPORTED PLATINUM CATALYST AND CARBON SUPPORTED PLATINUM CATALYST SYNTHESIZED THEREBY, FUEL CELL USING THE CATALYST
KR20110078236 A 20110707	KR20090134988 20091230	KOREA INST SCI & TECH [KR]	B82B1/00; B82B3/00; H01M4/36	SELF-SUPPORTED SURFUR-BASED TWO-DIMENSIONAL NANOSTRUCTURED ANODE ACTIVE MATERIALS AND THE METHOD FOR MANUFACTURING THE SAME
KR20110097150 A 20110831	KR20100016826 20100224	KOREA INST SCI & TECH [KR]	C08J9/224; B01D71/26; C08J7/06; H01M2/16	SUPERHYDROPHOBIC SURFACE MATERIAL WITH MICRO AND NANO HYBRID POROUS STRUCTURE AND A FABRICATION METHOD THEREOF
US2011183231 A1 20110728	KR20100008015 20100128	KUMOH NAT INST TECH ACAD COOP [KR]	H01M8/10; B05D5/12; B06B1/00; C08K3/36; H01M8/04; H01M8/22	HIGH MOLECULAR NANOCOMPOSITE MEMBRANE FOR DIRECT METHANOL FUEL CELL, AND MEMBRANE-ELECTRODE ASSEMBLY AND METHANOL FUEL CELL INCLUDING THE SAME
AT519873T T 20110815	JP20050160703 20050531; WO2006JP10932 20060531	KYOCERA CORP [JP]; YOSHIKAWA SUSUMU [JP]	C30B29/62; B82B3/00; C01G9/02; H01G9/058; H01L31/10; H01L33/00; H01M14/00	VERBUND, ENTHALTEND EIN ARRAY VON NADELFÖRMIGEM KRISTALL, HERSTELLUNGSVERFAHREN DAFÜR, PHOTOELEKTRISCHES UMWANDLUNGSELEMENT, LUMINESZENZELEMENT UND KONDENSATOR
US2011244329 A1 20111006	KR20080025689 20080320; WO2009KR01444 20090320	L F MATERIAL CO LTD [KR]	H01M4/54; H01M4/48; H01M4/50; H01M4/52	CATHODE ACTIVE MATERIAL FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY HAVING THE SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US8076034 B1 20111213	US20080233388 20080918; US20070994757P 20070920	L LIVERMORE NAT SECURITY LLC [US]	H01M8/00; B01J2/00; B01J20/00; B01J20/02; B01J20/22; B01J29/04; C01B3/02; C01B31/08	CONFINEMENT OF HYDROGEN AT HIGH PRESSURE IN CARBON NANOTUBES
US2011171534 A1 20110714	US20100657128 20100114	LAMPERT ERNEST PAUL [US]; SIMS STANLEY [US]	H01M2/16	LONG LASTING HIGH CURRENT DENSITY CHARGING & DISCHARGING, TEMPERATURE-RESISTANT BATTERIES AND RELATED METHODS
US2011183202 A1 20110728	KR20100008018 20100128	LEE SO-RA [KR]; KIM JAE- MYUNG [KR]; JOO KYU-NAM [KR]; DO SEAN [KR]; LEE JONG- HEE [KR]; KIM YOUNG-SU [KR]; KIM DEOK-HYUN [KR]; CHUNG GU-HYUN [KR]; KIM BEOM- KWON [KR]; YU YONG-MI [KR]	H01M4/583; H01M4/60	NEGATIVE ELECTRODE ACTIVE MATERIAL CONTAINING NANOMETAL PARTICLES AND SUPER-CONDUCTIVE NANOPARTICLES AND LITHIUM BATTERY COMPRISING THE NEGATIVE ELECTRODE ACTIVE MATERIAL
US2011287315 A1 20111124	KR20080103553 20081022; KR20080103562 20081022; KR20080103569 20081022; WO2009KR06141 20091022	LG CHEMICAL LTD [KR]	H01M4/52; H01M4/525; H01M4/64	CATHODE ACTIVE MATERIAL PROVIDING IMPROVED EFFICIENCY AND ENERGY DENSITY OF ELECTRODE
US2011311875 A1 20111222	WO2008KR06836 20081120; WO2008KR06929 20081124; WO2009KR06846 20091120	LG CHEMICAL LTD [KR]	H01M4/485	ELECTRODE ACTIVE MATERIAL FOR SECONDARY BATTERY AND METHOD FOR PREPARING THE SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011293977 A1 20111201	KR20080130665 20081219; KR20090128286 20091221; WO2009KR07652 20091221	LG CHEMICAL LTD [KR]	H01M2/16; H01M4/00; H01M4/48; H01M4/52; H01M4/56; H01M4/62; H01M4/64; H01M10/02	HIGH-POWER LITHIUM SECONDARY BATTERY
US2011311869 A1 20111222	KR20100016852 20100224; WO2011KR01299 20110224	LG CHEMICAL LTD [KR]	H01M4/50; H01M4/04; H01M4/13; H01M10/04	POSITIVE ELECTRODE ACTIVE MATERIAL WITH HIGH CAPACITY AND LITHIUM SECONDARY BATTERY INCLUDING THE SAME
US2011189586 A1 20110804	US20100658159 20100204	LIU YOU MIN [US]; CAI ZHIWEI [US]	H01M8/10	NANOMETER AND SUB-MICRON LAMINAR STRUCTURE OF LAXSRYMNOZ FOR SOLID OXIDE FUEL CELLS APPLICATION
US2011281204 A1 20111117	US201113105714 20110511; US20100333667P 20100511	LOS ALAMOS NAT SECURITY LLC [US]	H01M4/90; H01M4/88	PREPARATION OF SUPPORTED ELECTROCATALYST COMPRISING MULTIWALLED CARBON NANOTUBES
KR20110075631 A 20110706	KR20090132131 20091228	LOTTE ALUMINIUM CO LTD [KR]; A123 SYSTEMS INC [US]	H01M2/14	SEPARATOR WITH NANO-SCALED PORES AND ENERGY STORAGE SYSTEM INCLUDING THE SAME
WO2011137430 A2 20111103	US20100397453P 20100610; US20100330264P 20100430; US20100353190P 20100609	MASSACHUSETTS INST TECHNOLOGY [US]; LU YI-CHUN; GASTEIGER HUBERT A [US]; SHAO-HORN YANG [US]	H01M12/06	CATALYSTS FOR OXYGEN REDUCTION AND EVOLUTION IN METAL-AIR ELECTROCHEMICAL CELLS
US2011292570 A1 20111201	US201113107278 20110513; US20100334588P 20100514	MAX PLANCK GES ZUR FOERDER WISSE E V [DE]; BASF SE [DE]	H01G9/155; C25B11/02; C25B11/04; H01B1/04; H01M4/02	PROCESS FOR ENCAPSULATING METALS AND METAL OXIDES WITH GRAPHENE AND THE USE OF THESE MATERIALS

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102245504 A 20111116	WO2009EP08879 20091211; EP20080021669 20081212	MAX PLANCK GESELLSCHAFT [DE]	C01B25/45; H01M4/58	PHOSPHATE BASED COMPOUND, USE OF THE COMPOUND IN AN ELECTROCHEMICAL STORAGE DEVICE AND METHODS FOR ITS PREPARATION
WO2011160837 A1 20111229	EP20100006647 20100625	MAX PLANCK GESELLSCHAFT [DE]; SHIN JI-YONG [DE]; JO JONG-HOON [DE]; SAMUELIS DOMINIK [DE]; MAIER JOACHIM [DE]	H01M4/485	AN ELECTRODE MATERIAL FOR A LITHIUM-ION BATTERY AND A METHOD OF MANUFACTURING THE SAME
US2011236724 A1 20110929	NL20081035340 20080424; WO2009NL50218 20090423	MAYER MATEO JOSEF JAQUES [NL]; BUISMAN CEES JAN NICO [NL]; HAMELERS HUBERTUS VICTOR MARIE [NL]; STRIK DAVID PETRUS BONEFATIUS THEODORUS BERNARDUS [NL]	H01M8/16; C25B1/02; C25B3/04; C25B9/00	DEVICE AND METHOD FOR PERFORMING A BIOLOGICALLY CATALYZED ELECTROCHEMICAL REACTION
US2011223521 A1 20110915	US20100845874 20100729; US20080035087 20080221; US20010956256 20010920; US20010311350P 20010813; US20010311360P 20010813; US20000234177P 20000920	MCGRATH JAMES E [US]; HICKNER MICHAEL [US]; WANG FENG [US]; KIM YU-SEUNG [US]	H01M8/10; B01D69/14; B01D71/64; B01D71/68; B01D71/82; C08G73/10; C08G75/23; C08J5/22	ION-CONDUCTING SULFONATED POLYMERIC MATERIALS
JP2011181293 A 20110915	JP20100043630 20100227	MITSUBISHI MATERIALS CORP; MITSUBISHI MATERIALS ELECTRONIC CHEMICALS CO LTD; UNIV AKITA	H01M4/36; C01B25/45; H01M4/58	POSITIVE ELECTRODE ACTIVE MATERIAL FOR LITHIUM-ION BATTERY, AND METHOD OF MANUFACTURING THE SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011183203 A1 20110728	US20110931320 20110127; US20100298893P 20100127	MOLECULAR NANOSYSTEMS INC	H01M4/62; B05D5/12	POLYMER SUPPORTED ELECTRODES
US2011207019 A1 20110825	US200913119937 20090918; US20080192409P 20080918; WO2009US57518 20090918	MUKERJEE SANJEEV [US]	H01M4/92; B01J21/18; B01J23/42; B05D1/38; B05D3/00; B05D5/00; H01M4/88; H01M8/10	PLATINUM ALLOY ELECTROCATALYST WITH ENHANCED RESISTANCE TO ANION POISONING FOR LOW AND MEDIUM TEMPERATURE FUEL CELLS
US2011171538 A1 20110714	US20100980905 20101229; US20100295120P 20100114	NANDI SOUVIK [US]; JAFFEE ALAN MICHAEL [US]; OBERNYER KRISTIN FRANZ GOYA [US]; DIETZ III ALBERT G [US]	H01M10/0562; B32B5/02; D04H13/00; D21H17/64; H01M4/02	GLASS-FIBER CONTAINING COMPOSITE MATERIALS FOR ALKALI METAL-BASED BATTERIES AND METHODS OF MAKING
US2011195293 A1 20110811	US201113018586 20110201; WO2010US58418 20101130; US20090265167P 20091130; US20100353500P 20100610	NANOSCALE COMPONENTS INC	H01M2/18; B05D3/00; B05D3/02; B05D3/04; B05D3/14; B05D5/12; H01G9/035; H01M4/60	METHODS FOR PRODUCING TEXTURED ELECTRODE BASED ENERGY STORAGE DEVICE
AT528811T T 20111015	US20050738100P 20051121; US20060801377P 20060519; WO2006US44883 20061120	NANOSYS INC [US]	H01M4/86; H01M4/88; H01M4/92; H01M8/10	NANOWIRE STRUCTURES COMPRISING CARBON

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011275005 A1 20111110	US200913124790 20091022; US20080108301P 20081024; WO2009US61684 20091022	NANOSYS INC [US]	H01M8/10; B05D5/12; H01M4/92	MEMBRANE ELECTRODE ASSEMBLIES WITH INTERFACIAL LAYER
AU2011211404 A1 20110901	AU20110211404 20110812	NANOSYS INC [US]	H01M4/86; H01M4/88; H01M4/92; H01M8/10	NANOWIRE STRUCTURES COMPRISING CARBON
US2011229795 A1 20110922	US201113149527 20110531; US20080234104 20080919; US20060642241 20061220; US20050295133 20051206; US20050738100P 20051121; US20040634472P 20041209	NANOSYS INC [US]	H01M8/10	NANOWIRE-BASED MEMBRANE ELECTRODE ASSEMBLIES FOR FUEL CELLS
CN102222565 A 20111019	CN20101150386 20100415	NAT CT FOR NANOSCIENCE AND TECHNOLOGY NCNST OF CHINA	H01G9/00; H01G9/042	CARBON-BASED COMPOSITE ELECTRODE MATERIAL AND PREPARATION METHOD THEREOF, AND APPLICATION OF THE CARBON-BASED COMPOSITE ELECTRODE MATERIAL TO SUPER CAPACITOR
CN102255072 A 20111123	CN20101178153 20100517	NAT CT FOR NANOSCIENCE AND TECHNOLOGY NCNST OF CHINA	H01M4/139; H01M4/36	PREPARATION METHOD OF STANNIC OXIDE OR METALLIC TIN AND GRAPHENE LAMELLA COMPOSITE MATERIAL

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
JP2011225416 A 20111110	JP20090125016 20090525; JP20100084753 20100401; JP20100118582 20100524	NAT INST FOR MATERIALS SCIENCE [JP]	C01B3/08; B22F1/00; B22F1/02; B22F9/02	HYDROGEN GENERATING MATERIAL, METHOD FOR PRODUCING SAME, METHOD FOR PRODUCING HYDROGEN, AND APPARATUS FOR PRODUCING HYDROGEN
JP2011180469 A 20110915	JP20100046102 20100303	NAT INST OF ADVANCED IND SCIEN [JP]	G02F1/15; C01C3/11; C01C3/12; H01G9/00; H01M4/58; H01M10/052; H01M10/0565	ELECTROCHEMICAL ELEMENT HAVING PRUSSIAN BLUE TYPE METAL COMPLEX NANOPARTICLE, ELECTROCHROMIC ELEMENT AND SECONDARY BATTERY USING THE SAME
JP2011243324 A 20111201	JP20100112277 20100514	NAT INST OF ADVANCED IND SCIEN [JP]	H01M12/06; H01M4/90; H01M12/08	LITHIUM-AIR CELL UTILIZING CORROSION OF METAL
WO2011149044 A1 20111201	JP20100123182 20100528	NAT INST OF ADVANCED IND SCIEN [JP]; HATA KENJI [JP]; IZADI-NAJAFABADI ALI [JP]	H01G9/058; H01G9/016	ELECTRIC DOUBLE-LAYER CAPACITOR
JP2011241499 A 20111201	JP20100113889 20100518	NAT UNIV YOKOHAMA	D21H13/50; H01L21/28; H01L29/06; H01L29/417; H01L29/423; H01L29/49; H01L29/786; H01L31/04; H01L51/05; H01L51/30; H01L51/40; H01M14/00	GOOD CONTAINING CARBON NANOTUBE
WO2011127218 A2 20111013	US20100321338P 20100406	NDSU RES FOUNDATION [US]; SCHULZ DOUGLAS [US]; HOEY JUSTIN [US]; WU XIANGFA [US]; AKHATOV ISKANDER [US]; BOUDJOUK PHILIP [US]; DAI XULIANG [US]; ANDERSON KENNETH [US]	D01D5/00; D01F1/10; D01F8/18; D02J13/00; H01M4/139	LIQUID SILANE-BASED COMPOSITIONS AND METHODS FOR PRODUCING SILICON- BASED MATERIALS

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
GB2481124 A 20111214	GB20100009519 20100607	NEXEON LTD [GB]	H01M10/0525	AN ADDITIVE FOR LITHIUM ION RECHARGEABLE BATTERY CELLS
CN102208598 A 20111005	CN20111123113 20110512	NINGBO INST MAT TECH & ENG CAS	H01M4/13; H01M4/139; H01M4/66	ELECTRODE PLATE OF GRAPHENE COATING MODIFIED LITHIUM SECONDARY BATTERY AND MANUFACTURING METHOD THEREOF
CN102148368 A 20110810	CN20111045742 20110224	NINGBO UNIVERSITY OF TECHNOLOGY	H01M4/1397; H01M4/58	PREPARATION METHOD OF LITHIUM ION BATTERY ANODE COMPOSITE MATERIAL AND SPECIAL DEVICE THEREOF
JP2011213556 A 20111027	JP20100084632 20100331	NIPPON CHEMICON [JP]; K & W CORP; UNIV TOKYO AGRICULTURE	C01G23/00; B82B1/00; B82B3/00; C01B31/02; H01G9/058; H01M4/36; H01M4/485	LITHIUM TITANATE NANOPARTICLE, COMPOSITE OF LITHIUM TITANATE NANOPARTICLE AND CARBON, METHOD FOR PRODUCING THE COMPOSITE, ELECTRODE MATERIAL COMPRISING THE COMPOSITE, AND ELECTRODE, ELECTROCHEMICAL ELEMENT AND ELECTROCHEMICAL CAPACITOR USING THE ELECTRO
WO2011122047 A1 20111006	JP20100250185 20101108; JP20100106051 20100504; JP20100084644 20100331	NIPPON CHEMICON [JP]; NAOI KATSUHIKO [JP]; NAOI WAKO [JP]; ISHIMOTO SHUICHI [JP]; TAMAMITSU KENJI [JP]	H01M4/50; B01J19/28; C01B25/45; C01B31/02; C01G23/00; C01G45/02; H01G9/058; H01M4/13; H01M4/139; H01M4/36; H01M4/485; H01M4/58; H01M10/0525	COMPOSITE OF METAL OXIDE NANOPARTICLES AND CARBON, METHOD FOR PRODUCING SAID COMPOSITE, ELECTRODE USING SAID COMPOSITE, AND ELECTROCHEMICAL ELEMENT



