505688683 09/24/2019

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5735493

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
A123 SYSTEMS, INC.	08/16/2012

### **RECEIVING PARTY DATA**

Name:	WANXIANG AMERICA CORPORATION
Street Address:	88 AIRPORT ROAD
City:	ELGIN
State/Country:	ILLINOIS
Postal Code:	60123

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15640260

### **CORRESPONDENCE DATA**

Fax Number: (971)271-8021

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 971-271-8020

Email: PatentComm@mccrus.com MCCOY RUSSELL LLP Correspondent Name:

Address Line 1: 806 S.W. BROADWAY, SUITE 600 Address Line 4: PORTLAND, OREGON 97205

ATTORNEY DOCKET NUMBER:	A123143051DIV2
NAME OF SUBMITTER:	ASHLEY R. TAPIA
SIGNATURE:	/Ashley R. Tapia/
DATE SIGNED:	09/24/2019

### **Total Attachments: 24**

source=(1) Patent Security Agreement - A123 Systems Inc to Wanxiang America Co (executed) 8-16-12#page1.tif source=(1) Patent Security Agreement - A123 Systems Inc to Wanxiang America Co (executed) 8-16-12#page2.tif source=(1) Patent Security Agreement - A123 Systems Inc to Wanxiang America Co (executed) 8-16-12#page3.tif source=(1) Patent Security Agreement - A123 Systems Inc to Wanxiang America Co (executed) 8-16-12#page4.tif source=(1) Patent Security Agreement - A123 Systems Inc to Wanxiang America Co (executed) 8-16-12#page5.tif source=(1) Patent Security Agreement - A123 Systems Inc to Wanxiang America Co (executed) 8-16-12#page6.tif

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### CONFIRMATORY GRANT OF SECURITY INTEREST IN UNITED STATES PATENTS

THIS CONFIRMATORY GRANT OF SECURITY INTEREST IN UNITED STATES PATENTS (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "<u>Confirmatory Grant</u>") is made effective as of August 16, 2012 by and from A123 SYSTEMS, INC., a Delaware corporation (the "<u>Grantor</u>"), to and in favor of WANXIANG AMERICA CORPORATION, as Lender (as defined in the Loan Agreement referenced below) (the "<u>Grantee</u>").

WHEREAS, the Grantor and Grantee have entered into a Loan Agreement dated as of the date hereof (as may be amended, restated, supplemented or otherwise modified from time to time, the "Loan Agreement").

WHEREAS, the Grantor and the Subsidiaries of the Grantor have entered into a Pledge and Security Agreement dated as of the date hereof (as may be amended, restated, supplemented or otherwise modified from time to time, the "Security Agreement").

WHEREAS, the Grantor owns the patents as listed on <u>Exhibit A</u> attached hereto (the "<u>Patents</u>"), which Patents are pending or registered with the United States Patent and Trademark Office.

WHEREAS, this Confirmatory Grant has been granted in conjunction with the security interest granted under the Security Agreement to Grantee. The rights and remedies of Grantee with respect to the security interest granted herein are without prejudice to and are in addition to those set forth in the Security Agreement and the other Loan Documents, all terms and provisions of which are incorporated herein by reference. In the event that any provisions of this Confirmatory Grant are deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall govern.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is hereby agreed that:

1) <u>Definitions</u>. All capitalized terms not defined herein shall have the respective meaning given to them in the Security Agreement.

### 2) The Security Interest.

- (a) This Confirmatory Grant is made to secure the performance and payment of all the Secured Obligations. Upon the payment in full of all Secured Obligations (other than contingent indemnification obligations), Grantee shall promptly, upon such satisfaction, execute, acknowledge, and deliver to the Grantor all reasonably requested instruments in writing confirming the release of the security interest in the Patents acquired under the Security Agreement and this Confirmatory Grant.
- (b) The Grantor hereby grants to Grantee a security interest in (1) all of the Grantor's right, title and interest in and to the Patents now owned or from time to time after the date hereof owned or acquired by the Grantor, together with (2) all proceeds of such Patents and (3) all causes of action arising prior to or after the date hereof for infringement of such Patents or unfair competition regarding the same.
- 3) <u>Counterparts</u>. This Confirmatory Grant may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be

an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.

4) <u>Governing Law.</u> This Confirmatory Grant and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of New York.

\*\*\*\*\*

IN WITNESS WHEREOF, the Grantor has executed this Confirmatory Grant effective as of the date first written above.

A123 SYSTEMS, INC.