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011122046 A1 20111006	JP20100084706 20100331; JP20100084705 20100331; JP20100084704 20100331; JP20100084703 20100331; JP20100084632 20100331	NIPPON CHEMICON [JP]; NAOI KATSUHIKO [JP]; NAOI WAKO [JP]; ISHIMOTO SHUICHI [JP]; TAMAMITSU KENJI [JP]	C01G23/00; C01B31/02; H01G9/058; H01M4/36; H01M4/485	LITHIUM TITANATE NANOPARTICLES, COMPOSITE OF LITHIUM TITANATE NANOPARTICLES AND CARBON, METHOD FOR PRODUCING SAID COMPOSITE, ELECTRODE MATERIAL COMPRISING SAID COMPOSITE, ELECTRODE USING SAID ELECTRODE MATERIAL, ELECTROCHEMICAL ELEMENT, AND ELECTROCH
WO2011138866 A1 20111110	JP20100106052 20100504	NIPPON CHEMICON [JP]; NAOI KATSUHIKO [JP]; NAOI WAKO [JP]; ISHIMOTO SHUICHI [JP]; TAMAMITSU KENJI [JP]	C01G23/00; B82B1/00; B82B3/00; C01B31/02; H01G9/058; H01M4/131; H01M4/36; H01M4/485	LITHIUM TITANATE CRYSTAL STRUCTURE, COMPLEX OF LITHIUM TITANATE CRYSTAL STRUCTURE AND CARBON, MANUFACTURING METHOD FOR SAME, ELECTRODE AND ELECTROCHEMICAL ELEMENT USING SAME
US2011229766 A1 20110922	JP20080307848 20081202; WO2009JP69778 20091124	NISSHINBO HOLDINGS INC [JP]	H01M4/583; B01J21/18	CARBON CATALYST, METHOD FOR MANUFACTURING THE CARBON CATALYST, AND ELECTRODE AND BATTERY USING THE CARBON CATALYST
CN102142554 A 20110803	CN20111039005 20110216	NO 63971 TROOPS OF PLA	H01M4/38; B82Y30/00; B82Y40/00; H01M4/139	NANO CARBON SULFUR COMPOSITE MATERIAL WITH NETWORK STRUCTURE AND PREPARATION METHOD OF NANO CARBON COMPOSITE MATERIAL
US2011262828 A1 20111027	JP20070330188 20071221; WO2008US87398 20081218	NODA KAZUKI [JP]; OKADA HIDEYUKI [JP]	H01M4/90; B01J33/00; B05D5/12; H01M4/86; H01M8/10; H01M8/24	ELECTRODE CATALYST DISPERSION AND INK COMPOSITION

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
EP2387805 A1 20111123	WO2010EP50165 20100108; US20090319933 20090113	NOKIA CORP [FI]	H01M4/66; H01M4/04; H01M4/133; H01M4/1393	A PROCESS FOR PRODUCING CARBON NANOSTRUCTURE ON A FLEXIBLE SUBSTRATE, AND ENERGY STORAGE DEVICES COMPRISING FLEXIBLE CARBON NANOSTRUCTURE ELECTRODES
KR20110104553 A 20110922	US20090319968 20090113	NOKIA CORP [FI]	H01M4/04; B82B3/00; H01G9/04; H01M4/66	HIGH EFFICIENCY ENERGY CONVERSION AND STORAGE SYSTEMS USING CARBON NANOSTRUCTURED MATERIALS
WO2011103025 A1 20110825	US201113025137 20110210; US20100306162P 20100219; US201113025138 20110210	NTHDEGREE TECHNOLOGIES WORLDWIDE INC [US]; RAY WILLIAM JOHNSTONE [US]; LOWENTHAL MARK D [US]; SHOTTON NEIL O [US]; CLINTON THOMAS WILLIAM [US]; KAMINS THEODORE I [US]; LOCKETT VERA NICHOLAEVNA [US]	H01G9/058; B05D5/12	MULTILAYER CARBON NANOTUBE CAPACITOR AND METHOD OF AN PRINTABLE COMPOSITIONS FOR MANUFACTURING A MULTILAYER CARBON NANOTUBE CAPACITOR
CN102249210 A 20111123	CN20111132274 20110522	NW INST NON FERROUS METAL RES	C01B25/45; B82Y40/00; H01M4/1397	METHOD FOR PREPARING NANOCRYSTAL LITHIUM IRON PHOSPHATE ANODE MATERIAL THROUGH CO-PRECIPITATION
CN102201275 A 20110928	CN20101136274 20100325	OCEAN S KING LIGHTING TECHNOLOGY CO LTD; OCEANS KING LIGHTING SCIENCE	H01B1/18; H01B13/00; H01G9/042; H01M4/13	LITHIUM SALT AND GRAPHENE COMPOSITE MATERIAL AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF
JP2011233507 A 20111117	JP20100086711 20100405; JP20110037190 20110223	OSAKA GAS CO LTD	H01M14/00; H01L31/04	SUBSTRATE WITH POROUS TITANIUM OXIDE COATING FILM FORMED THEREON

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
JP2011228289 A 20111110	JP20100073944 20100327; JP20110070018 20110328	OSAKA MUNICIPA TECHNICAL RES INST; UNIV OSAKA PREFECTURE; OKUNO CHEM IND CO	H01M4/58; C01G3/12; C01G9/08; C01G19/00; C01G45/00; C01G49/00; C01G53/11; H01M10/0562	ELECTRODE MATERIAL FOR SECONDARY BATTERY AND SECONDARY BATTERY USING THE SAME
WO2011135451 A1 20111103	EE20100000042 20100429	OUE SKELETON TECHNOLOGIES [EE]; LEIS JAAN [EE]; ARULEPP MATI [EE]; PERKSON ANTI [EE]	H01G9/058	COMPOSITE CARBON ELECTRODE FOR ELECTRIC DOUBLE LAYER CAPACITOR
CN102249208 A 20111123	CN20111116152 20110506	OULU ZHU	C01B25/45; B82Y40/00; H01M4/1397	HYDROTHERMAL SYNTHESIS METHOD FOR LITHIUM FERROMANGANESE PHOSPHATE ANODE MATERIAL OF LITHIUM ION BATTERY
MX2011000024 A 20110729	BR2008PI03895 20080703; WO2009BR00191 20090629	OXITENO S A IND E COM [BR]	H01M4/90; H01M4/86; H01M8/12	A METHOD FOR THE PRODUCTIO.
WO2011105021 A1 20110901	JP20100038646 20100224	PANASONIC CORP [JP]; ASARI TAKUMA; KUMAGAI HIRONORI; HAYASHI SHIGEO; HASHIMOTO YASUHIRO; YOSHIKAWA NAOKI; OKADA TAKASHI	C01B31/02; B01J23/745; B82B1/00; B82B3/00; H01G9/058; H01M4/133; H01M4/1393; H01M4/587; H01M4/66; H01M10/0525; H01M10/0566; H01M10/0585; H01M10/0587	SUBSTRATE FOR FORMING CARBON NANOTUBES, CARBON NANOTUBE COMPOSITE, ENERGY DEVICE, METHOD FOR PRODUCING SAME, AND DEVICE INCORPORATING SAME
US2011189540 A1 20110804	JP20080134011 20080522; WO2009JP59190 20090519	PI R & D CO LTD [JP]; MORI POLYMER CO INC [JP]	H01M4/583; H01B1/24	CONDUCTIVE AGENT FOR BATTERY ELECTRODE, ELECTRODE CONTAINING THE SAME, AND BATTERY

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
AT520454T T 20110915	US20010823890 20010330; WO2002US10384 20020401	PICOLITER INC [US]	B01J2/02; B82B3/00; A61K8/02; A61K9/14; B01J2/00; B01J3/00; B01J19/00; B01J19/10; B22F9/24; D06M23/00; H01M4/92	FOCUSED ACOUSTIC ENERGY IN THE GENERATION OF SOLID PARTICLES
US2011223484 A1 20110915	US201113034667 20110224; US20100308104P 20100225	PINON TECHNOLOGIES INC	H01M4/38; H01B1/02; H01L21/02	GROUP IV METAL OR SEMICONDUCTOR NANOWIRE FABRIC
WO2011092283 A1 20110804	EP20100151986 20100128	PRAYON [BE]; COMMISSARIAT ENERGIE ATOMIQUE [FR]; PATOUX SEBASTIEN [FR]; MARTINET SEBASTIEN [FR]; LAUNOIS SEBASTIEN [FR]; GOURGUE ALAIN [BE]; GERMEAU ALAIN [BE]	H01M4/58; C01B25/37; H01M4/04; H01M4/139; H01M4/62; H01M10/0525	LITHIUM BATTERIES CONTAINING LITHIUM- BEARING IRON PHOSPHATE AND CARBON
KR20110078573 A 20110707	KR20090135421 20091231	PUSAN NAT UNIV IND COOP FOUND [KR]	H01M4/96; H01M8/10	FUEL CELL ELECTRODE AND METHOD OF FABRICATING THEREOF
CN102230257 A 20111102	CN20111147715 20110530	QINGDAO INST OF BIOENERGY AND BIOPROCESS TECHNOLOGY CHINESE ACADEMY OF SCIENCES	D04H1/72; D01D5/00; D01D5/30; D01F8/10; D01F8/16; H01M2/16	COAXIAL COMPOUND NANOMETRE FIBRE FILM AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF
CN102251307 A 20111123	CN20111147725 20110530	QINGDAO INST OF BIOENERGY AND BIOPROCESS TECHNOLOGY CHINESE ACADEMY OF SCIENCES	D01F6/74; C08G73/10; D01D5/00; H01M2/16	POLYIMIDE-BASE NANO FIBROUS MEMBRANE, AND PREPARATION METHOD AND APPLICATION THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011262840 A1 20111027	US201113174220 20110630; US20100717830 20100304; US20070745957 20070508	QUANTUMSPHERE INC [US]	C25B1/02; C25B1/00; C25B3/00; H01M8/08	ELECTRO-CATALYTIC RECHARGING COMPOSITION
US2011192717 A1 20110811	US201113089136 20110418; US20070716375 20070309	QUANTUMSPHERE INC [US]	C25B1/06; H01M4/36	HIGH RATE ELECTROCHEMICAL DEVICE
US2011300471 A1 20111208	US201113212032 20110817; US20070868152 20071005	QUANTUMSPHERE INC [US]	C25B11/06; B05D5/12; C25B11/04; C25B11/08; H01M4/86; H01M4/88; H01M4/90	NANOPARTICLE COATED ELECTRODE AND METHOD OF MANUFACTURE
US2011212386 A1 20110901	US20090998586 20091106; US20080193240P 20081107; WO2009CA01609 20091106	ROLLER JUSTIN [CA]; MARIC RADENKA [CA]; FATIH KHALID [CA]; NEAGU ROBERTO [CA]	H01M4/92; B01J23/42; B01J27/02; B01J37/02; B01J37/08; B01J37/12	CATALYTIC MATERIALS FOR FUEL CELL ELECTRODE AND METHOD FOR THEIR PRODUCTION
US2011236729 A1 20110929	FR20080006821 20081205; FR20090000267 20090122; WO2009FR01382 20091204	ROUSTAEI ALEX HR [FR]	H01M16/00; B01J19/00; H01M8/06	HYDROGEN CELLS OR MICROCELLS WITH A HYDROGEN GENERATOR
KR20110124728 A 20111117	KR20100043798 20100511	ROUTE JJ CO LTD [KR]	H01M4/583; H01M4/38; H01M4/48; H01M10/052	ACTIVE MATERIAL FOR SECONDARY LITHIUM BATTERY, MANUFACTURING METHOD THEREOF, AND SECONDARY LITHIUM BATTERY COMPRISING THE SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
KR20110134852 A 20111215	KR20100054224 20100609	ROUTE JJ CO LTD [KR]	H01M4/505; H01M4/485; H01M4/525; H01M4/583	CATHODE ACTIVE MATERIAL FOR LITHIUM SECONDARY BATTERY, MANUFACTURING METHOD FOR THE SAME AND LITHIUM SECONDARY BATTERY COMPRISING THE SAME
US2011293991 A1 20111201	US201113027161 20110214; KR20100050486 20100528; US20100950706 20101119	RYU JAE-YUL [KR]; CHOI WAN-UK [KR]; KIM JOON-SUP [KR]; LEE JEA-WOAN [KR]; MOON JIN-HEE [KR]; BACK CHANG-KEUN [KR]; KIM YOUNG-UGK [KR]; PARK SEUNG-HEE [US]	H01M2/16; H01M4/36; H01M10/02	RECHARGEABLE LITHIUM BATTERY
US2011171565 A1 20110714	EP20060404002 20060613	SABANCI UNIVERSITESI AT ORHANLI; TUBITAK TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	H01M4/96; B01J21/18; B01J35/06; B01J37/08; B01J37/34	CARBON NANOFIBERS CONTAINING CATALYST NANOPARTICLES
KR20110125807 A 20111122	KR20100045381 20100514	SAMHWA CAPACITOR CO LTD [KR]	H01M4/48; H01G9/042; H01M4/583; H01M10/0525	ACTIVE MATERIAL FOR ANODE, METHOD FOR MANUFACTURING THE SAME, AND SECONDARY BATTERY AND SUPER CAPACITOR INCLUDING THE SAME
KR20110125808 A 20111122	KR20100045382 20100514	SAMHWA CAPACITOR CO LTD [KR]	H01M4/583; H01G9/042; H01M4/485; H01M10/0525	ACTIVE MATERIAL FOR ANODE, METHOD FOR MANUFACTURING THE SAME, AND SECONDARY BATTERY AND SUPER CAPACITOR INCLUDING THE SAME
KR20110126330 A 20111123	KR20100045955 20100517	SAMHWA CAPACITOR CO LTD [KR]	H01M4/485; H01G9/058; H01M4/38; H01M10/0525	ACTIVE MATERIAL FOR ANODE, METHOD FOR MANUFACTURING THE SAME, AND SECONDARY BATTERY AND SUPER CAPACITOR INCLUDING THE SAME
KR20110126802 A 20111124	KR20100046262 20100518	SAMHWA CAPACITOR CO LTD [KR]	H01G9/058; H01G9/042	ACTIVE MATERIAL FOR ANODE, METHOD FOR MANUFACTURING THE SAME, AND SECONDARY BATTERY AND SUPER CAPACITOR INCLUDING THE SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011299223 A1 20111208	KR20100052680 20100604	SAMHWA CAPACITOR CO LTD [KR]	H01G9/155	HYBRID SUPER CAPACITOR USING COMPOSITE ELECTRODE
US2011294038 A1 20111201	KR20100049116 20100526	SAMSUNG ELECTRONICS CO LTD [KR]	H01M8/10; H01M4/38; H01M8/00	ELECTRODE CATALYST FOR FUEL CELLS, METHOD OF PREPARING THE SAME, AND FUEL CELL INCLUDING ELECTRODE CONTAINING THE ELECTRODE CATALYST
KR20110079472 A 20110707	KR20090136217 20091231	SAMSUNG ELECTRONICS CO LTD [KR]; IU CF HYU [KR]	H01M4/134; B82B3/00; H01M10/0525	ANODE COMPRISING METAL NANOTUBE, LITHIUM BATTERY COMPRISING ANODE, AND PREPARATION METHOD THEREOF
KR20110083371 A 20110720	KR20100003562 20100114	SAMSUNG ELECTRONICS CO LTD [KR]; IU CF HYU [KR]; SAMSUNG SDI CO LTD [KR]	H01M8/12; B82B3/00	SOLID OXIDE FUEL CELL CONTAINING COMPOSITE NANOTUBE AND PREPARATION METHOD THEREOF
KR20110118560 A 20111031	KR20100038181 20100423; KR20100080000 20100818	SAMSUNG ELECTRONICS CO LTD [KR]; UNIV LELAND STANFORD JUNIOR [US]	H01M8/12; B82B3/00; H01M8/02	PROTON CONDUCTING CERAMIC FUEL CELLS HAVING NANO-GRAIN YSZ AS PROTECTIVE LAYER OF ELECTROLYTE LAYER
KR20110129630 A 20111202	KR20100049119 20100526	SAMSUNG ELECTRONICS CO LTD [KR]; UNIV SONGKYUNKWAN FOUND [KR]	H01G9/058; H01G9/042	POROUS NANOCOMPOSITE FIBER ELECTRODE FOR SUPERCAPACITOR AND METHOD FOR MANUFACTURING THE SAME
KR20110121273 A 20111107	KR20100040798 20100430	SAMSUNG FINE CHEMICALS CO LTD [KR]	C01G45/00; B01J19/28; B01J19/30; H01M4/505	METHOD OF PREPARING LITHIUM MANGANESE OXIDE
KR20110121274 A 20111107	KR20100040799 20100430	SAMSUNG FINE CHEMICALS CO LTD [KR]	C01G53/00; B01J19/28; C01G45/00; H01M4/505	METHOD OF PREPARING LITHIUM TRANSITION METAL OXIDE
KR20110121272 A 20111107	KR20100040797 20100430	SAMSUNG FINE CHEMICALS CO LTD [KR]	C01B25/30; B01J19/28; C01B25/37; H01M4/58	METHOD OF PREPARING LITHIUM TRANSITION METAL PHOSPHATE
KR20110122510 A 20111110	KR20100042064 20100504	SAMSUNG SDI CO LTD [KR]	C01G23/00; H01M4/485; H01M10/0525	LITHIUM TITANATE AGGREGATE AND MANUFACTURING METHOD THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011281205 A1 20111117	US20100944706 20101111; KR20040089211 20041104; US20050265177 20051103	SAMSUNG SDI CO LTD [KR]	H01M4/66; B01J32/00	MESOPOROUS CARBON COMPOSITE CONTAINING CARBON NANOTUBE
US2011244371 A1 20111006	KR20030044540 20030702	SAMSUNG SDI CO LTD [KR]	H01M4/88; H01M4/92; B32B3/26; C08J5/22; C08J9/00; C23C14/14; C23C14/35; H01M2/14; H01M4/86; H01M4/90; H01M8/02; H01M8/10	MICROPOROUS THIN FILM COMPRISING NANOPARTICLES, METHOD OF FORMING THE SAME, AND FUEL CELL COMPRISING THE SAME
CN102237522 A 20111109	KR20100042063 20100504	SAMSUNG SDI CO LTD [KR]	H01M4/38; H01M10/052	NEGATIVE ACTIVE MATERIAL AND LITHIUM BATTERY
CN102244251 A 20111116	US20100345014P 20100514; US201113100273 20110503	SAMSUNG SDI CO LTD [KR]	H01M4/38; H01M4/133; H01M4/1393; H01M10/0525	NEGATIVE ACTIVE MATERIAL FOR RECHARGEABLE LITHIUM BATTERY AND RECHARGEABLE LITHIUM BATTERY INCLUDING SAME
US2011274973 A1 20111110	KR20100042556 20100506	SAMSUNG SDI CO LTD [KR]	H01M4/48; H01M4/485; H01M4/505; H01M4/52; H01M4/525; H01M4/583	POSITIVE ACTIVE MATERIAL FOR RECHARGEABLE LITHIUM BATTERY AND RECHARGEABLE LITHIUM BATTERY INCLUDING SAME
CN102148375 A 20110810	KR20100012020 20100209	SAMSUNG SDI CO LTD [KR]	H01M4/583; H01M4/133; H01M10/052	SECONDARY PARTICLE AND LITHIUM BATTERY INCLUDING SECONDARY PARTICLE
US2011269022 A1 20111103	JP20100103832 20100428; JP20100104027 20100428; JP20100104082 20100428	SEMICONDUCTOR ENERGY LAB [JP]	H01M4/485; H01M4/26; H01M4/505; H01M4/525; H01M4/58; H01M4/583; H01M4/62; H01M10/04	POSITIVE ELECTRODE ACTIVE MATERIAL OF POWER STORAGE DEVICE, POWER STORAGE DEVICE, ELECTRICALLY PROPELLED VEHICLE, AND METHOD FOR MANUFACTURING POWER STORAGE DEVICE