Name: David P. Vieau
Title: President + CEO

**REEL: 050481 FRAME: 0170** 

# CONFIRMATORY GRANT OF SECURITY INTEREST IN UNITED STATES PATENTS

Exhibit A - SCHEDULE OF PATENTS

August 7, 2012

# **Intellectual Property Rights - Patents**

1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1004	1003	1003	1003	1002	1001	1000	1000	1000	1000	1000	A123 Case Number
3	2	_	22	1																	A123 SubCase
United States	United States	United States	Korea	Korea	Japan	India	Europe	China	Canada	United States	United States	Japan	Europe	United States	United States	United States	United Kingdom	Japan	Germany	Europe	Country
Jointly Owned (MIT)	T/J Tech	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner									
Granted	Granted	Granted	Pending	Pending	Pending	Granted	Pending	Granted	Pending	Granted	Granted	Granted	Pending	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Status
CON	CON	유	DIV	DIV	PCT	РСТ	PCT	PCT	РСТ	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	CaseType
886035	12/512421	10/206662	10-2012-7008431	10-2009-7016254	2003-517975	118/KOLNP/2004	02768358.0	02818181.6	2455819	09/454,571	09/315,169	2000-551449	99923275.4	09/253,965	08/818,337	08/354,289	95943721.1	8-519,174	95943721.1	095943721.1	App. No.
9/20/2010	7/30/2009	7/26/2002	7/26/2002	7/26/2002	7/26/2002	7/26/2002	7/26/2002	7/26/2002	7/26/2002	12/7/1999	5/20/1999	5/21/1999	5/21/1999	2/22/1999	3/14/1997	12/12/1994	12/11/1995	12/11/1995	12/11/1995	12/11/1995	Filing Date
7988746	8168326	7579112			4619000	222130		ZL02818181.6		6524744	6190802	4712970		6297185	5888669	5680292	808507	3900303	69532172.2	0808507-B	Pat No.
8/2/2011	5/1/2012	8/25/2009			11/5/2010	7/23/2008		3/24/2010		2/25/2003	2/20/2001	4/1/2011		10/2/2001	3/30/1999	10/21/1997	12/11/2005	1/12/2007		11/19/2003	Pat. Date
BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	ELECTROCHEMICAL DEVICE AND METHOD FOR PRODUCING THE SAME	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	Multi-Phase Material And Electrodes Made Therefrom	Transition Metal Based Ceramic Material And Electrodes Fabricated Therefrom	Transition Metal Based Ceramic Material And Electrodes Fabricated Therefrom	Transition Metal Based Ceramic Material And Electrodes Fabricated Therefrom	Catalyst	Transition Metal-Based Ceramic Material And Articles Fabrication Therefrom	High Surface Area Nitride, Carbide And Boride Electrodes And Methods Of Fabrication Thereof	High Surface Area Nitride, Carbide, And Boride Electrodes And Methods Of Fabrication Thereof	High Surface Area Nitride, Carbide, And Boride Electrodes And Methods Of Fabrication Thereof	High Surface Area Nitride, Carbide, And Boride Electrodes And Methods Of Fabrication Thereof	High Surface Area Nitride, Carbide And Boride Electrodes And Methods Of Fabrication Thereof	AppTitle
Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Daryl Clerc, Matthew Fay, Jennifer Groff, Michael Wixom		Daryl Clerc, Matthew Fay, Levi Thompson, Michael Wixom	Daryl Clerc, Matthew Fay, Levi Thompson, Michael Wixom	Levi T. Thompson, Michael Wixom, David Tarnowski, Cong Pu	Levi T. Thompson, Jr., Michael R. Wixom	Levi T. Thompson, Jr., Michael R. Wixom, Jeffery M. Parker	Levi T. Thompson, Jr., Michael R. Wixom, Jeffery M. Parker	Levi T. Thompson, Jr., Michael R. Wixom, Jeffery M. Parker	Levi T. Thompson, Jr., Michael R. Wixom, Jeffery M. Parker	Levi T. Thompson, Jr., Michael R. Wixom, Jeffery M. Parker	Inventor

1019	1018	1018	1017	1016	1015	1015	1015	1014	1014	1014	1013	1013	1012	1011	1010	1010	1008	1007	1006	1005	1005	1005	1005	1005	1005	A123 Case Number
			1			2	1				1				1	2	_			9	8	7	6	5	4	A123 SubCase
United States	United States	Korea	United States	Korea	United States	United States	United States	United States	Korea	China	United States	Japan	Korea	United States	United States	United States	United States	Korea	Korea	United States	Country					
A123-owned	Enerland	Enerland	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Jointly Owned (MIT)	Jointly Owned (MIT)	Jointly Owned (MIT)	Licensed (MIT)	Jointly Owned (MIT)	Jointly Owned (MIT)	Owner
Granted	Granted	Granted	Granted	Granted	Granted	Pending	Granted	Granted	Granted	Granted	Granted	Pending	Granted	Granted	Granted	Pending	Granted	Granted	Granted	Pending	Pending	Pending	Pending	Granted	Granted	Status
ORD	PCT	ORD	ORD	ORD	CIP	DIV	DIV	PCT	ORD	PCT	CON	PCT	ORD	ORD	ORD	ORD	ORD	ORD	ORD	CIP	CIP	CIP	CIP	CIP	DIV	CaseType
11/035,172	10/567243	10-2003-000054336	10/876179	10-2003-0026294	10/354673	13/299562	12/140058	10/543352	10-2003-0005350	200480002940.9	11/159989	2004-562580	10-2002-0075768	10/719,582	10/628681	12/816644	10/354405	10-2002-0028784	10-2001-0063761	13/549064	13/472351	12/692,460	12/886,066	12/891637	13/169423	App. No.
1/13/2005	2/6/2006	8/6/2003	6/23/2004	4/25/2003	1/30/2003	18-Nov-2011	6/16/2008	7/26/2005	1/27/2003	1/27/2004	6/23/2005	12/23/2003	12/2/2002	11/21/2003	7/28/2003	6/16/2010	1/30/2003	5/23/2002	10/16/2001	6/13/2012	5/15/2012	1/22/2010	9/20/2010	9/27/2010	6/27/2011	Filing Date
7208437	0508557	0523728	7318982	0555848	7387851		8088512	8067112	0509437	CN100359746	8003250		0509435	6878475	7763382	206868/09	7087348	0459871	0413608					7662265	8206469	Pat. No.
4/24/2007	7/7/2009	10/18/2005	1/15/2008	2/21/2006	6/17/2008		1/3/2012	11/29/2011	8/12/2005	1/2/2008	8/23/2011		8/12/2005	4/12/2005	7/27/2010	7/26/2002	8/8/2006	11/24/2004	12/18/2003	7/27/2001	7/27/2001			2/24/2011	6/26/2012	Pat. Date
Catalyst And Method For Its Manufacture	SUPERCAPACITOR WITH REDUCED INTERNAL RESISTANCE	SUPERCAPACITOR WITH REDUCED INTERNAL RESISTANCE	POLYMER COMPOSITION FOR ENCAPSULATION OF ELECTRODE PARTICLES	METHOD FOR MANUFACTURING STACKED TYPE LITHIUM SECONDARY BATTERY BY ATTACHING ELECTRODE PLATES IN ONE DIRECTION	BATTERY STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES AND RELATED METHODS	STACKED LITHIUM SECONDARY BATTER AND ITS FABRICATION	STACKED LITHIUM SECONDARY BATTER AND PREPARATION METHOD THEREOF	STACKED LITHIUM SECONDARY BATTER AND ITS FABRICATION	HIGH ENERGY AND POWER DENSITY ELECTROCHEMICAL CELLS	HIGH ENERGY AND POWER DENSITY ELECTROCHEMICAL CELLS	LITHIUM SECONDARY BATTER AND PREPARATION METHOD THEREOF	Membrane For Fuel Cell, And Fuel Cell Incorporating That Membrane	BIPOLAR ARTICLES AND RELATED METHODS	BIPOLAR ARTICLES AND RELATED METHODS	COATED ELECTRODE PARTICLES FOR COMPOSITE ELECTRODES AND ELECTROCHEMICAL CELLS	NONAQUEOUS ELECTROLYTE COMPOSITION FOR BATTER OR CONDENSER	SEPARATOR FOR LITHIUM ION SECONDARY BATTER, METHOD FOR PRODUCING THE SAME, AND LITHIUM ION SECONDARY BATTERY COMPRISING THE SAME	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	BATTERY STRUCTURES, SELF-ORGANIZING STRUCTURES AND RELATED METHODS	АррТіію				
Devon Renock, Intae Bae, Pu Zhang, Timothy K. Sendek, Elizabeth Mueller, Hanwei Lei	Seongwoo Park, Whanjin Roh	Seongwoo Park, Whanjin Roh	Anthony E Pullen, Andrew Loxley, Antoni S Gozdz	Hwan-Jin Noh	Antoni S. Gozdz, Andrew Loxley, Richard K Holman, Ronny Wilkins	Antoni S. Gozdz, Andrew Loxley, Richard K Holman, Ronny Wilkins	Antoni S. Gozdz, Andrew Loxley, Richard K Holman, Ronny Wilkins	Whan Jin Roh	Hwan-Jin Noh	Whan Jin Roh	Yet-Ming Chiang, Antoni S. Gozdz, Gilbert N Riley, Jr.	Yet-Ming Chiang, Antoni S. Gozdz, Gilbert N Riley, Jr.	Whan Jin Roh	Michael Wixom, Hanwei Lei, Pu Zhang, Junqing Ma	Gilbert N. Riley, Yet-Ming Chiang, Antoni S. Gozdz, Ric Fulop, Michael S. Viola	Gilbert N. Riley, Yet-Ming Chiang, Antoni S. Gozdz, Ric Fulop, Michael S. Viola	Yet-Ming Chiang, Anton' S. Gozdz, Andrew Loxley, Richard K Holman, Gilbert N. Riley, Jr., Michael S Viola, Benjamin Nunes, Michele Ostraat	Hwan-Jin Noh	Hwan-Jin Noh	William Moorehead, Yet-Ming Chiang	Michael S Viola, William Moorehead, Gilbert N. Riley, Jr., Antoni S. Gozdz, Richard K Holman, Andrew Loxley, Yet-Ming Chiang	Inventor				