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011212363 A1 20110901	JP20100043562 20100226	SEMICONDUCTOR ENERGY LAB [JP]	H01M10/26; H01G9/00; H01G9/042; H01M4/26; H01M4/48; H01M4/505	POWER STORAGE SYSTEM AND MANUFACTURING METHOD THEREFOR AND SECONDARY BATTERY AND CAPACITOR
US2011281157 A1 20111117	US201113189802 20110725; US20080015839 20080117	SEYMOUR FRASER W [US]	H01M4/485; B05D5/12; H01B1/24; H01G9/00; H01M4/04; H01M4/50; H01M4/52; H01M4/66; H01M10/02	ELECTRODE, RELATED MATERIAL, PROCESS FOR PRODUCTION, AND USE THEREOF
US2011281174 A1 20111117	US201113189794 20110725; US20080015839 20080117	SEYMOUR FRASER W [US]	H01M10/0565; B05D5/12; B32B3/26; H01G9/00; H01M10/0566	MONOLITHIC ELECTRODE, RELATED MATERIAL, PROCESS FOR PRODUCTION, AND USE THEREOF
US2011281176 A1 20111117	US201113190006 20110725; US20080015839 20080117	SEYMOUR FRASER W [US]	H01M10/0562; B05D3/02; B05D3/06; B05D3/12; B05D5/12; H01B1/18; H01G9/00	NANOSCALE INTERCALATION MATERIALS ON CARBON POWDER, PROCESS FOR PRODUCTION, AND USE THEREOF
CN102130337 A 20110720	CN20111008620 20110110	SHANDONG SACRED SUN POWER SOURCES CO LTD	H01M4/62	HIGH-TEMPERATURE CYCLIC TYPE NEGATIVE POLE ACTIVE SUBSTANCE OF LEAD-ACID BATTERY
CN102275999 A 20111214	CN20111140493 20110527	Shandong University	C01G51/00; B82Y40/00; H01M4/1391; H01M4/52	NETWORK COBALT FERRITE FOR ANODE MATERIAL FOR LITHIUM ION BATTERY AND USE THEREOF
CN102117905 A 20110706	CN20091238951 20091230	SHANGHAI BYD CO LTD	H01M2/16; H01M10/0525	COMPOSITE DIAPHRAGM, PREPARATION METHOD AND BATTERY THEREOF
CN102142542 A 20110803	CN20101106207 20100129	SHANGHAI BYD CO LTD	H01M4/139; H01M4/62	METHOD FOR PREPARING ELECTRODE

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102208626 A 20111005	CN20111117532 20110506	SHANGHAI INST CERAMICS	H01M4/1397	METHOD FOR QUICKLY PREPARING GRAPHENE COMPOSITE LIFEPO4 ANODE MATERIAL BY ADOPTING MICROWAVE METHOD
CN102117702 A 20110706	CN20101618576 20101231	SHANGHAI LIANFU NEW ENERGY SOURCES TECHNOLOGY CO LTD	H01G9/04; H01G9/20; H01L51/44; H01L51/48; H01M14/00	METHOD FOR PREPARING PHOTOANODE IN DYE-SENSITIZED SOLAR CELL IN STRONG
US2011275010 A1 20111110	US201113101283 20110505; US20100331431P 20100505	SHAO MINHUA [US]	H01M4/92	CATALYTIC MATERIAL
CN102195037 A 20110921	CN20101120764 20100305	SHAobo ZHANG; ZESEN ZHANG; HONGTAO ZHANG	H01M4/1393; C01B31/04; C01B31/36; H01M4/133; H01M4/38; H01M4/583	METHOD FOR PREPARING NANOCRYSTALLINE SILICON CARBIDE/AMORPHOUS SILICON CARBIDE/GRAPHITE COMPOSITE ANODE MATERIAL
CN102195031 A 20110921	CN20101120782 20100305	SHAobo ZHANG; ZESEN ZHANG; HONGTAO ZHANG	H01M4/133; H01M4/1393	METHOD FOR PREPARING NANO-WIRE SILICON CARBIDE/GRAPHITE COMPOSITE CATHODE MATERIALS OF LITHIUM-ION BATTERIES AT HIGH TEMPERATURE
CN102208602 A 20111005	CN20111109725 20110429	SHAOHUA LUO	H01M4/136; H01M4/1397	LITHIUM MANGANESE SILICATE/NANOMETER OXIDE COMPOSITE ANODE MATERIAL AND PREPARATION METHOD THEREOF
US2011275011 A1 20111110	US200913124800 20091022; US20080108304P 20081024; WO2009US61686 20091022	SHARP KK [JP]; NANOSYS INC [US]	H01M4/92; B01J21/06; B01J21/18; B01J23/46; B01J23/62; B01J27/22; B01J27/224; B01J27/24	ELECTROCHEMICAL CATALYSTS FOR FUEL CELLS

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102234101 A 20111109	CN20101159335 20100426	SHENZHEN BAK BATTERY CO LTD; BAK INTERNAT TIANJIN CO LTD; HUBEI YANGUANG ENERGY TECHNOLOGY CO LTD	B82B3/00; B82B1/00; H01M4/136	MICRON NANO STRUCTURE $\text{Li}_3\text{V}_2(\text{PO}_4)_3/\text{C}$ COMPOUND AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF
CN102142545 A 20110803	CN20111048145 20110228	SHENZHEN HAOPENG TECHNOLOGY CO LTD	H01M4/24; H01M4/28; H01M4/66	SECONDARY BATTERY ANODE PIECE AND PREPARATION METHOD THEREOF
CN102250269 A 20111123	CN20101531037 20101104	SHIDA GENG	C08F120/06; C08K3/16; C08K3/24; C08K3/28; C08K5/098; C08L33/02; H01M10/0565	METHOD FOR PREPARING POLY(LITHIUM ACRYLATE) AND METHOD FOR PREPARING SOLID ELECTROLYTE MEMBRANE BY MIXING POLY(LITHIUM ACRYLATE) AND LITHIUM SALT
CN102255074 A 20111123	CN20111096054 20110418	SHIDA GENG	H01M4/139	NOVEL LITHIUM ION BATTERY ANODE CATHODE PARTICLE ALLOY METAL CLADDING METHOD
CN102255081 A 20111123	CN20101531031 20101104	SHIDA GENG	H01M4/48; H01M4/139; H01M4/38; H01M4/58; H01M4/62	POLE PIECE MATERIAL OF LITHIUM ION BATTERY POSITIVE ELECTRODE AND NEGATIVE ELECTRODE, AND PROCESSING METHOD THEREOF
US2011244333 A1 20111006	JP20100086914 20100405	SHINETSU CHEMICAL CO [JP]	H01M4/583; B05D5/12	NEGATIVE ELECTRODE MATERIAL FOR SECONDARY BATTERY WITH NON-AQUEOUS ELECTROLYTE, METHOD FOR MANUFACTURING NEGATIVE ELECTRODE MATERIAL FOR SECONDARY BATTERY WITH NON-AQUEOUS ELECTROLYTE, AND LITHIUM ION SECONDARY BATTERY

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011269016 A1 20111103	US201113180608 20110712; JP20050194672 20050704; US20080994520 20080103; WO2006JP313630 20060703; US20050697960P 20050712	SHOWA DENKO KK [JP]	H01M4/583; H01B1/24; H01M4/04; H01M4/139; H01M4/58; H01M4/587; H01M4/60; H01M10/0569	METHOD FOR PRODUCING ANODE FOR LITHIUM SECONDARY BATTERY AND ANODE COMPOSITION, AND LITHIUM SECONDARY BATTERY
US2011262812 A1 20111027	KR20080039833 20080429; WO2009KR02205 20090428	SHOWA DENKO KK [JP]; LS MITRON LTD [KR]	H01M4/583; H01B1/04; H01M4/58	NEGATIVE ELECTRODE ACTIVE MATERIAL FOR LITHIUM SECONDARY BATTERY, PREPARATION METHOD OF THE SAME, AND LITHIUM SECONDARY BATTERY CONTAINING THE SAME
US2011193014 A1 20110811	US201113089588 20110419; JP20040000254 20040105; US20070585205 20070523; WO2004JP19835 20041228; US20040534989P 20040109	SHOWA DENKO KK [JP]; ZEON CORP [JP]	H01M4/38; H01M4/66; H01M4/02; H01M4/04; H01M4/06; H01M4/58; H01M4/62; H01M6/16; H01M10/40	NEGATIVE ELECTRODE MATERIAL FOR LITHIUM BATTERY, AND LITHIUM BATTERY
KR20110107211 A 20110930	KR20100026438 20100324	SNU R&AMP DB FOUNDATION [KR]	H01M4/485; B82B3/00; D01F9/08; H01M10/0525	PREPARATION METHOD OF LI4Ti5O12 NANOFIBERS WITH FAST RECHARGEABLE CHARACTERISTICS, AND LITHIUM ION BATTERIES THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011305955 A1 20111215	KR20100055742 20100613; KR20110032067 20110407	SONG YU-MI [KR]; PARK DO-HYUNG [KR]; KWON SEON-YOUNG [KR]; KIM MIN-HAN [KR]; KIM JI-HYUN [KR]; KIM KYOUNG-HYUN [KR]	H01M4/52; H01M4/02; H01M4/88	POSITIVE ACTIVE MATERIAL FOR RECHARGEABLE LITHIUM BATTERY, METHOD OF PREPARING THE SAME, AND RECHARGEABLE LITHIUM BATTERY INCLUDING THE SAME
JP2011259545 A 20111222	JP20100129730 20100607	SONY CORP [JP]	H02J7/02; H01M2/10; H01M10/42	BATTERY SYSTEM
JP2011151279 A 20110804	JP20100012768 20100125	SONY CORP [JP]	H01G9/016; H01G9/058; H01M4/02; H01M4/13; H01M4/66; H01M4/78	COMPOSITE ELECTRODE, AND ELECTRONIC DEVICE USING THE SAME
US2011318614 A1 20111229	JP20090037309 20090220; WO2010JP51819 20100208	SONY CORP [JP]	H01M10/02; H01M10/05; H01M10/056	ELECTROLYTE, BATTERY USING SAME, AND METHOD OF USING SAME, AND METHOD FOR PRODUCING ELECTROLYTE
CN102254705 A 20111123	JP20100111242 20100513	SONY CORP [JP]	H01G9/042; H01G9/20; H01L51/42; H01L51/44; H01L51/48; H01M14/00	METHOD FOR PRODUCTION OF A TITANIUM DIOXIDE COMPOSITE AND PHOTOELECTRIC CONVERSION DEVICE INCORPORATED WITH THE SAME
US2011269010 A1 20111103	JP20090271632 20091130	SONY CORP [JP]	H01M2/16; B05D5/00	SEPARATOR, BATTERY USING THE SAME, METHOD FOR PRODUCING SEPARATOR, MICROPOROUS MEMBRANE, AND METHOD FOR PRODUCING A MICROPOROUS MEMBRANE
US2011262837 A1 20111027	US201113168630 20110624; US20070736800 20070418; US20060792758P 20060418	SOUTHWEST RES INST [US]	H01M8/10; B01J21/18; B01J27/04; B01J27/06; B01J35/10; C01C1/04; C07C5/02; C07C5/10; C08F4/70; C08F38/02	TWO-DIMENSIONAL COMPOSITE PARTICLE ADAPTED FOR USE AS A CATALYST AND METHOD OF MAKING SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
EP2386339 A1 20111116	EP20070727130 20070320; DE200610015538 20060331	STARCK H C GMBH [DE]	B01D21/02; B01D9/00; B01D21/08; B82Y30/00; C01G1/00; C01G51/04; C01G53/00; H01M4/04; H01M4/52; H01M4/525; H01M4/90	METHOD FOR PRODUCING POWDER NI, CO ALLOY HYDROXIDES AND USE OF SAME
JP2011134534 A 20110707	JP20090291781 20091224	SUMITOMO BAKELITE CO	H01M4/587; C01B31/02; H01M4/36; H01M4/38	CARBON MATERIAL FOR LITHIUM SECONDARY BATTERY NEGATIVE ELECTRODE, LITHIUM SECONDARY BATTERY NEGATIVE ELECTRODE, AND LITHIUM SECONDARY BATTERY
WO2011129215 A1 20111020	JP20100095236 20100416	SUMITOMO ELECTRIC INDUSTRIES [JP]; MAEDA SHUHEI [JP]; SUGAWARA JUN [JP]; HAYAMI HIROSHI [JP]	H01M8/18; H01M8/02	BIPOLAR PLATE FOR REDOX FLOW BATTERY
JP2011190148 A 20110929	JP20100057985 20100315	SUMITOMO OSAKA CEMENT CO LTD	C01G25/00; C01G53/00; C04B35/00; C04B35/48; H01M4/86; H01M4/88; H01M8/12	COMPOSITE CERAMIC POWDER AND METHOD FOR PRODUCING THE SAME, AND SOLID OXIDE FUEL CELL
JP2011190149 A 20110929	JP20100057986 20100315	SUMITOMO OSAKA CEMENT CO LTD	C01G53/00; C01G25/00; C01G45/00; C04B35/50; C04B35/626; H01M4/86; H01M4/88; H01M8/12	COMPOSITE CERAMIC POWDER AND METHOD FOR PRODUCING THE SAME, AND SOLID OXIDE FUEL CELL
CN102173406 A 20110907	CN20101604320 20101224	SUZHOU INST NANO TECH & NANO B	C01B31/02; B82Y40/00; C01B31/04	PREPARATION METHOD FOR CARBON NANO TUBE OR GRAPHENE EXTRA-THIN FILM
KR20110086160 A 20110727	US20050717504P 20050915	SWEET POWER INC [CA]	H01M8/16; H01M8/02	MICROBIAL FUEL CELL WITH FLEXIBLE SUBSTRATE AND MICRO-PILLAR STRUCTURE