1025	1025	1025	1023	1023	1023	1023	1023	1023	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1021	1021	1021	1020	A123 Case Number
			1						ယ	3	2	1														A123 SubCase
Germany	China	Canada	United States	Taiwan	Japan	India	China	Australia	United States	United States	United States	United States	Taiwan	Korea	Japan	Hong Kong	Germany	Europe	China	Canada	Australia	United States	Japan	Europe	United States	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Granted	Pending	Granted	Pending	Pending	Pending	Granted	Pending	Granted	Granted	Granted	Granted	Pending	Pending	Pending	Pending	Granted	Granted	Pending	Pending	Granted	Granted	Granted	Pending	Granted	Status
PCT	PCT	PCT	ORD	ORD	PCT	РСТ	PCT	PCT	CON	CON	CON	ORD	ORD	PCT	PCT	ORD	EPO	PCT	PCT	PCT	PCT	ORD	ORD	ORD	ORD	CaseType
112005002725.2	200580041436.4	2586237	11/117157	94113816	2007-510999	3222/KOLNP/2006	200580018485.6	2005241927	12/880558	11/839947	11/076556	11/052971	94104241	10-2006-7017938	2006-552287	07100708.6	05722761.3	05722761.3	200580000019.5	2555521	2005213420	10/766,385	2006-503129	04706469.6	10/759,348	App. No.
11/2/2005	11/2/2005	11/2/2005	4/28/2005	4/29/2005	4/28/2005	4/28/2005	4/28/2005	4/28/2005	13-Sep-2010	8/16/2007	3/9/2005	2/7/2005	2/14/2005	2/7/2005	2/7/2005	1/19/2007	2/7/2005	2/7/2005	2/7/2005	2/7/2005	2/7/2005	1/28/2004	1/29/2004	8/25/2005	1/16/2004	Filing Date
	ZL200580041436.4		7867651				ZL200580018485.6	2005241927	8080338	7799461	7261979	7348101					1 716 610	EP 1716610			2005213420	7326494	4786527		7169328	Pat No.
	11/11/2009		1/11/2011				9/16/2009	2/10/2011	12/20/2011	9/21/2010	8/28/2007	3/25/2008					8/24/2011	8/24/2011			2/7/2011	2/5/2008	7/22/2011		1/30/2007	Pat. Date
METHOD FOR MAKING A COMPOSITE  ELECTRODE MATERIAL	METHOD FOR MAKING A COMPOSITE  ELECTRODE MATERIAL	METHOD FOR MAKING A COMPOSITE ELECTRODE MATERIAL	LOW IMPEDANCE LAYERED BATTERY APPARATUS AND METHOD FOR MAKING THE SAME	LOW IMPEDANCE LAYERED BATTERY APPARATUS AND METHOD FOR MAKING THE SAME	LOW IMPEDANCE LAYERED BATTERY APPARATUS AND METHOD FOR MAKING THE SAME	LOW IMPEDANCE LAYERED BATTERY APPARATUS AND METHOD FOR MAKING THE SAME	LOW IMPEDANCE LAYERED BATTERY APPARATUS AND METHOD FOR MAKING THE SAME	LOW IMPEDANCE LAYERED BATTERY APPARATUS AND METHOD FOR MAKING THE SAME	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY	Composite Material And Electrodes Made Therefrom	Composite Material And Electrodes Made Therefrom	Composite Material And Electrodes Made Therefrom	Multiphase Nanocomposite Material And Method For Its Manufacture	ΑρρΤτίle
Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Gilbert N Riley, James Ribordy	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Gillbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Yet-Ming Chiang	Liya Wang, Chuanjing Xu, John M. Miller	Liya Wang, Chuanjing Xu, John M. Miller	Liya Wang, Chuanjing Xu, John M. Miller	John Miller, Liya Wang	Inventor					

1034	1034	1034	1034	1034	1034	1033	1033	1033	1033	1033	1033	1033	1031	1028	1027	1027	1027	1027	1027	1027	1027	1027	1027	1025	1025	1025	1025	A123 Case Number
						2	_								ω	2	1							1				A123 SubCase
Taiwan	Korea	Japan	India	Europe	China	United States	United States	Taiwan	Korea	Japan	Europe	China	Korea	Korea	United States	United States	United States	Korea	Japan	India	Germany	China	Canada	United States	Korea	Japan	India	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Pending	Pending	Pending	Pending	Granted	Granted	Granted	Pending	Pending	Pending	Pending	Pending	Granted	Granted	Pending	Granted	Granted	Pending	Pending	Pending	Pending	Pending	Pending	Granted	Pending	Pending	Pending	Status
ORD	PCT	PCT	PCT	PCT	PCT	ORD	ORD	ORD	PCT	PCT	PCT	PCT	UTM	ORD	ORD	ORD	ORD	PCT	PCT	PCT	PCT	PCT	PCT	ORD	PCT	PCT	PCT	CaseType
95132535	10-2008-7007596	2008-529369	976/KOLNP/2008	06814143.1	200680039326.9	13/087645	11/396515	95129015	10-2008-7005568	2008-536570	06851633.5	200680035978.5	20-2005-0016825	10-2005-0031294	13/449938	12/955091	11/345962	10-2007-7020020	2007-554308	6808/DELNP/2007	112006000326.7	200680010541.6	2596809	11/261349	10-2007-7010945	2007-540397	3770/DELNP/2007	App. No.
9/4/2006	9/1/2006	9/1/2006	9/1/2006	9/1/2006	9/1/2006	4/15/2011	4/3/2006	8/8/2006	8/3/2006	8/3/2006	8/3/2006	8/3/2006	6/13/2005	4/15/2005	4/18/2012	11/29/2010	2/2/2006	2/3/2006	2/3/2006	2/3/2006	2/3/2006	2/3/2006	2/3/2006	10/28/2005	11/2/2005	11/2/2005	11/2/2005	Filing Date
					ZL200680039326.9	8057936	7939201						0394701	0700711		8187753	7842420							7282301				Pat No.
						11/15/2011	5/10/2011						8/29/2005	3/21/2007		5/29/2012	11/30/2010							10/16/2007				Pat. Date
BATTERY CELL DESIGN AND METHOD OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHOD OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHOD OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHOD OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHOD OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHOD OF ITS CONSTRUCTION	NANOSCALE ION STORAGE MATERIALS	LITHIUM SECONDARY BATTERY HAVING ANODE LEAD AND CATHODE LEAD OPPOSITIVELY PROJECTED FROM POUCH	HYBRID ELECTRICAL ENERGY STORAGE SYSTEM WITH 4V GRADE OF OPERATION VOLTAGE	ELECTRODE MATERIAL WITH ENHANCED IONIC TRANSPORT PROPERTIES	ELECTRODE MATERIAL WITH ENHANCED IONIC	ELECTRODE MATERIAL WITH ENHANCED IONIC	ELECTRODE MATERIAL WITH ENHANCED IONIC TRANSPORT PROPERTIES	ELECTRODE MATERIAL WITH ENHANCED IONIC TRANSPORT PROPERTIES	ELECTRODE MATERIAL WITH ENHANCED IONIC TRANSPORT PROPERTIES	METHOD FOR MAKING A COMPOSITE  ELECTRODE MATERIAL	METHOD FOR MAKING A COMPOSITE  RELECTRODE MATERIAL	METHOD FOR MAKING A COMPOSITE  ELECTRODE MATERIAL	METHOD FOR MAKING A COMPOSITE  ELECTRODE MATERIAL	AppTitle:									
Jonah S Myerberg, Donald G Dafoe, Hung-Chieh Shiao, Grace S Chang, Andrew C Chu	Jonah S Myerberg, Donald G Dafoe, Hung-Chieh Shiao, Grace S Chang, Andrew C Chu	Jonah S Myerberg, Donald G Dafoe, Hung-Chieh Shiao, Grace S Chang, Andrew C Chu	Jonah S Myerberg, Donald G Dafoe, Hung-Chieh Shiao, Grace S Chang, Andrew C Chu	Jonah S Myerberg, Donald G Dafoe, Hung-Chieh Shiao, Grace S Chang, Andrew C Chu	Jonah S Myerberg, Donald G Dafoe, Hung-Chieh Shiao, Grace S Chang, Andrew C Chu	Yet-Ming Chiang, Antoni S. Gozdz, Martin W Payne	Hwan-Jin No, Byeong-Su Jeong, Seong-U Park	Myoung-Shin Hong, Whan Jin Roh, Seong-Woo Park, Dong Hwan Jang, Yeon Bok Jeong, Sung Cheul Park		Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Michael Wixom, Chuanjing Xu	Ιονεστίοι						

1038	1038	1038	1038	1038	1038	1038	1037	1036	1036	1036	1036	1036	1036	1036	1035	1035	1035	1035	1035	1035	1035	1034	1034	A123 Case Number
2	1							1														2	1	A123 SubCase
United States	United States	Taiwan	Korea	Japan	Europe	China	Korea	United States	Taiwan	Korea	Japan	India	Europe	China	United States	Taiwan	Korea	Japan	India	Europe	China	United States	United States	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner							
Pending	Granted	Pending	Pending	Pending	Pending	Pending	Granted	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Granted	Status						
CON	CIP	ORD	PCT	PCT	PCT	PCT	ORD	CIP	ORD	PCT	PCT	PCT	PCT	PCT	ORD	ORD	PCT	PCT	PCT	PCT	PCT	DIV	ORD	CaseType
13/446694	11/607525	95144934	10-2008-7016190	2008-543508	06844738.2	200680051496.9	10-2005-0087631	11/518974	95133413	10-2008-7008200	2008-530015	1060/KOLNP/2008	06814452.6	200680040767.0	11/515633	95132534	10-2008-7007581	2009-505349	1196/KOLNP/2008	06851818.2	200680039329.2	13/087645	11/515597	App. No.
4/13/2012	12/1/2006	12/4/2006	12/1/2006	12/1/2006	12/1/2006	12/1/2006	9/21/2005	9/11/2006	9/11/2006	9/11/2006	9/11/2006	9/11/2006	9/11/2006	9/11/2006	9/5/2006	9/4/2006	9/5/2006	9/5/2006	9/5/2006	9/5/2006	9/5/2006	4/15/2011	9/5/2006	Filing Date
	8158090						0639431																7927732	Pat No.
	4/17/2012						10/20/2006																4/19/2011	Pat: Date
AMORPHOUS AND PARTIALLY AMORPHOUS NANOSCALE ION STORAGE MATERIALS	AMORPHOUS AND PARTIALLY AMORPHOUS NANOSCALE ION STORAGE MATERIALS	AMORPHOUS AND PARTIALLY AMORPHOUS NANOSCALE ION STORAGE MATERIALS	AMORPHOUS AND PARTIALLY AMORPHOUS NANOSCALE ION STORAGE MATERIALS	AMORPHOUS AND PARTIALLY AMORPHOUS NANOSCALE ION STORAGE MATERIALS	AMORPHOUS AND PARTIALLY AMORPHOUS NANOSCALE ION STORAGE MATERIALS	AMORPHOUS AND PARTIALLY AMORPHOUS NANOSCALE ION STORAGE MATERIALS	HYBRID ELECTRIC ENERGY STORAGE SYSTEM EMPLYING ACTIVE CARBON ELECTRODE, CARBON ELECTRODE AND LITHIUM BATTERY, AND ITS METHOD	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY AND LOW IMPEDANCE GROWTH	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY AND LOW IMPEDANCE GROWTH	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY AND LOW IMPEDANCE GROWTH	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY AND LOW IMPEDANCE GROWTH	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY AND LOW IMPEDANCE GROWTH	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY AND LOW IMPEDANCE GROWTH	LITHIUM SECONDARY CELL WITH HIGH CHARGE AND DISCHARGE RATE CAPABILITY AND LOW IMPEDANCE GROWTH	NANOCOMPOSITE ELECTRODES AND RELATED DEVICES	BATTERY CELL DESIGN AND METHOD OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHOD OF ITS CONSTRUCTION	AppTite						
Yet-Ming Chiang, Nonglak Meethong, Anthony E Pullen	Hwan⊸lin Noh, Yeon Bok Jeong	Ricardo Fulop, Roger Lin, Andrew C. Chu, Gilbert N Riley, Jr., Yet-Ming Chiang, Antoni S Gozdz	Ricardo Fulop, Roger Lin, Andrew C. Chu, Gilbert N Riley, Jr., Yet-Ming Chiang, Antoni S Gozdz	Ricardo Fulop, Roger Lin, Andrew C. Chu, Gilbert N Riley, Jr., Yet-Ming Chiang, Antoni S Gozdz	Ricardo Fulop, Roger Lin, Andrew C. Chu, Gilbert N Riley, Jr., Yet-Ming Chiang, Antoni S Gozdz	Ricardo Fulop, Roger Lin, Andrew C. Chu, Gilbert N Riley, Jr., Yet-Ming Chiang, Antoni S Gozdz	Ricardo Fulop, Roger Lin, Andrew C. Chu, Gilbert N Riley, Jr., Yet-Ming Chiang, Antoni S Gozdz	Ricardo Fulop, Roger Lin, Andrew C. Chu, Gilbert N Riley, Jr., Yet-Ming Chiang, Antoni S Gozdz	Ronnie D Wilkins, Gung-Chieh Shiao, Antoni S Gozdz	Jonah S Myerberg, Donald G Dafoe, Hung-Chieh Shiao, Grace S Chang, Andrew C Chu	Jonah S Myerberg, Donald G Dafoe, Hung-Chieh Shiao, Grace S Chang, Andrew C Chu	Inventor												