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011200917 A1 20110818	JP20080272018 20081022; WO2009JP67999 20091019	TAKAHASHI HIROAKI [JP]; HORIUCHI YOSUKE [JP]; TERADA TOMOAKI [JP]; NAGATA TAKAHIRO [JP]; TABATA TOSHIHARU [JP]; KATAOKA MIKIHIRO [JP]	H01M4/96	ELECTRODE CATALYST FOR FUEL CELL
US2011311868 A1 20111222	JP20100139833 20100618; JP20100139834 20100618; JP20100139836 20100618; JP20100139838 20100618	TDK CORP [JP]	H01M4/48; H01M4/64; H01M10/00	ACTIVE MATERIAL, ELECTRODE CONTAINING SAME, LITHIUM-ION SECONDARY BATTERY WITH THE ELECTRODE, AND METHOD OF MANUFACTURING ACTIVE MATERIAL
EP2373579 A2 20111012	WO2009US67166 20091208; US20080193582P 20081208	TISOL LLC [US]	C01B31/00; C01B31/02; H01M4/133; H01M10/00; H01M10/52	MULTICOMPONENT NANOPARTICLE MATERIALS AND PROCESS AND APPARATUS THEREFOR
JP2011192926 A 20110929	JP20100059762 20100316	TOKUYAMA CORP	H01G9/058; C01B31/02	ELECTRODE ACTIVE MATERIAL FOR ELECTRIC DOUBLE-LAYER CAPACITOR
CA2772173 A1 20111020	JP20100091874 20100413; WO2011B00816 20110413	TOYOTA MOTOR CO LTD [JP]	H01M8/10; H01M4/88	MEMBRANE ELECTRODE ASSEMBLY, METHOD OF MANUFACTURE THEREOF, AND FUEL CELL
WO2011125195 A1 20111013	WO2010JP56333 20100407	TOYOTA MOTOR CO LTD [JP]; ARAI TATSUYA [JP]; TAKEHIRO NAOKI [JP]; IIO ATSUO [JP]; KIMURA HIROKO [JP]	C23C28/02; C23C18/31; C25D5/00; H01M4/88; H01M4/90	CORE-SHELL METAL NANOPARTICLES, AND METHOD FOR PRODUCING CORE- SHELL METAL NANOPARTICLES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011125196 A1 20111013	WO2010JP56334 20100407	TOYOTA MOTOR CO LTD [JP]; ARAI TATSUYA [JP]; TAKEHIRO NAOKI [JP]; IIO ATSUO [JP]; SEKIZAWA KOSHI [JP]; KIMURA HIROKO [JP]	H01M4/86; H01M8/10	FUEL CELL
WO2011128760 A2 20111020	JP20100091928 20100413	TOYOTA MOTOR CO LTD [JP]; HASEGAWA SHIGEKI [JP]; SHINOZAKI YOSHIHIRO [JP]; IMANISHI MASAHIRO [JP]; SANO SEIJI [JP]	H01M4/86; H01M4/88; H01M8/10	METHOD OF MANUFACTURING FUEL CELL
WO2011125197 A1 20111013	WO2010JP56342 20100407	TOYOTA MOTOR CO LTD [JP]; KIMURA HIROKO [JP]; TAKEHIRO NAOKI [JP]; SEKIZAWA KOSHI [JP]; IIO ATSUO [JP]; ARAI TATSUYA [JP]	C23C28/02; C23C18/31; C25D5/00; H01M4/88; H01M4/90	CORE-SHELL TYPE METAL NANOPARTICLES AND METHOD FOR MANUFACTURING THE SAME
US2011195315 A1 20110811	JP20100026451 20100209	TOYOTA MOTOR CO LTD [JP]; NAT INST FOR MATERIALS SCIENCE [JP]	H01M10/0562; H01M10/056	SOLID BATTERY
WO2011086457 A2 20110721	JP20100006903 20100115	TOYOTA MOTOR CO LTD [JP]; YOSHIDA SATOSHI [JP]; KUBO HIROKI [JP]; IWASAKI MASAHIRO [JP]	H01M4/36	METHOD FOR MANUFACTURING COMPOSITE POSITIVE ELECTRODE ACTIVE MATERIAL
JP2011187414 A 20110922	JP20100054462 20100311	TOYOTA MOTOR CORP [JP]	H01M8/02; H01M4/96	MANUFACTURING METHOD FOR MEMBRANE-ELECTRODE ASSEMBLY
JP2011146337 A 20110728	JP20100008108 20100118	TOYOTA MOTOR CORP [JP]	H01M4/96; H01M4/88; H01M8/02	MEMBRANE ELECTRODE ASSEMBLY AND METHOD FOR MANUFACTURING THE SAME
JP2011222444 A 20111104	JP20100093178 20100414	TOYOTA MOTOR CORP [JP]	H01M8/02; H01M4/88	METHOD FOR MANUFACTURING MEMBRANE ELECTRODE ASSEMBLY



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
JP2011144083 A 20110728	JP20100007083 20100115	TOYOTA MOTOR CORP [JP]; TOYOTA CENTRAL RES & DEV	C01F17/00; B01J23/10; B01J37/04; C01F7/02; H01M4/88	METHOD FOR MANUFACTURING SINGLE-NANOPARTICLE-SUPPORTING COMPOUND, SINGLE-NANOPARTICLE-SUPPORTING COMPOUND OBTAINED BY THE METHOD
JP2011148673 A 20110804	JP20090294784 20091225; JP20100044276 20100301	TOYOTA MOTOR CORP [JP]; UNIV CHIBA	C01B31/02; H01M4/96	METHOD FOR PRODUCING CARBON NANOTUBE AND METHOD FOR PRODUCING ELECTRODE FOR FUEL CELL
KR20110112358 A 20111012	US20060463394 20060809	TOYOTA MOTOR ENGINEERING & AMP MFG NORTH AMERICA INC [US]; TOYOTA MOTOR CORP [JP]	H01M4/38; H01M4/134; H01M4/62; H01M10/052; H01M10/0525; H01M10/36	HIGH PERFORMANCE ANODE MATERIAL FOR LITHIUM-ION BATTERY
US2011245068 A1 20111006	US20100754323 20100405	UCHICAGO ARGONNE LLC	H01M4/92; B01J23/42; B01J23/52; B01J23/745	HIGHLY DURABLE NANOSCALE ELECTROCATALYST BASED ON CORE SHELL PARTICLES
RU2428769 C1 20110910	RU20100113899 20100408	UCHREZH D ENIE ROSSIJSKOJ AKADEMII NAUK INST KATALIZA IM G K BORESKOVA SIB OTDEL RAN [RU]	B01J21/18; B01J23/42; B01J23/44; B01J23/56; B01J37/02; B82B3/00; H01M4/52	PREPARATION METHOD OF BIMETALLIC CATALYST (VERSIONS) AND ITS USE FOR FUEL ELEMENTS
AT520164T T 20110815	EP20070024040 20071212; US20070006044P 20071217; WO2008EP10489 20081211	UMICORE NV [BE]	H01M4/52; H01M4/48; H01M4/485; H01M4/50; H01M4/505; H01M4/525	HOMOGENEOUS NANOPARTICLE CORE DOPING OF CATHODE MATERIAL PRECURSORS

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011138994 A1 20111110	KR20100043132 20100507	UNIST ACADEMY INDUSTRY RES CORP [KR]; PARK SOOJIN [KR]; BANG BYOUNGMAN [KR]; LEE JUNG-PIL [KR]; SONG HYUN-KON [KR]; CHO JAEPHIL [KR]	B82B3/00; H01M10/04; H01M10/052	METHOD FOR FORMING A SILICON NANOWIRE, AND METHOD FOR MANUFACTURING A LITHIUM SECONDARY BATTERY USING SAME
WO2011142494 A1 20111117	KR20100044582 20100512	UNIST ACADEMY INDUSTRY RES CORP [KR]; PARK SOOJIN [KR]; LEE JUNGIN [KR]; SONG HYUN-KON [KR]; CHO JAEPHIL [KR]	H01M4/48; B82B3/00; C01G3/02; H01M10/0525	METHOD FOR PRODUCING NANOMATERIAL, AND METHOD FOR MANUFACTURING A SECONDARY BATTERY USING SAME
JP2011168935 A 20110901	JP20100036064 20100222	UNITIKA LTD	D04H1/42; D04H1/72; H01M2/16	NONWOVEN FABRIC AND SEPARATOR FOR SECONDARY BATTERY
US2011212384 A1 20110901	US201113024249 20110209; US20100302884P 20100209	UNIV ALBERTA [CA]	H01M4/90; B01J23/26; H01M8/10; H01M8/22	ANODE CATALYSTS FOR FUEL CELL MEMBRANE REACTORS
WO2011143777 A1 20111124	CA20102712051 20100812; US20100346361P 20100519	UNIV ALBERTA [CA]; CHEN WEIXING [CA]; CUI XINWEI [CA]	C09C1/44; B82Y30/00; C25D5/54; C30B31/04; H01B1/04; H01G4/33; H01G9/155	PRODUCTION OF DECORATED CARBON NANOTUBES
WO2011116169 A2 20110922	US20100314855P 20100317	UNIV ARIZONA [US]; LIN JIEFENG [US]; KANNAN ARUNACHALA MADA [US]	H01M4/88; B01J23/42; B01J37/02; H01M4/92; H01M8/10	DURABLE PLATINUM / MULTI-WALLED CARBON NANOTUBE CATALYSTS
WO2011113038 A2 20110915	US20100313688P 20100312	UNIV ARIZONA [US]; UNIV DELAWARE [US]; JIANG HANQING [US]; YU CUNJIANG [US]; WEI BINGQING [US]	H01M4/134; B82B3/00; H01M4/38; H01M4/64; H01M10/0525	BUCKLED SILICON NANOSTRUCTURES ON ELASTOMERIC SUBSTRATES FOR RECHARGEABLE LITHIUM ION BATTERIES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102146564 A 20110810	CN20101594462 20101217; CN20111056071 20110308	UNIV BEIHANG	C23C26/00; H01M4/26	METHOD FOR PREPARING TITANIUM DIOXIDE ARRAY FILM ON FLEXIBLE METALLIC MATRIX AND APPLICATION OF METHOD IN LITHIUM ION BATTERY
CN102244235 A 20111116	CN20111150402 20110607	UNIV BEIHANG	H01M4/1391	PREPARATION METHOD FOR FERRIC OXIDE COATED TIN DIOXIDE NANOMETER POLYCRYSTALLINE MICROBALLOON
CN102254698 A 20111123	CN20111118452 20110509	UNIV BEIJING	H01G9/04; H01G9/20; H01L51/42; H01L51/44; H01L51/48; H01M14/00	COMPOSITE ELECTRODE OF DYE-SENSITIZED SOLAR CELL, PREPARATION METHOD AND APPLICATION THEREOF
CN102194577 A 20110921	CN20101121728 20100310; CN20111056427 20110309	UNIV BEIJING	H01G9/04; H01G9/20; H01M14/00	SOLAR CELL AND METHOD FOR MAKING SAME
CN102208639 A 20111005	CN20111118839 20110509	UNIV BEIJING CHEMICAL	H01M4/48; H01M4/131; H01M4/1391	GRAPHENE/TRANSITION METAL OXIDE COMPOSITE CATHODE MATERIAL AND PREPARATION METHOD THEREOF
CN102249349 A 20111123	CN20111105234 20110426	UNIV BEIJING CHEMICAL	C01G53/04; H01M4/26; H01M4/52	MULTI-COMPONENT DOPED SPHERICAL NANO NICKEL HYDROXIDE SYNTHESIZED BY CHEMICAL-ELECTROCHEMICAL COMBINED METHOD
CN102201566 A 20110928	CN20111102306 20110423	UNIV BEIJING CHEMICAL	H01M4/131; H01M4/1391	NANO BISMUTH ACID SILVER DOPED MANGANESE DIOXIDE ELECTRODE AND DOPING METHOD OF MANGANESE DIOXIDE ELECTRODE

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102214828 A 20111012	CN20101143034 20100409	UNIV BEIJING CHEMICAL	H01M8/02; C08J5/22; C08K3/22; C08K3/36; C08K9/04; C08K9/06; C08L25/04; C08L71/08; C08L79/04; C08L79/08; C08L81/02; C08L81/06; H01M2/16	NANOMETER PARTICULATE MATTER MODIFIED COMPOUND PROTON EXCHANGE MEMBRANE AND PREPARATION METHOD THEREOF
CN102154695 A 20110817	CN20111046499 20110225	UNIV BEIJING CHEMICAL	C30B29/16; C01G53/04; C30B7/10; C30B29/62	NICKEL OXIDE NANO ROD ARRAY MATERIAL, METHOD FOR PREPARING SAME AND APPLICATION THEREOF
CN102208616 A 20111005	CN20111118856 20110509	UNIV BEIJING CHEMICAL	H01M4/1393; H01M4/134	PREPARATION METHOD OF CARBON- COATED TRANSITION METAL NANO HOLLOW PARTICLE
CN102208631 A 20111005	CN20111107696 20110427	UNIV BEIJING CHEMICAL	H01M4/36; H01M4/139	ULTRA-LONG SINGLE CRYSTAL V2O5 NANO WIRE/GRAPHENE ANODE MATERIAL AND PREPARATION METHOD
CN102166523 A 20110831	CN20111022555 20110120	UNIV BEIJING CHEMICAL; BLUESTAR BEIJING CHEMICAL MACHINERY CO LTD	B01J23/89; B01J37/16; H01M4/90	PREPARATION METHOD OF NICKEL NANOPARTICLES-LOADED MULTI-WALL CARBON NANOTUBE CATALYTIC AGENT
CN102122580 A 20110713	CN20101597806 20101221	UNIV BEIJING CHEMICAL; HAINAN INST OF SCIENCE & TECHNOLOGY	H01G9/042; H01G9/20; H01L51/48; H01M14/00	METHOD FOR PREPARING MODIFIED TITANIUM DIOXIDE NANOTUBE DYE- SENSITIZED PHOTOANODE THIN FILM
CN102201287 A 20110928	CN20101132775 20100326	UNIV BEIJING NORMAL	H01G9/20; H01M14/00	SILICON MICRO-NANOMETER STRUCTURAL PHOTOELECTROCHEMICAL SOLAR CELL
CN102227021 A 20111026	CN20111131075 20110519	UNIV BEIJING NORMAL; BEIJING NORMAL UNIVERSITY SCIENCE PARK TECHNOLOGY DEV CO LTD	H01M4/1397; H01M4/136	PREPARATION METHOD FOR ANODE COMPOSITE MATERIALS OF LITHIUM ION BATTERIES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102244253 A 20111116	CN20111157947 20110613	UNIV BEIJING TECHNOLOGY	H01M4/38; H01M4/1393	CATHODE MATERIAL OF C (CARBON)/CO (CARBON MONOXIDE) LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
CN102208658 A 20111005	CN20111097129 20110418	UNIV BEIJING TECHNOLOGY	H01M4/88; B82Y40/00	METHOD FOR PREPARING NANOMETER Ti4O7 PARTICLES
CN102157727 A 20110817	CN20111068630 20110322	UNIV BEIJING TECHNOLOGY	H01M4/1391; B82Y40/00	PREPARATION METHOD FOR NANO MnO OF NEGATIVE ELECTRODE MATERIAL OF LITHIUM ION BATTERY
US2011183206 A1 20110728	US20100959227 20101202; US20090283280P 20091202	UNIV BRIGHAM YOUNG [US]	H01M4/58; B05D3/02; B05D5/12; F27D19/00; H01M4/26; H01M4/66	APPARATUS, SYSTEM, AND METHOD FOR CARBON NANOTUBE TEMPLATED BATTERY ELECTRODES
US2011261502 A1 20111027	US201113031117 20110218; WO2009US55910 20090903; US20080094353P 20080904	UNIV CALIFORNIA [US]	H01G9/155	CHARGE STORAGE DEVICE ARCHITECTURE FOR INCREASING ENERGY AND POWER DENSITY
CN102187413 A 20110914	WO2009US53527 20090812; US20080089221P 20080815	UNIV CALIFORNIA [US]	H01G9/042; H01G9/058	HIERARCHICAL NANOWIRE COMPOSITES FOR ELECTROCHEMICAL ENERGY STORAGE
WO2011100391 A2 20110818	US20100415712P 20101119; US20100303174P 20100210	UNIV CALIFORNIA [US]; CHEN ZHENG [US]; LU YUNFENG [US]	H01G9/058; H01G9/155	ASYMMETRIC HYBRID SUPERCAPACITORS BASED ON NANOTUBE NANOWIRE COMPOSITES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011156419 A2 20111215	US20100352263P 20100607	UNIV CALIFORNIA [US]; TOLBERT SARAH H [US]; NEMANICK ERIC JOSEPH [US]; KANG CHRIS BYUNG-HWA [US]	H01M10/0525; B82B3/00; H01M4/38; H01M4/48; H01M4/62	LITHIUM ION BATTERIES BASED ON NANOPOROUS SILICON
US2011180140 A1 20110728	US201113015170 20110127; US20100299129P 20100128	UNIV CENTRAL FLORIDA RES FOUND [US]	H01L31/0224; C08G75/06; C08K3/04; C08L53/00; H01G9/155; H01L29/15; H01L51/44	SUPRAMOLECULAR STRUCTURES COMPRISING AT LEAST PARTIALLY CONJUGATED POLYMERS ATTACHED TO CARBON NANOTUBES OR GRAPHENES
CN102134329 A 20110727	CN20111037634 20110214	UNIV CENTRAL SOUTH	C08J9/28; C08J5/18; C08J9/26; C08K3/22; C08L27/16; C08L27/20; H01M10/0565	ALUMINUM OXIDE MODIFIED POLYMER ELECTROLYTE THIN FILM AND PREPARATION METHOD THEREOF
CN102130323 A 20110720	CN20111036941 20110212	UNIV CENTRAL SOUTH	H01M4/13; H01M4/139; H01M4/80	LITHIUM ION BATTERY FILM CATHODE CONTAINING POROUS POLYMER ELASTOMER AND PREPARATION METHOD THEREOF
CN102244263 A 20111116	CN20111160960 20110615	UNIV CENTRAL SOUTH	H01M4/58; H01M4/1397	LITHIUM ION BATTERY PHOSPHATIC COMPOSITE CATHODE MATERIAL AND PREPARATION METHOD THEREOF
CN102130329 A 20110720	CN20111036854 20110212	UNIV CENTRAL SOUTH	H01M4/139; H01M4/80	PREPARATION METHOD OF LITHIUM ION BATTERY FILM CATHODE CONTAINING POROUS POLYMER ELASTOMER
CN102142553 A 20110803	CN20111036864 20110212	UNIV CENTRAL SOUTH	H01M4/38; H01M4/1395	TIN-COBALT-CARBON COMPOUND MATERIAL HAVING NANOMETER/MICRON STRUCTURE AND PREPARATION METHOD THEREOF
CN102208605 A 20111005	CN20111103868 20110425	UNIV CHANGAN	H01M4/139	METHOD FOR PREPARING TIN-CARBON NANO COMPOSITE ELECTRODE MATERIAL

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102185131 A 20110914	CN20111092511 20110413	UNIV CHANGAN	H01M4/139; H01M4/1395	PREPARATION METHOD OF POROUS CURRENT COLLECTOR/TIN-BASE ALLOY/CARBON NANO-TUBE INTEGRATED ELECTRODE
CN102208606 A 20111005	CN20111103870 20110425	UNIV CHANGAN	H01M4/139	PREPARATION METHOD OF TIN-CARBON NANO COMBINED ELECTRODE MATERIAL
CN102254702 A 20111123	CN20111089870 20110412	UNIV CHANGZHOU	H01G9/042; H01G9/20; H01L51/44; H01L51/46; H01M14/00	COMPOSITE LIGHT ANODE MATERIAL AND APPLICATION THEREOF TO DYE SENSITIZED CELL PREPARATION
JP2011195865 A 20111006	JP20100062120 20100318	UNIV CHIBA; JNC CORP	C25C5/02	METHOD FOR PRODUCING COPPER NANOSTRUCTURE
CN102130334 A 20110720	CN20111024990 20110115	UNIV CHINA MINING	H01M4/52; B82Y30/00	GRAPHENE-BASED NANO IRON OXIDE COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF
CN102115069 A 20110706	CN20101597607 20101220	UNIV CHINA PETROLEUM	C01B31/00; C01B31/04	GRAPHENE WITH POROUS STRUCTURE AND PREPARATION METHOD OF GRAPHENE
US2011217618 A1 20110908	TW20100106679 20100308	UNIV CHUNG YAN CHRISTIAN [TW]	C08F8/00; C08G73/16; H01M8/10	CHEMICALLY BONDED CARBON NANOTUBE-POLYMER HYBRID AND NANOCOMPOSITE THEREOF
US2011258939 A1 20111027	US201113087211 20110414; WO2009US60884 20091015; US20080105650P 20081015	UNIV COLUMBIA [US]	C01F1/00; B01J23/83; C01B31/20; C01F17/00; C09K3/14; H01M8/06	METHODS FOR PRODUCING NANOPARTICLES HAVING HIGH DEFECT DENSITY AND USES THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011300447 A1 20111208	US200913129610 20091118; US20080115616P 20081118; US20080115600P 20081118; WO2009US65022 20091118	UNIV CORNELL [US]	H01M4/48; H01M4/04	CARBON COATED ANODE MATERIALS
CN102167305 A 20110831	CN20111034166 20110201	UNIV DALIAN MARITIME	C01B25/45; H01M4/1397; H01M4/58	SPHERICAL BASIC AMMONIUM FERRIC PHOSPHATE POWDER WITH LARGE SPECIFIC SURFACE AREA AND PREPARATION METHOD THEREOF
CN102130341 A 20110720	CN20111027099 20110118	UNIV DALIAN TECH	H01M4/86; H01M4/88	BIPOlar PLATE OF FUEL CELL AND METHOD FOR PREPARING CARBON TITANIUM NANOCOMPOSITE FILM ON SURFACE THEREOF
AU2010241164 A1 20111110	EP20090005779 20090424; WO2010EP02521 20100423	UNIV DENMARK TECH DTU	H01M4/86; H01M4/88; H01M4/90; H01M8/12	COMPOSITE OXYGEN ELECTRODE AND METHOD
CN102231449 A 20111102	CN20111100661 20110421	UNIV EAST CHINA SCIENCE & TECH	H01M12/00; H01G9/042; H01G9/20; H01M4/92; H01M8/16	PHOTOELECTROCHEMICAL BIOFUEL CELL BASED ON QUANTUM DOT, TITANIUM DIOXIDE AND ENZYME, AND PREPARATION METHOD THEREOF
CN102157273 A 20110817	CN20111051715 20110304	UNIV ELECTRONIC SCIENCE & TECH	H01G9/048; H01G9/20; H01L51/44; H01M14/00	COMPOSITE OPTICAL ANODE OF DYE - SENSITIZED SOLAR CELL
CN102148099 A 20110810	CN20101596987 20101220	UNIV ELECTRONIC SCIENCE & TECH	H01G9/042; H01G9/20; H01L51/42; H01L51/44; H01L51/48; H01M14/00	GRAPHENE DYE SENSITIZED SOLAR CELL AND PRODUCTION METHOD THEREOF



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
KR20110132893 A 20111209	KR20100052488 20100603	UNIV EWEHA IND COLLABORATION [KR]	H01M4/90; B01J21/18; B01J37/00; B82B3/00	CARBON NANOSTRUCTURES LOADED WITH METAL NANOPARTICLES, FABRICATION METHOD THEREOF AND APPLICATION FOR ELECTRODE MATERIALS IN FUEL CELLS
AU2010241865 A1 20111013	US20090174122P 20090430; WO2010US31995 20100422	UNIV FLORIDA	B82B3/00; H01M8/02; H01M12/06	SINGLE WALL CARBON NANOTUBE BASED AIR CATHODES
CN102231438 A 20111102	CN20111131917 20110520	UNIV FUDAN	H01M4/48; H01M4/131; H01M4/1391	AMORPHOUS B2O3 (BORON OXIDE) NANO CATHODE MATERIAL OF LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
CN102136565 A 20110727	CN20101100166 20100122	UNIV FUDAN	H01M4/13; H01M4/139; H01M4/36	IRON OXIDE-SELENIUM NANO COMPOSITE CATHODE MATERIAL FOR LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
CN102157723 A 20110817	CN20111063381 20110316	UNIV FUDAN	H01M4/131; B82Y30/00; H01M4/1391	NEGATIVE ELECTRODE MATERIAL FOR LITHIUM ION BATTERY AND MANUFACTURE METHOD THEREOF
CN102122577 A 20110713	CN20101608428 20101228	UNIV FUDAN	H01G9/04; H01G9/20; H01L51/44; H01L51/48; H01M14/00	TITANIUM DIOXIDE (TiO2) NANO-ROD SINGLE-CRYSTAL ARRAY THIN FILM AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF
CN102157268 A 20110817	CN20101555232 20101123	UNIV FUDAN	H01G9/042; C03C17/23; H01G9/20; H01L51/42; H01L51/44; H01L51/48;	TUNGSTEN-DOPED NANOCRYSTALLINE TITANIUM DIOXIDE SEMICONDUCTOR FILM AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102122581 A 20110713	CN20101608153 20101228	UNIV FUZHOU	H01G9/042; H01G9/20; H01M14/00	QUANTUM DOT SENSITIZED ZINC STANNATE NANOCRYSTALLINE THIN-FILM SOLAR CELL AND PREPARATION METHOD THEREOF
CN102161504 A 20110824	CN20101607132 20101227	UNIV FUZHOU	C01G23/00; B82Y30/00; B82Y40/00; H01M4/485	TITANATE NANOTUBE AND PREPARATION METHOD AND APPLICATION THEREOF
CN102255116 A 20111123	CN20111137022 20110525	UNIV FUZHOU	H01M10/54	WASTE ACID TREATING AGENT FOR GEL BATTERY PRODUCTION, AND PREPARATION AND APPLICATION METHOD THEREOF
US2011256469 A1 20111020	US201113081809 20110407; US20100321984P 20100408	UNIV GEORGETOWN [US]	H01M4/92; B01J23/46; B01J37/02; B01J37/08; B01J37/16; B01J37/34; H01M8/22	PLATINUM ADLAYERED RUTHENIUM NANOPARTICLES, METHOD FOR PREPARING, AND USES THEREOF
CN102153075 A 20110817	CN20111071442 20110322	UNIV GUILIN TECH GUT	C01B31/04	METHOD FOR SYNTHESIZING GRAPHENE OXIDE BY ULTRASONIC ASSISTANCE HUMMERS METHOD
CN102218331 A 20111019	CN20111105441 20110426	UNIV HARBIN NORMAL	B01J23/89; B01J37/34; H01M4/92	PREPARATION METHOD OF CARBON-SUPPORTED PT-BASED NANOMETER CATALYST
CN102130358 A 20110720	CN20111025888 20110125	UNIV HEBEI TECHNOLOGY	H01M10/052; H01M4/58; H01M4/62; H01M10/058	LITHIUM BATTERY AND PREPARATION METHOD THEREOF
CN102231435 A 20111102	CN20111132431 20110520	UNIV HEFEI TECHNOLOGY	H01M4/1391	METHOD FOR PREPARING ELECTRODE MATERIAL CUO (CUPRIC OXIDE) FILM OF LITHIUM ION BATTERY ON COPPER SUBSTRATE
CN102254706 A 20111123	CN20111127084 20110517	UNIV HEFEI TECHNOLOGY	H01G9/048; H01G9/20; H01L51/44; H01L51/48; H01M14/00	ZNO MICRO-NANO STRUCTURE ELECTRODE OF DYE SENSITIZED SOLAR CELL AND MANUFACTURING METHOD THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102161000 A 20110824	CN20101605109 20101224	UNIV HEILONGJIANG	B01J23/755; B01J37/16; B82Y40/00; H01M4/38	METHOD FOR PREPARING CARBON NANO TUBE LOADED NANO NICKEL POWDER MATERIAL BY LIQUID-PHASE REDUCTION METHOD
CN102201589 A 20110928	CN20111093948 20110414	UNIV HEILONGJIANG	H01M8/10	NANO ELECTROLYTE MATERIAL FOR MESOTHERMAL SOLID OXIDE FUEL CELL AND PREPARATION METHOD OF NANO ELECTROLYTE MATERIAL
CN102157732 A 20110817	CN20111071827 20110324	UNIV HENAN	H01M4/48; B82Y30/00; B82Y40/00; H01M4/131; H01M4/1391	TITANIUM DIOXIDE/CARBON COMPOSITE NANOTUBE AND PREPARATION AND APPLICATION THEREOF
CN102129918 A 20110720	CN20101005219 20100113	UNIV HONG KONG POLYTECHNIC	H01G9/20; H01L51/42; H01M14/00	DYE SENSITIZED SOLAR BATTERY
CN102180439 A 20110914	CN20111079747 20110331	UNIV HUAZHONG SCIENCE TECH	B81C1/00; B81B7/04; C01B31/04	CARBON MICROSTRUCTURE WITH GRAPHENE INTEGRATED ON SURFACE AND PREPARATION METHOD THEREOF
CN201904216U U 20110720	CN20102623088U 20101124	UNIV HUAZHONG SCIENCE TECH	H01G9/052; H01G9/20; H01G13/00; H01L51/48; H01M14/00	DEVICE FOR SELECTABLE SINTERING OF PHOTO-ANODE OF FLEXIBLE SOLAR CELL
CN102154706 A 20110817	CN20111066629 20110318	UNIV HUAZHONG SCIENCE TECH	C30B29/62; C30B25/00	METHOD FOR PREPARING ONE-DIMENSION NANO MATERIALS
CN102222573 A 20111019	CN20111073527 20110325	UNIV HUAZHONG SCIENCE TECH	H01G9/04; H01G9/20; H01M14/00	METHOD FOR PREPARING TITANIUM DIOXIDE NANOCRYSTALLINE ELECTRODE
CN102208622 A 20111005	CN20111101055 20110421	UNIV HUNAN	H01M4/1397	METHOD FOR PREPARING LINEAR NANO CARBON CONDUCTIVE AGENT COATED LITHIUM IRON PHOSPHATE ANODE MATERIAL