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1048	1048	1048	1048	1046	1046	1046	1046	1046	1041	1040	1040	1040	1040	1040	1040	1039	1039	1039	1039	1039	1039	1039	A123 Case Number
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United States	Korea	Japan	India	United States	Korea	Japan	Europe	China	United States	United States	Taiwan	Korea	Japan	Europe	China	United States	Taiwan	Korea	Japan	Hong Kong	Europe	China	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Pending	Pending	Pending	Granted	Pending	Pending	Pending	Pending	Granted	Granted	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Status
ORD	ORD	ORD	ORD	ORD	РСТ	PCT	PCT	PCT	CIP	ORD	ORD	PCT	РСТ	PCT	PCT	ORD	ORD	РСТ	PCT	ORD	PCT	PCT	CaseType
11/554,051	10-2008-7013129	2008-539009	4307DELNP/2008	11/780296	10-2009-7002588	2009-520835	07796941.8	200780032386.2	11/748286	11/803424	96117301	10-2008-7030134	2009-511206	07783786.2	200780023208.3	11/803308	96116856	10-2008-7029055	2009-510194	09111096.1	07797450.9	200780023218.7	App. No
10/30/2006	5/30/2008	10/31/2006	5/21/2008	7/19/2007	7/19/2007	7/19/2007	7/19/2007	7/19/2007	5/14/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/14/2007	5/11/2007	5/14/2007	5/14/2007	5/14/2007	5/14/2007	5/14/2007	Filing Date
				7723955					8084158	7,990,101													Pat No.
				5/25/2010					12/27/2011	8/2/2011													Pat. Date
High Capacity Electrode And Methods For Its Fabrication And Use	High Capacity Electrode And Methods For Its Fabrication And Use	High Capacity Electrode And Methods For Its Fabrication And Use	High Capacity Electrode And Methods For Its Fabrication And Use	METHOD AND SYSTEM FOR MONITORING AND BALANCING CELLS IN BATTERY PACKS UTILIZING OPTICALLY COUPLED CELL VOLTAGE SELECTION SIGNAL, CELL VOLTAGE ISOLATION AMPLIFIER, AND ZENER DIODES IN BALANCING CIRCUIT	METHOD AND SYSTEM FOR MONITORING AND BALANCING CELLS IN BATTERY PACKS	METHOD AND SYSTEM FOR MONITORING AND BALANCING CELLS IN BATTERY PACKS	METHOD AND SYSTEM FOR MONITORING AND BALANCING CELLS IN BATTERY PACKS	METHOD AND SYSTEM FOR MONITORING AND BALANCING CELLS IN BATTERY PACKS	BATTERY CELL DESIGN AND METHOD OF ITS CONSTRUCTION	MULTI CONFIGURABLE SCALABLE, REDUNDANT BATTERY MODULE WITH MULTIPLE FAULT TOLERANCE	MULTI CONFIGURABLE SCALABLE, REDUNDANT BATTERY MODULE WITH MULTIPLE FAULT TOLERANCE	MULTI CONFIGURABLE SCALABLE, REDUNDANT BATTERY MODULE WITH MULTIPLE FAULT TOLERANCE	MULTI CONFIGURABLE SCALABLE, REDUNDANT BATTERY MODULE WITH MULTIPLE FAULT TOLERANCE	MULTI CONFIGURABLE SCALABLE, REDUNDANT BATTERY MODULE WITH MULTIPLE FAULT TOLERANCE	MULTI CONFIGURABLE SCALABLE, REDUNDANT BATTERY MODULE WITH MULTIPLE FAULT TOLERANCE	APPARATUS AND METHOD FOR PROCESSING A COATED SHEET	USE OF A HEATED BASE TO ACCELERATE REMOVAL OF COATED ELECTRODE IN THE PRESENCE OF A SOLVENT	APPARATUS AND METHOD FOR PROCESSING A COATED SHEET	APPARATUS AND METHOD FOR PROCESSING A COATED SHEET	APPARATUS AND METHOD FOR PROCESSING A COATED SHEET	APPARATUS AND METHOD FOR PROCESSING A COATED SHEET	APPARATUS AND METHOD FOR PROCESSING A COATED SHEET	AppTite
Biying Huang, Suresh Mani, Jun Q. Chin	Biying Huang, Suresh Mani, Jun Q. Chin	Biying Huang, Suresh Mani, Jun Q. Chin	Biying Huang, Suresh Mani, Jun Q. Chin	Akos Tolft, Nader Zaag	Akos Toth, Nader Zaag	Akos Toth, Nader Zaag	Akos Toth, Nader Zaag	Akos Toth, Nader Zaag	Gilbert N Riley, Jr., Andrew C Chu, Antoni S Gozdz, Michael C Hoffman	Andrew C Chu, Ricardo Fulop, Jonah S Myerberg, Michael C Hoffman, Greg Tremelling, Benjamin C Shaffer	Andrew C Chu, Ricardo Fulop, Jonah S Myerberg, Michael C Hoffman, Greg Tremelling, Benjamin C Shaffer	Andrew C Chu, Ricardo Fulop, Jonah S Myerberg, Michael C Hoffman, Greg Tremelling, Benjamin C Shaffer	Andrew C Chu, Ricardo Fulop, Jonah S Myerberg, Michael C Hoffman, Greg Tremelling, Benjamin C Shaffer	Andrew C Chu, Ricardo Fulop, Jonah S Myerberg, Michael C Hoffman, Greg Tremelling, Benjamin C Shaffer	Andrew C Chu, Ricardo Fulop, Jonah S Myerberg, Michael C Hoffman, Greg Tremelling, Benjamin C Shaffer	Antoni S Gozdz, Charles E Martin, Gilbert N Riley, Jr.	Antoni S Gozdz, Charles E Martin, Gilbert N Riley, Jr.	Antoni S Gozdz, Charles E Martin, Gilbert N Riley, Jr.	Antoni S Gozdz, Charles E Martin, Gilbert N Riley, Jr.	Antoni S Gozdz, Charles E Martin, Gilbert N Riley, Jr.	Antoni S Gozdz, Charles E Martin, Gilbert N Riley, Jr.	Antoni S Gozdz, Charles E Martin, Gilbert N Riley, Jr.	Inventor