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102244275 A 20111116	CN20111124288 20110513	UNIV JILIANG CHINA	H01M4/90; H01M4/88	METAL ELECTRODE OF REDOX FLOW BATTERY AND PREPARATION METHOD THEREOF
KR20110128128 A 20111128	KR20100047337 20100520	UNIV KOREA RES & BUS FOUND [KR]	C12N11/04; C12Q1/25; G01N33/50; H01M8/16	COMPLEX OF ENZYME-3 DIMENSIONAL STRUCTURE OF FIBER MATRIX, MANUFACTURING METHOD AND USE THEREOF
KR20110137756 A 20111223	KR20100057555 20100617	UNIV KOREA RES & BUS FOUND [KR]	H01M8/16; C12Q1/26; G01N27/327; G01N33/573	ELECTROLYTIC MATERIAL INCLUDING MINUTE TUBE ACCUMULATED ENZYME AND MAGNETIC NANOPARTICLE AND SWITCHABLE BIOSENSOR AND BIOFUELCELL USING THE SAME
KR20110090348 A 20110810	KR20100010069 20100203	UNIV KOREA RES & BUS FOUND [KR]	H01M8/02; B82B3/00	METHOD OF MANUFACTURING CARBON NANO TUBE WITH SEA URCHIN SHAPE, CONDUCTIVE FILLER-POLYMER COMPOSITE MATERIALS AND COMPOSITE SEPARATOR FOR FUEL CELL USING THE METAL-POLYMER COMPOSITE MATERIALS
US2011262839 A1 20111027	KR20100038181 20100423; KR20100080000 20100818; KR20110013682 20110216	UNIV LELAND STANFORD JUNIOR [US]; SAMSUNG ELECTRONICS CO LTD [KR]	H01M8/12; H01M8/10	PROTON CONDUCTING ELECTROLYTE MEMBRANES HAVING NANO-GRAIN YSZ AS PROTECTIVE LAYERS, AND MEMBRANE ELECTRODE ASSEMBLIES AND CERAMIC FUEL CELLS COMPRISING SAME
ES2369830 A1 20111207	ES20100030706 20100513	UNIV MADRID AUTONOMA [ES]	B01D71/02; B01D67/00; H01M8/10	MEMBRANA NANOPOROSA. PROCEDIMIENTO DE OBTENCION DE DICHA MEMBRANA Y USO DE LA MISMA.
WO2011146714 A2 20111124	US20100346771P 20100520	UNIV MICHIGAN [US]; LINIC SULJO [US]; CHRISTOPHER PHILLIP N [US]	B01J19/08; C01B31/20; C07D301/04; H01M4/86; H01M8/02	METHOD AND DEVICE USING PLASMON-RESONATING NANOSTRUCTURES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011099497 A1 20110818	JP20100029640 20100215; JP20100027447 20100210	UNIV MIE [JP]; ITOH TAKAHITO [JP]; UNO TAKAHIRO [JP]; TAKEDA YASUO [JP]; IMANISHI NOBUYUKI [JP]; ITSUBO AKIRA [JP]; NOMURA EIICHI [JP]; KATOH SHIGEMITSU [JP]; OKUDA SEIJI [JP]	H01M10/0565; C08F299/00; C08K3/10; C08L71/02; H01B1/06	SOLID ELECTROLYTE COMPOSITION, SOLID ELECTROLYTE, LITHIUM ION SECONDARY BATTERY, AND METHOD FOR PRODUCING LITHIUM ION SECONDARY BATTERY
WO2011112897 A1 20110915	US20100312922P 20100311	UNIV MINNESOTA [US]; HILLMYER MARC [US]; PITET LOUIS [US]; AMENDT MARK [US]	C08G63/06; B01D67/00; B01D69/12; B01D71/80; C08J9/26; H01M2/16	NANOPOROUS LINEAR POLYOLEFIN MEMBRANES AND BLOCK COPOLYMER PRECURSORS FOR SAME
WO2011081508 A2 20110707	MA20090032468 20091231	UNIV MOHAMMED V AGDAL [MA]; GUESSOUS AICHA [MA]; BOUOUD SAHAR [MA]; ELHOURCH ABDERRAHIM [MA]; ELKACEMI KACEM [MA]	C25D9/04; C01B25/37; C01B25/39; C01B25/45; H01M4/58	PRODUCTION OF THIN-FILM MNPO <sub>4</sub> , NH <sub>2</sub> O CATHODIC MATERIALS
CN102170000 A 20110831	CN20111083420 20110402	UNIV NANCHANG	H01M6/40; H01M6/06	COMPOSITE LAYER PAPER BATTERY AND PREPARATION METHOD
CN102169999 A 20110831	CN20111083400 20110402	UNIV NANCHANG	H01M6/40	PAPER TYPE BATTERY FORMED BY METALLIC NANO-MATERIAL
CN102254695 A 20111123	CN20111103321 20110422	UNIV NANJING	H01G9/04; H01G9/20; H01L51/42; H01L51/44; H01L51/48; H01M14/00	DYE-SENSITIZED NANOCRYSTALLINE THIN FILM SOLAR CELL WITH LIGHT TRAPPING STRUCTURE
CN102169987 A 20110831	CN20111008256 20110114	UNIV NANJING	H01M4/36; H01M4/139; H01M4/1391	GRAPHENE-SUPPORTED POROUS NICKEL OXIDE AND PREPARATION METHOD THEREOF, AND APPLICATION OF GRAPHENE-SUPPORTED POROUS NICKEL OXIDE IN LITHIUM ION BATTERY ANODE MATERIAL
CN102139219 A 20110803	CN20111029583 20110127	UNIV NANJING	B01J23/89; B01J37/16; H01M4/90	METHOD FOR PREPARING CARRIER LOADED PT-CU NANOCUBE CATALYST

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102208612 A 20111005	CN20111103772 20110425	UNIV NANJING	H01M4/1391	METHOD FOR SYNTHESIZING HIGH-MAGNIFICATION LITHIUM ION POWDER BATTERY CATHODE TIO2 COATED LI4TI5O12 COMPOSITE MATERIAL
CN102120186 A 20110713	CN20101552955 20101122	UNIV NANJING	B01J31/28; G01N21/65; H01M4/92	PREPARATION METHOD OF PLATINUM NANOPARTICLE LOADED GRAPHENE
CN102145305 A 20110810	CN20111088155 20110408	UNIV NANJING AERONAUTICS	B01J31/28; H01M4/90	METHOD FOR PREPARING GRAPHENE-LOADED NANO ALLOY CATALYST
CN102166524 A 20110831	CN20111051751 20110304	UNIV NANJING NORMAL	B01J23/89; B82Y40/00; H01M4/92	METHOD FOR PREPARING HIGH-ALLOYING CARBON-SUPPORTED PDPE NANOCATALYST BY IN-SITU REDUCTION METHOD
CN102172539 A 20110907	CN20111064052 20110317	UNIV NANJING NORMAL	B01J31/22; B82Y40/00; H01M4/92	METHOD FOR PREPARING PLATINUM NANO CLUSTER CATALYST THROUGH THERMAL DECOMPOSITION OF COMPLEX
CN102151565 A 20110817	CN20111051734 20110304	UNIV NANJING NORMAL	B01J23/44; B01J37/16; B01J37/34; B82Y40/00; H01M4/92	METHOD FOR SYNTHESIZING PDPT/GRAPHENE NANO ELECTRICAL CATALYST IN ONE STEP BY MICROWAVE PROCESS
CN102185154 A 20110914	CN20111095104 20110415	UNIV NANJING NORMAL	H01M10/0525; H01M4/136; H01M4/58; H01M10/058	NANO FERRIC PHOSPHATE HOLLOW SPHERE LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
CN102185147 A 20110914	CN20111095113 20110415	UNIV NANJING NORMAL	H01M4/58; H01M4/1397	NANO IRON PHOSPHATE HOLLOW SPHERE/GRAPHENE COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF
CN102185155 A 20110914	CN20111095105 20110415	UNIV NANJING NORMAL	H01M10/0525; H01M4/13; H01M4/136; H01M4/1397	NANOMETER FERRIC PHOSPHATE HOLLOW SPHERE/GRAPHENE LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102145282 A 20110810	CN20101186245 20100528	UNIV NANJING SCIENCE & TECH	B01J23/34; B01J37/34; H01M4/90	PREPARATION METHOD OF GRAPHENE-SUPPORTED NANO MNOOH COMPOSITE MATERIAL
CN102244288 A 20111116	CN20111147502 20110602	UNIV NANKAI	H01M10/052; H01M4/139; H01M4/36	LITHIUM-PHOSPHORUS SECONDARY BATTERY
US2011229777 A1 20110922	US200913062910 20090907; US20080095085P 20080908; WO2009SG00319 20090907	UNIV NANYANG TECH [SG]	H01M12/06; H01G9/042; H01G9/155; H01M4/86; H01M4/88; H01M8/10; H01M8/14; H01M8/22	ELECTRODE MATERIALS FOR METAL-AIR BATTERIES, FUEL CELLS AND SUPERCAPACITATORS
CN102254697 A 20111123	CN20111111461 20110425	UNIV NINGBO	H01G9/04; H01G9/20; H01L51/42; H01L51/44; H01L51/48; H01M14/00	TITANIUM DIOXIDE LIGHT ANODE, AND PREPARATION METHOD AND USE THEREOF
WO2011160022 A1 20111222	US20100355787P 20100617	UNIV NORTHEASTERN [US]; MUKERJEE SANJEEV [US]; HE QINGGANG [US]; RAMASWAMY NAGAPPAN [US]	H01M8/10; H01M4/90	HIGHLY STABLE PLATINUM ALLOY CATALYST FOR METHANOL ELECTROOXIDATION
US2011171531 A1 20110714	US20100877602 20100908; US20090240466P 20090908	UNIV NORTHWESTERN [US]	H01M4/583; B01J20/28; H01L31/0224	MULTIFUNCTIONAL NANOCOMPOSITES OF CARBON NANOTUBES AND NANOPARTICLES FORMED VIA VACUUM FILTRATION
CN102157740 A 20110817	CN20111051634 20110303	UNIV NORTHWESTERN POLYTECHNIC	H01M4/86; H01M4/88	COPPER AND SILVER NANO-ALLOY CATHODE FOR FUEL CELL AND PREPARATION METHOD THEREOF
CN102160135 A 20110817	WO2009AU01072 20090820; AU20080904294 20080820	UNIV QUEENSLAND	H01G9/058; B01J20/22; H01G9/155	NANOPOROUS CARBON ELECTRODES AND SUPERCAPACITORS FORMED THEREFROM

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011089521 A2 20110728	US20100297853P 20100125	UNIV RAMOT [IL]; PELED EMANUEL [IL]; BLUM ARNON [IL]; AHARON ADI [IL]	H01M8/10	METHOD OF MANUFACTURING PROTON-CONDUCTING MEMBRANES
WO2011112598 A1 20110915	US20100347700P 20100524; US20100311615P 20100308; US201161433702P 20110118	UNIV RICE WILLIAM M [US]; TOUR JAMES M [US]; SUN ZHENGZONG [US]; YAN ZHENG [US]	C01B31/02; H01B1/04; H01M4/583	GROWTH OF GRAPHENE FILMS FROM NON-GASEOUS CARBON SOURCES
CN102254693 A 20111123	CN20111096385 20110418	UNIV SHAANXI NORMAL	H01G9/04; H01G9/20; H01L51/48; H01M14/00	METHOD FOR PREPARING LIGHT ANODE OF DYE-SENSITIZED SOLAR CELL
CN102157266 A 20110817	CN20111077871 20110330	UNIV SHANDONG	H01G9/04; H01G9/145	FLEXIBLE FILM SUPER CAPACITOR AND PREPARATION METHOD THEREOF
CN102174678 A 20110907	CN20111078247 20110330	UNIV SHANDONG	C22C1/08	NANO POROUS METAL/CONDUCTING POLYMER COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF
CN102148371 A 20110810	CN20111050148 20110303	UNIV SHANGHAI	H01M4/36; H01M4/13; H01M4/139	GRAPHENE/PHOSPHORIC ACID IRON-LITHIUM COMPOSITE MATERIAL WITH SANDWICH STRUCTURE AND PREPARATION METHOD THEREOF
CN102244242 A 20111116	CN20111146225 20110602	UNIV SHANGHAI	H01M4/1397	HYDROTHERMAL PREPARATION METHOD OF ZINC OXIDE-LITHIUM IRON PHOSPHATE COMPOSITE ANODE MATERIAL
CN102231437 A 20111102	CN20111131191 20110520	UNIV SHANGHAI	H01M4/1397	METHOD FOR SYNTHESIZING CARBON-ENCAPSULATED COBALT-BASED NANOROD NEGATIVE MATERIAL FOR LITHIUM-ION BATTERY WITH CORE SHELL STRUCTURE



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102184781 A 20110914	CN20111050158 20110303	UNIV SHANGHAI	H01G9/042	NANO-NICKEL OXIDE/GRAPHENE COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF
CN102179257 A 20110914	CN20111094529 20110415	UNIV SHANGHAI	B01J23/89; H01M4/92	PREPARATION METHOD OF ELECTRO-CATALYST OF SINGLE-WALLED CARBON NANOTUBE LOADING PLATINUM BASE FOR FUEL CELL
CN102130324 A 20110720	CN20111000627 20110105	UNIV SHANGHAI	H01M4/131	PREPARATION METHOD OF LITHIUM TITANATE/CARBON NANO TUBE COMPOSITE CATHODE MATERIAL
CN102244245 A 20111116	CN20111152672 20110609	UNIV SHANGHAI	H01M4/1397	TWO-STEP CARBOTHERMIC REDUCTION PREPARATION METHOD OF ANODE MATERIAL LIFEPO4/C OF LITHIUM ION BATTERY
CN102163711 A 20110824	CN20111058034 20110310	UNIV SHANGHAI JIAOTONG [CN]	H01M4/139; H01M4/136; H01M4/1397; H01M4/66	METHOD FOR PREPARING LITHIUM ION BATTERY NEGATIVE MATERIAL BY UTILIZING MESOPOROUS CARBON SUPPORTED NANO PARTICLES
CN102185128 A 20110914	CN20111083018 20110402	UNIV SHANGHAI JIAOTONG [CN]	H01M4/133; H01M4/1393	SILICON CARBON COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF
CN102179244 A 20110914	CN20111094487 20110413	UNIV SHANXI	B01J23/42; H01M4/92	PREPARATION METHOD OF CATALYST OF PROTON EXCHANGE MEMBRANE FUEL CELL
CN102244291 A 20111116	CN20111144494 20110531	UNIV SOUTH CHINA NORMAL	H01M10/0565	GEL STATE POLYMER LITHIUM ION BATTERY ELECTROLYTE AND PREPARATION METHOD THEREOF
CN102127828 A 20110720	CN20111027735 20110125	UNIV SOUTH CHINA NORMAL	D01F9/22; D01D5/00; D01F9/21; D01F9/26; H01M4/13; H01M4/139; H01M4/62; H01M10/0525	POROUS NANO CARBON FIBER MATERIAL, LITHIUM BATTERY CATHODE MATERIAL AND CATHODE PLATE