1054	1054	1053	1053	1053	1053	1053	1053	1052	1052	1051	1051	1050	1050	1050	1050	1050	1050	1050	1049	1049	1049	1049	1049	1049	A123 Case Number
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Europe	China	United States	Korea	Japan	India	Germany	China	United States	United States	United States	Europe	United States	Korea	Japan	India	Europe	China	Canada	United States	Taiwan	Korea	Japan	Europe	China	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Pending	Granted	Pending	Pending	Pending	Granted	Pending	Granted	Granted	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Status
PCT	PCT	ORD	ORD	ORD	ORD	ORD	ORD	ORD	DIV	ORD	PCT	ORD	PCT	PCT	PCT	PCT	PCT	PCT	CIP	ORD	РСТ	PCT	PCT	PCT	CaseType
08770516.6	200880024680.3	11/954,955	10-2008-7031175	2009-514491	10772/DELNP/2008	112007001382.6	200780023714.2	11/757,658	972,781	12/131892	08756638.6	12/028772	10-2009-7018759	2009-549284	2830/KOLNP/2009	08729474.0	200880009239.8	2677847	11/672931	97103922	10-2009-7018664	2009-549177	08782740.8	200880009462.2	App. No.
6/9/2008	6/9/2008	12/12/2007	6/5/2007	6/5/2007	6/5/2007	6/5/2007	6/5/2007	6/4/2007	12/20/2010	6/2/2008	6/2/2008	2/8/2008	2/8/2008	2/8/2008	2/8/2008	2/8/2008	2/8/2008	2/8/2008	2/8/2007	2/1/2008	1/31/2008	1/31/2008	1/31/2008	1/31/2008	Filing Date
		8076030						7867651	7879493																Pat No.
		12/13/2011						1/11/2011	2/1/2011																Pat. Date
CAP ASSEMBLY FOR A HIGH CURRENT CAPACITY ENERGY DELIVERY DEVICE	CAP ASSEMBLY FOR A HIGH CURRENT CAPACITY ENERGY DELIVERY DEVICE	Alkali Metal Titanates, And Electrodes And Batteries Based On The Same	Alkalai Metal Titanates And Method For Their Synthesis	Alkali Metal Titanates And Methods For Their Synthesis	Alkali Metal Titanates And Methods For Their Synthesis	SEPARATOR INCLUDING ELECTROACTIVE MATERIAL FOR OVERCHARGE PROTECTION	SEPARATOR INCLUDING ELECTROACTIVE MATERIAL FOR OVERCHARGE PROTECTION	CONTROL SYSTEM FOR HYBRID VEHICLES WITH RECONFIGURABLE MULTI-FUNCTION POWER CONVERTER	CONTROL SYSTEM AND HYBRID VEHICLES WITH RECONFIGURABLE MULTI-FUNCTION POWER CONVERTER	CONTROL SYSTEM AND HYBRID VEHICLES WITH RECONFIGURABLE MULTI-FUNCTION POWER CONVERTER	CONTROL SYSTEM AND HYBRID VEHICLES WITH RECONFIGURABLE MULTI-FUNCTION POWER CONVERTER	CONTROL SYSTEM AND HYBRID VEHICLES WITH RECONFIGURABLE MULTI-FUNCTION POWER CONVERTER	CONTROL SYSTEM AND HYBRID VEHICLES WITH RECONFIGURABLE MULTI-FUNCTION POWER CONVERTER	CONTROL SYSTEM AND HYBRID VEHICLES WITH RECONFIGURABLE MULTI-FUNCTION POWER CONVERTER	NANOSCALE ION STORAGE MATERIALS	ΑφρΤίtie									
Donald G DaFoe, Lucien Fontaine, William H Gardner	Donald G DaFoe, Lucien Fontaine, William H Gardner	Pu Zhang, Suresh Mani, Yet-Ming Chiang, Shih- Chieh Yin, Brian Glomski, Young Jang II, Christopher Silkowski, Michael R. Wixom	Pu Zhang, Suresh Mani, Michael R. Wixom	Pu Zhang, Suresh Mani, Michael R. Wixom	Pu Zhang, Suresh Mani, Michael R. Wixom	Pu Zhang, Suresh Mani, Michael R. Wixom	Pu Zhang, Suresh Mani, Michael R. Wixom	Pu Zhang, Suresh Mani, Michael R. Wixom	Pu Zhang, Suresh Mani, Michael R. Wixom	Susan J Babinec, Karen E Thomas-Alyea, Richard K Holman	Susan J Babinec, Karen E Thomas-Alyea, Richard K Holman	Akos Toth	Yet-Ming Chiang, Martin W. Payne, Antoni S Gozdz	Inventor											