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US8083907 B1 20111227	US20040711552 20040924; US20030481423P 20030926	UNIV SOUTH FLORIDA [US]	C23C14/00; C23C14/32; H01M8/00	HYDROGEN STORAGE NANO-FOIL AND METHOD OF MANUFACTURE
CN102136581 A 20110727	CN20111042093 20110222	UNIV SOUTHEAST	H01M4/88	METHOD FOR MODIFYING CATHODE OF MICROBIAL FUEL CELL
CN102254694 A 20111123	CN20111098629 20110420	UNIV SOUTHEAST	H01G9/04; H01G9/20; H01L51/48; H01M14/00	METHOD FOR PREPARING NOBLE METAL-MODIFIED DYE-SENSITIZED SOLAR CELL PHOTO-ANODE BASED ON ELECTROSTATIC SPRAYING METHOD
CN102231334 A 20111102	CN20111098804 20110420	UNIV SOUTHEAST	H01G9/04; H01G9/20; H01L51/48; H01M14/00	PREPARATION METHOD OF SOLAR BATTERY PHOTOANODE BASED ON LOCALIZED SURFACE PLASMON RESONANCE (LSPR)
US2011309306 A1 20111222	US201113099199 20110502; US20100329993P 20100430	UNIV SOUTHERN CALIFORNIA [US]	H01B1/06; B22F9/16; C01B33/02; C30B25/00; H01L21/20; H01M4/02; H01M4/04	FABRICATION OF SILICON NANOWIRES
WO2011137404 A2 20111103	US20100330181P 20100430	UNIV SOUTHERN CALIFORNIA [US]; ZHOU CHONGWU [US]; CHEN PO-CHIANG [US]; XU JING [US]; CHEN HAITIAN [US]	H01G9/058; B82B3/00; H01G9/042	NANOSTRUCTURED THIN-FILM ELECTROCHEMICAL CAPACITORS
WO2011137448 A2 20111103	US20100329986P 20100430	UNIV SOUTHERN CALIFORNIA [US]; ZHOU CHONGWU [US]; CHEN PO-CHIANG [US]; XU JING [US]; CHEN HAITIAN [US]	H01M4/04; B82B3/00; C23C14/34; H01M4/139; H01M4/38; H01M4/583; H01M10/0525	SILICON-CARBON NANOSTRUCTURED ELECTRODES
CN102153138 A 20110817	CN20101531369 20101102	UNIV SUN YAT SEN	C01G23/053; B82Y40/00; H01G9/042; H01G9/20; H01L51/42; H01L51/44; H01M14/00	GRADED TITANIUM DIOXIDE MICROSPHERES CONSISTING OF NANO RODS AND NANO GRANULES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011122743 A1 20111006	KR20100028122 20100329	UNIV SUNGKYUNKWAN FOUND [KR]; LEE HYO YOUNG [KR]; MOON IN KYU [KR]; LEE JUNG HYUN [KR]	C01B31/02; B01D71/02; H01G9/042; H01M4/96	GRAPHENE OXIDE REDUCING AGENT COMPRISING A REDUCING AGENT CONTAINING A HALOGEN ELEMENT, METHOD FOR MANUFACTURING A REDUCED GRAPHENE OXIDE USING SAME, AND USE OF THE REDUCED GRAPHENE OXIDE MANUFACTURED BY THE METHOD
CN102157579 A 20110817	CN20101581199 20101209	UNIV SUZHOU	H01L31/04; H01G9/20; H01L31/0352; H01M14/00	SOLAR BATTERY BASED ON SILICON NANO MATERIAL
AU2009343457 A1 20111013	WO2009IB51369 20090401	UNIV THE WESTERN CAPE	H01M4/525; H01M4/52	METHOD FOR PRODUCING A CARBON COMPOSITE MATERIAL
CN102244254 A 20111116	CN20111164092 20110617	UNIV TIANJIN	H01M4/38; B82Y30/00; B82Y40/00; H01M4/1391	HOLLOW NANOWIRE-POLYMER FILM NUCLEAR SHELL STRUCTURE COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF
CN102122579 A 20110713	CN20101578456 20101208	UNIV TIANJIN TECHNOLOGY	H01G9/042; H01G9/20; H01L51/44; H01L51/48; H01M14/00	CARBON NANOTUBE ARRAY PHOTOCATHODE MATERIAL AND PREPARATION METHOD AND APPLICATION THEREOF
CN102244255 A 20111116	CN20111137688 20110526	UNIV TONGJI	H01M4/48; H01M4/1391	NOVEL CATHODE MATERIAL OF VANADIUM OXIDE NANOMETER LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
CN102117918 A 20110706	CN20111021917 20110119	UNIV TONGJI	H01M4/90; H01M4/88	PREPARATION METHOD AND APPLICATION OF NITROGEN-DOPED CARBON NANOTUBE TO PREPARING CATHODE OF MICROBIAL FUEL CELL OF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
WO2011140658 A1 20111117	US20100333953P 20100512	UNIV TORONTO [CA]; PITCHAI-MYDEEN SYED ABTHAGIR [CA]; YAN NING [CA]	C08J5/18; C08J7/04; C09D5/24; C09D179/04; C09K19/00; G01N27/327; H01M4/36; H05F1/02	METHOD OF PRODUCING ELECTRICALLY CONDUCTIVE POLYMER AND CELLULOSE NANOCOMPOSITES
JP2011249276 A 20111208	JP20100124098 20100531	UNIV TOTTORI; HITACHI SHIPBUILDING ENG CO; TOMOE SEISAKUSHO KK; ADVANCED MATERIALS PROC INST KINKI JAPAN	H01M8/02; H01M8/12	APPARATUS AND METHOD FOR PRODUCING ELECTROLYTE THIN FILM FOR SOLID OXIDE FUEL CELL
CN102214817 A 20111012	CN20101144740 20100409	UNIV TSINGHUA [CN]	H01M4/134; H01M4/1395	CARBON/SILICON/CARBON NANO COMPOSITE STRUCTURE CATHODE MATERIAL AND PREPARATION METHOD THEREOF
CN102227033 A 20111026	CN20111126268 20110516	UNIV TSINGHUA [CN]	H01M12/06; H01M4/86; H01M4/92	LITHIUM AIR BATTERY OF MICRO-NANO SPHERICAL STRUCTURE
CN102139870 A 20110803	CN20101579343 20101203	UNIV TSINGHUA [CN]	C01B25/45; B82Y40/00; H01M4/1397; H01M4/58	NANOCRYSTAL MICROSPHERE LITHIUM IRON PHOSPHATE MATERIAL WITH HIGH TAP DENSITY AND PREPARATION METHOD THEREOF
CN102234119 A 20111109	CN20101168570 20100504	UNIV TSINGHUA [CN]	C01B33/20; B82B3/00; H01M4/58	NICKEL SILICATE NANOTUBES WITH MAGNETIC PROPERTY AND LITHIUM ION BATTERY PROPERTY AND PREPARATION METHOD THEREOF
CN102185136 A 20110914	CN20101144819 20100409	UNIV TSINGHUA [CN]	H01M4/1397	PREPARATION METHOD OF LITHIUM ION BATTERY CATHODE MATERIAL NANO LITHIUM IRON PHOSPHATE
US2011171559 A1 20110714	CN20071125266 20071219	UNIV TSINGHUA [CN]; HON HAI PREC IND CO LTD [TW]	H01M8/04; H01M8/00; H01M8/10	MEMBRANE ELECTRODE ASSEMBLY AND METHOD FOR MAKING THE SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102244250 A 20111116	CN20111159043 20110614	UNIV TSINGHUA GRADUATE SCHOOL	H01M4/36; H01M4/1393	GRAPHENE MACROSCOPIC BODY/TIN OXIDE COMPOSITE LITHIUM ION BATTERY ANODE MATERIAL AND PROCESS THEREOF
BRPI0619176 A2 20110920	US20050740960P 20051130; WO2006US46107 20061130	UNIV WASHINGTON [US]	H01M8/04	MATERIAL DE ARMAZENAMENTO DE HIDROGÊNIO DE NANOCOMPÓSITO DE ESPUMA A BASE DE CARBONO
WO2011100591 A1 20110818	US20100304313P 20100212	UNIV WASHINGTON STATE RES FDN [US]; NORTON M GRANT [US]; SAHAYM UTTARA [US]	H01M4/78	LITHIUM-ION BATTERIES WITH NANOSTRUCTURED ELECTRODES AND ASSOCIATED METHODS OF MAKING
CN102140734 A 20110803	CN20111003213 20110110	UNIV WUHAN TECH	D04H1/72; D01D5/00; D01F8/16; H01M2/16	ENHANCED BI-COMPONENT NANOFIBER POROUS MEMBRANE AND PREPARATION METHOD THEREOF
CN102154701 A 20110817	CN20111048928 20110301	UNIV WUHAN TECH	C30B29/32; C30B7/14; C30B29/62; H01G9/042	METHOD FOR PREPARING MANGANESE MOLYBDATE/COBALT MOLYBDATE HIERARCHICAL HETEROSTRUCTURE NANOWIRES
CN102140762 A 20110803	CN20111003226 20110110	UNIV WUHAN TECH	D06M15/564; D01F6/12; D01F6/16; D01F6/18; D01F6/32; D01F6/62; D04H1/72; D06M15/572; H01M2/16	REINFORCED NANOFIBER POROUS MEMBRANE AND PREPARATION METHOD THEREOF
CN102185163 A 20110914	CN20111082821 20110401	UNIV XIAN JIAOTONG	H01M10/36; H01M4/505	METHOD FOR PREPARING INORGANIC AQUEOUS SOLUTION LITHIUM ION BATTERY SYSTEM BY USING MONOCRYSTAL LIMNO (LITHIUM MANGANESE OXIDE) NANOWIRE
CN102154739 A 20110817	CN20101612777 20101230	UNIV XIANGTAN	D01F9/22; B82Y40/00; D01D5/00; D01F1/10; D01F9/21; H01M4/139	METHOD FOR PREPARING LITHIUM ION BATTERY CATHODE MATERIAL ZNFE <sub>2</sub> O <sub>4</sub> /C NANO FIBERS

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102148339 A 20110810	CN20101109803 20100210	UNIV XIANGTAN	H01M2/02; B32B15/01; C25D5/08; C25D5/14; C25D5/18; C25D5/26; C25D5/36; C25D5/48	NICKEL-COBALT/NICKEL/NICKEL-COBALT MULTILAYER FILM PLATED BATTERY SHELL STEEL STRIP AND PREPARATION METHOD THEREOF
CN102208632 A 20111005	CN20111090583 20110412	UNIV XIANGTAN	H01M4/38; C25D9/06; H01M4/04; H01M4/1395	SILICON NANO WIRE-FULLERENE COMPLEX CATHODE MATERIAL FOR LITHIUM ION BATTERY AND PREPARATION METHOD THEREOF
WO2011156825 A2 20111215	US20100352574P 20100608; US20100422006P 20101210	UNIV YALE [US]; TAYLOR ANDRE D [US]; SCHROERS JAN [US]	H01M10/36	BULK METALLIC GLASS NANOWIRES FOR USE IN ENERGY CONVERSION AND STORAGE DEVICES
WO2011136133 A1 20111103	JP20100105128 20100430	UNIV YAMANASHI [JP]; JX NIPPON OIL & ENERGY CORP [JP]; SUZUKI AKIHIRO [JP]; TOYOOKA TAKEHIRO [JP]; MATSUO AKIRA [JP]; NISHIZAWA TAKESHI [JP]; OMARU ATSUO [JP]	D04H3/00; H01M2/16	BATTERY SEPARATOR WHICH IS FORMED FROM POROUS POLYOLEFIN NANOFILAMENT SHEET
KR20110139080 A 20111228	KR20100059000 20100622	UNIV YONSEI IACF [KR]	H01M4/90; B01J21/18; B01J23/42; B01J23/46	ELECTROCATALYST LAYER FOR INHIBITING CARBON CORROSION IN POLYMER
KR20110116622 A 20111026	KR20100036146 20100420	UNIV YONSEI IACF [KR]	H01M4/485; C01B31/02; H01M4/583; H01M10/0525	METHOD OF MANUFACTURING TRANSITION METAL OXIDE/CARBON NANOTUBE COMPOSITE AND THE COMPOSITE
KR20110121583 A 20111107	KR20100040463 20100430	UNIV YONSEI IACF [KR]	C01B31/02; C01G55/00; H01M4/583; H01M8/02	TRANSITION METAL OXIDE/GRAPHENE COMPOSITES BY USING MICROWAVE- POLYOL PROCESS AND SYNTHESIZING METHOD THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
KR20110121584 A 20111107	KR20100040483 20100430	UNIV YONSEI IACF [KR]	C01B31/02; C01G23/00; H01M4/583; H01M8/02	TRANSITION METAL OXIDE/GRAPHENE COMPOSITES BY USING MICROWAVE-WATER PROCESS AND SYNTHESIZING METHOD THEREOF
US2011318639 A1 20111229	KR20100060149 20100624	UNIV YONSEI IACF [KR]; SAMSUNG ELECTRO MECH [KR]	H01M4/505; G05D23/00; H01M4/88	LITHIUM MANGANESE OXIDE-CARBON NANO COMPOSITE AND METHOD FOR MANUFACTURING THE SAME
CN102142550 A 20110803	CN20111046528 20110225	UNIV ZHEJIANG	H01M4/36; B82Y30/00; B82Y40/00; H01M4/139	COMPOUND NANO MATERIAL OF GRAPHENE NANO SLICE AND WS2 AND PREPARATION METHOD THEREOF
CN102142548 A 20110803	CN20111046467 20110225	UNIV ZHEJIANG	H01M4/36; B82Y30/00; B82Y40/00; H01M4/139	COMPOUND NANO MATERIAL OF GRAPHENE AND MOS2 AND PREPARATION METHOD THEREOF
CN102142539 A 20110803	CN20111046526 20110225	UNIV ZHEJIANG	H01M4/13; H01M4/139	ELECTROCHEMICAL INSERTION/DEINSERTION MAGNESIUM ION ELECTRODE WITH HIGH CAPACITY AND STABLE CIRCULATION AND PREPARATION METHOD
CN102142549 A 20110803	CN20111046471 20110225	UNIV ZHEJIANG	H01M4/36; B82Y30/00; B82Y40/00; H01M4/139	GRAPHENE NANO SHEET AND SNS2 COMPOSITE NANO MATERIAL AND SYNTHESIS METHOD THEREOF
CN102142551 A 20110803	CN20111046542 20110225	UNIV ZHEJIANG	H01M4/36; B82Y30/00; B82Y40/00	GRAPHENE NANO SHEET/MOS2 COMPOSITE NANO MATERIAL AND SYNTHESIS METHOD THEREOF
CN102142558 A 20110803	CN20111046545 20110225	UNIV ZHEJIANG	H01M4/583; H01M4/1393	GRAPHENE/MOS2 GRAPHENE AND AMORPHOUS CARBON COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102142537 A 20110803	CN20111046455 20110225	UNIV ZHEJIANG	H01M4/13	GRAPHENE/MOS2 COMPOUND NANO MATERIAL LITHIUM ION BATTERY ELECTRODE AND PREPARATION METHOD THEREOF
CN102142541 A 20110803	CN20111046491 20110225	UNIV ZHEJIANG	H01M4/136; H01M4/1397; H01M4/58; H01M4/62	HIGH CAPACITY AND STABLE CYCLIC PERFORMANCE LITHIUM ION BATTERY ELECTRODE AND PREPARATION METHOD THEREOF
CN102208638 A 20111005	CN20111105215 20110426	UNIV ZHEJIANG	H01M4/48; H01M4/131; H01M4/1391; H01M10/0525	HIGH-CAPACITY LITHIUM ION BATTERY CATHODE COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF
CN102142538 A 20110803	CN20111046460 20110225	UNIV ZHEJIANG	H01M4/13; H01M4/139	LITHIUM ION BATTERY ELECTRODE MADE OF GRAPHENE/ MOS2 AND AMORPHOUS CARBON AND PREPARATION METHOD
CN102142540 A 20110803	CN20111046456 20110225	UNIV ZHEJIANG	H01M4/136; H01M4/1397; H01M4/62	LITHIUM ION BATTERY ELECTRODE MADE OF GRAPHENE/SNS2 COMPOSITE NANOMETER MATERIAL AND PREPARATION METHOD THEREOF
CN102185144 A 20110914	CN20111083728 20110402	UNIV ZHEJIANG	H01M4/48; H01M4/1391; H01M4/62	METAL OXIDE/GRAPHENE COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF
CN102214515 A 20111012	CN20111068703 20110322	UNIV ZHEJIANG	H01G9/042	METHOD FOR MANUFACTURING ACTIVATED CARBON/CARBON NANOTUBE COMPOSITE ELECTRODE FOR SUPER CAPACITOR
CN102231436 A 20111102	CN20111133110 20110520	UNIV ZHEJIANG	H01M4/1395; H01M4/38	PREPARATION METHOD OF SN-SB/GRAPHENE NANO-COMPOSITE MATERIAL
CN102185143 A 20110914	CN20111083375 20110402	UNIV ZHEJIANG	H01M4/48; H01M4/1391; H01M4/62	TRANSITION METAL OXIDE/ GRAPHENE COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF



Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102185145 A 20110914	CN20111083740 20110402	UNIV ZHEJIANG	H01M4/48; H01M4/131; H01M4/1391; H01M4/62	TRANSITION METAL TRI-STIBIDE/GRAPHENE COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF
CN202050374U U 20111123	CN20112158613U 20110518	UPSOLAR SOLAR ENERGY TECHNOLOGY SHANGHAI CO LTD	H02N6/00; A61L2/03; A61L2/23; H02J7/00	CIRCUIT FOR SOLAR ENVIRONMENT-FRIENDLY CLEANING ARTICLE
WO2011149442 A1 20111201	WO2010US01522 20100524	UTC POWER CORP [US]; PATTERSON TIMOTHY [US]; O'NEIL JONATHAN [US]	H01M8/02; B60L11/18; B82B3/00; H01M8/10	FUEL CELL HAVING A HYDROPHILIC NANOPOROUS REGION
WO2011081619 A1 20110707	WO2009US69562 20091228	UTC POWER CORP [US]; SHAO MINHUA [US]	H01M4/92; B01J23/42; B01J23/44; B01J23/52; B01J37/02	PLATINUM-PALLADIUM CATALYST WITH INTERMEDIATE LAYER
WO2011099956 A1 20110818	WO2010US00414 20100212	UTC POWER CORP [US]; SHAO MINHUA [US]; MERZOUGUI BELABBES [US]; PROTSAILO LESIA V [US]	B82B3/00; B82B1/00; H01M4/92; H01M8/10	PLATINUM MONOLAYER ON ALLOY NANOPARTICLES WITH HIGH SURFACE AREAS AND METHODS OF MAKING
WO2011099955 A1 20110818	WO2010US00411 20100212	UTC POWER CORP [US]; SHAO MINHUA [US]; PROTSAILO LESIA V [US]	B82B1/00; B82B3/00; H01M4/92; H01M8/10	PLATINUM NANOPARTICLES HAVING HOLLOW SKELETAL STRUCTURES AND METHODS OF MAKING
WO2011099957 A1 20110818	WO2010US00415 20100212	UTC POWER CORP [US]; SHAO MINHUA [US]; PROTSAILO LESIA V [US]	B82B3/00; B82B1/00; H01M4/92; H01M8/10	PLATINUM MONOLAYER ON HOLLOW, POROUS NANOPARTICLES WITH HIGH SURFACE AREAS AND METHOD OF MAKING

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011210288 A1 20110901	US201113106196 20110512; US20070682339 20070306; US20060277746 20060328; US20050729932P 20051025; US20050666132P 20050328	VALENCE TECHNOLOGY INC	H01M4/58; C01B25/30; C01B25/37; H01M4/485	METHOD OF MAKING ACTIVE MATERIALS FOR USE IN SECONDARY ELECTROCHEMICAL CELLS
JP2011253742 A 20111215	JP20100127451 20100603	VISION DEV CO LTD	H01M4/96; H01M4/88; H01M4/90	CATALYST LAYER FOR FUEL CELL AND METHOD OF MANUFACTURING THE SAME
JP2011258457 A 20111222	JP20100133068 20100610	VISION DEV CO LTD	H01M4/587; C01B31/02; H01M4/133; H01M4/583	NEGATIVE ELECTRODE ACTIVE MATERIAL AND NEGATIVE ELECTRODE PLATE FOR LITHIUM ION SECONDARY BATTERY
US2011309310 A1 20111222	DE200810063552 20081205; WO2009EP08673 20091204	VOLKSWAGEN VARTA MICROBATTERY FORSCHUNGSGMBH & CO KG [DE]; VARTA MICROBATTERY GMBH [DE]	H01M4/583; B05D5/12	ELECTRODE-ACTIVE MATERIAL FOR ELECTROCHEMICAL ELEMENTS
RU2427052 C1 20110820	RU20100115539 20100419	VORON SPK BJURO RIKON OAO VSKB RIKON AOOT [RU]	H01G9/058; H01G9/155	ELECTRODE MATERIAL FOR ELECTRIC CAPACITOR, ITS MANUFACTURING METHOD, AND ELECTRIC SUPERCAPACITOR
US2011183234 A1 20110728	JP20080259416 20081006; WO2009JP67411 20091006	WAKIZAKA YASUAKI [JP]; SHISHIKURA TOSHIKAZU [JP]	H01M8/10; B01J27/26; C01G23/00; H01M4/58	PROCESS FOR PRODUCTION AND USE OF CARBONITRIDE MIXTURE PARTICLES OR OXYCARBONITRIDE MIXTURE PARTICLES

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011200881 A1 20110818	US201113023425 20110208; US20100305176P 20100217; US20100304176P 20100212	WANG CONNIE P [US]; LOPATIN SERGEY D [US]; BACHARACH ROBERT Z [US]	H01M4/485; B05D5/12; H01M4/26	ELECTRODE FOR HIGH PERFORMANCE LI- ION BATTERIES
TWM411674U U 20110911	TW100202450U 20110201	WANG JIU [TW]	H01M8/22	HIGH-POWER NANO HYDROLYSIS FUEL CELL
US2011223480 A1 20110915	US200913062897 20090907; US20080095090P 20080908; WO2009SG00318 20090907	WEE TSYH YING GRACE [SG]; PHONTHAMMACHAI NOPPHAWAN [SG]; SRINIVASAN MADHAVI [SG]; MHAISALKAR SUBODH [SG]; BOEY YIN CHIANG FREDDY [SG]	H01M4/48; B05D5/12; B32B5/16; C25B11/04; H01B1/02; H01B1/08; H01L39/24; H05H1/24	NANOPARTICLE DECORATED NANOSTRUCTURED MATERIAL AS ELECTRODE MATERIAL AND METHOD FOR OBTAINING THE SAME
CN102157728 A 20110817	CN20111067780 20110322	XI AN YINTAI NEW ENERGY MATERIAL TECHNOLOGY CO LTD; HUI WANG	H01M4/1393	METHOD OF PREPARING GRAPHENE IN- SITU MODIFIED GRAPHITE CARBON ELECTRODE MATERIAL FOR LITHIUM-ION BATTERY
US2011236769 A1 20110929	US201113070158 20110323; US20100316641P 20100323	XIE XING [US]; HU LIANGBING [US]; CUI YI [US]; CRIDDLE CRAIG S [US]	H01M8/16	THREE DIMENSIONAL ELECTRODES USEFUL FOR MICROBIAL FUEL CELLS
CN102222789 A 20111019	CN20101145083 20100413	XINXIANG JINGUANNENG NEW ENERGY MATERIAL CO LTD	H01M4/1393; H01M4/36	HIGH-POWER MODIFIED-CARBON COMPOSITE MATERIAL FOR ELECTRIC MOTOR CAR AND PREPARATION METHOD THEREOF
US2011170236 A1 20110714	US201113006347 20110113; US20100294773P 20100113	YOUNG KARL S [US]	H01G9/016	SUPERCAPACITORS USING NANOTUBE FIBERS AND METHODS OF MAKING THE SAME

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
US2011287337 A1 20111124	KR20090007202 20090130; WO2009KR04037 20090721	YU YEON TAE [KR]	H01M8/10; C25D5/18; H01M4/86	METHOD FOR PULSE PLATING CARBON BLACK SHEET WITH METALLIC NANO PARTICLE THIN FILM LAYER, AND CARBON BLACK SHEET AND FUEL CELL POLYMER ELECTROLYTE MEMBRANE/ELECTRODE ASSEMBLY PREPARED USING SHEET
US2011183180 A1 20110728	US20100657579 20100125	YU ZHENNING [US]; SHI JINJUN [US]; LIU CHEN-GUANG [US]; JANG BOR Z [US]; ZHAMU ARUNA [US]	H01M4/133; H01G9/00	FLEXIBLE ASYMMETRIC ELECTROCHEMICAL CELLS USING NANO GRAPHENE PLATELET AS AN ELECTRODE MATERIAL
CN102240545 A 20111116	CN20111107203 20110428	YUCHEN ADVANCED ENERGY MATERIALS & TECHNOLOGY WUXI CO LTD	B01J23/42; H01M4/92	METHOD FOR PREPARING NANOMETER PT (PLATINUM) PARTICLE CATALYST WITH NANOMETER TUBES AS CARRIERS
US2011165462 A1 20110707	US20100655746 20100107	ZHAMU ARUNA [US]; JANG BOR Z [US]	H01M4/58; H01M4/00	ANODE COMPOSITIONS FOR LITHIUM SECONDARY BATTERIES
US2011165466 A1 20110707	US20100655597 20100104	ZHAMU ARUNA [US]; JANG BOR Z [US]; YU ZHENNING [US]	H01M4/58; H01M10/04	LITHIUM METAL-SULFUR AND LITHIUM ION-SULFUR SECONDARY BATTERIES CONTAINING A NANO-STRUCTURED CATHODE AND PROCESSES FOR PRODUCING SAME
US2011236737 A1 20110929	US201113153659 20110606; JP20050166509 20050607; JP20050166510 20050607; US20100776533 20100510; US20060447986 20060607	ZHAO JINBAO [JP]; KOJIMA ERI [JP]	H01M10/02; H01M2/02; H01M2/08; H01M4/131; H01M4/133; H01M4/134; H01M4/48; H01M4/485; H01M4/50; H01M4/505; H01M10/0564; H01M10/0567; H01M10/058; H01M10/0585	NON-AQUEOUS SECONDARY BATTERY

Número do Documento	Prioridade(s)	Depositante(s)	Classificação Internacional de Patentes	Título
CN102231431 A 20111102	CN20111116065 20110506	ZHEJIANG DADONGNAN GROUP CO LTD	H01M2/16; B32B27/02; B32B27/08; B32B27/18; B32B27/32; B32B27/36	COMPOUND NANOFIBER DIAPHRAGM FOR LITHIUM ION POWER BATTERY AND MANUFACTURING METHOD
CN102208621 A 20111005	CN20111100973 20110421	ZHEJIANG MEISI LITHIUM TECHNOLOGY CO LTD	H01M4/1397; H01M4/62	PREPARATION METHOD OF NANOSCALE LITHIUM IRON PHOSPHATE FOR INDUSTRIAL PRODUCTION
CN102263243 A 20111130	CN20111167445 20110621	Zhejiang University	H01M4/1395; B82Y40/00	PREPARATION METHODS FOR ARRAYED NICKEL SILICON NANOWIRE AND NICKEL SILICON-SILICON CORE-SHELL NANOWIRE
CN102214816 A 20111012	CN20111046444 20110225	ZHEJIANG ZHENLONG BATTERY CO LTD	H01M4/133; H01M4/1393	GRAPHENE/WS2 NANOCOMPOSITE ELECTRODE OF LITHIUM ION BATTERY AND MANUFACTURING METHOD THEREOF
CN201898168U U 20110713	CN20102504653U 20100825	ZHIPING ZHANG	H01M2/20; H01M2/02	TITANIUM ALLOY NANOMETER MODIFIED POWER STORAGE BATTERY
WO2011117657 A2 20110929	CN20101133489 20100326; CN20101204539 20100622	ZHU SHENMIN [CN]; ZHANG DI [CN]; LIU QINGLEI [CN]; ZHANG WANG [CN]; GU JIAJUN [CN]; UNIV SHANGHAI JIAOTONG [CN]; MORGAN CRUCIBLE CO [GB]	C01B31/00	CARBON MATERIALS COMPRISING NANO STRUCTURES
CN201927490U U 20110810	CN20102651194U 20101210	ZICHEN ZHAO	H01G9/048; H01G9/20; H01L51/44; H01M14/00	LIGHT POSITIVE POLE STRUCTURE OF DYE SENSITIZATION SOLAR BATTERY
DE202010017389U U1 20111212	DE201020017389U 20101015	ZOZ GMBH [DE]	C01B3/00; H01M8/06	VERWENDUNG EINES METALLHYDRIDS, TANK UNDSYSTEM FÜR DAS METALLHYDRID

## ANEXO I - Códigos dos Principais Países

<b>Código</b>	<b>País</b>	<b>Código</b>	<b>País</b>
<b>AR</b>	Argentina	<b>IN</b>	Índia
<b>AT</b>	Áustria	<b>IS</b>	Islândia
<b>AU</b>	Austrália	<b>IT</b>	Itália
<b>BE</b>	Bélgica	<b>JP</b>	Japão
<b>BG</b>	Bulgária	<b>KR</b>	República Da Coreia
<b>BR</b>	Brasil	<b>LU</b>	Luxemburgo
<b>BS</b>	Bahamas	<b>LV</b>	Letônia
<b>CA</b>	Canadá	<b>MA</b>	Marrocos
<b>CH</b>	Suíça	<b>MD</b>	Republica Moldova
<b>CN</b>	China	<b>MX</b>	México
<b>CZ</b>	República Tcheca	<b>NL</b>	Holanda
<b>DE</b>	Alemanha	<b>NO</b>	Noruega
<b>DK</b>	Dinamarca	<b>NZ</b>	Nova Zelândia
<b>DZ</b>	Argélia	<b>OA</b>	African Intellectual Property Organization (OAPI) <sup>1</sup>
<b>EA</b>	Organização de Patentes da Eurásia (EAPO) <sup>1</sup>	<b>PH</b>	Filipinas
<b>EE</b>	Estônia	<b>PL</b>	Polônia
<b>EG</b>	Egito	<b>PT</b>	Portugal
<b>EP</b>	Escritório Europeu de Patentes (EPO) <sup>1</sup>	<b>RO</b>	Romênia
<b>ES</b>	Espanha	<b>RU</b>	Federação Russa
<b>FI</b>	Finlândia	<b>SE</b>	Suécia
<b>FR</b>	França	<b>SG</b>	Singapura
<b>GB</b>	Reino Unido	<b>SI</b>	Eslovênia
<b>GR</b>	Grécia	<b>SK</b>	Eslováquia
<b>HK</b>	Região Administrativa Especial de Hong Kong Da República Popular da China	<b>TR</b>	Turquia
<b>HR</b>	Croácia	<b>TW</b>	Taiwan
<b>HU</b>	Hungria	<b>UA</b>	Ucrânia
<b>IB</b>	International Bureau <sup>2</sup>	<b>US</b>	Estados Unidos
<b>ID</b>	Indonésia	<b>WO</b>	Organização Mundial de Propriedade Intelectual (WIPO) <sup>2</sup>
<b>IE</b>	Irlanda	<b>ZA</b>	África do Sul
<b>IL</b>	Israel		

Fonte: <http://www.wipo.int/export/sites/www/scit/en/standards/pdf/030301.pdf>, acesso: março 2008

<sup>1</sup> Organização intergovernamental encarregado de emitir títulos de proteção dos direitos de propriedade industrial e de prestar serviços relacionados com a propriedade industrial para cada um dos Estados-membros.

<sup>2</sup> O código “WO” é utilizado para a publicação internacional dos pedidos depositados via Tratado de Cooperação em Matéria de Patentes (PCT) em qualquer um dos escritórios nacionais dos países receptores deste Acordo. O código “IB” é utilizado para os pedidos depositados via PCT no escritório da Organização Mundial da Propriedade Intelectual (OMPI) atuando como entidade receptora do PCT.

## **ANEXO II - Pedidos de patente sem nome do depositante indexado**

JP4837822B2

JP2011523902

JP2011526655