1058	1058	1058	1056	1056	1056	1056	1056	1056	1055	1055	1055	1055	1055	1055	1055	1055	1054	1054	1054	1054	Number
									4	ప							22				SubCase
Japan	Europe	China	United States	Korea	Japan	India	Europe	China	United States	United States	Taiwan	Korea	Japan	India	Europe	China	United States	Korea	Japan	India	
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	
Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Granted	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	
PCT	PCT	PCT	ORD	PCT	PCT	PCT	PCT	PCT	ORD	ORD	ORD	PCT	PCT	PCT	PCT	PCT	ORD	PCT	PCT	PCT	
2010-522046	08827786.8	200880112058.8	12/178538	10-2010-7003935	2010-518388	177/KOLNP/2010	08796559.6	200880105517.X	13/482649	12/172050	97126662	10-2010-7003179	2010-516283	179/KOLNP/2010	08796171.0	200880105630.8	12/135708	10-2010-7000354	2010-511425	4289/KOLNP/2009	
8/21/2008	8/21/2008	8/21/2008	7/23/2008	7/24/2008	7/24/2008	7/24/2008	7/24/2008	7/24/2008	5/29/2012	7/11/2008	7/14/2008	7/11/2008	7/11/2008	7/11/2008	7/11/2008	7/11/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008	
										8187735							8119280				
										5/29/2012							2/21/2012				
SEPARATOR FOR ELECTROCHEMICAL CELL AND Susan J Babinec, Angela Knapp, Gregory B Less METHOD FOR ITS MANUFACTURE	SEPARATOR FOR ELECTROCHEMICAL CELL AND Susan J Babinec, Angela Knapp, Gregory B Less METHOD FOR ITS MANUFACTURE	SEPARATOR FOR ELECTROCHEMICAL CELL AND METHOD FOR ITS MANUFACTURE	BATTERY CELL DESIGN AND METHODS OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHODS OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHODS OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHODS OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHODS OF ITS CONSTRUCTION	BATTERY CELL DESIGN AND METHODS OF ITS CONSTRUCTION	MULTIFUNCTIONAL MIXED METAL OLIVINES FOR LITHIUM BATTERIES	MULTIFUNCTIONAL MIXED METAL OLIVINES FOR LITHIUM BATTERIES	MULTIFUNCTIONAL MIXED METAL OLIVINES FOR LITHIUM BATTERIES	MULTIFUNCTIONAL MIXED METAL OLIVINES FOR LITHIUM BATTERIES	MULTIFUNCTIONAL MIXED METAL OLIVINES FOR LITHIUM BATTERIES	MULTIFUNCTIONAL MIXED METAL OLIVINES FOR LITHIUM BATTERIES	MULTIFUNCTIONAL MIXED METAL OLIVINES FOR LITHIUM BATTERIES	MULTIFUNCTIONAL MIXED METAL OLIVINES FOR LITHIUM BATTERIES	CAP ASSEMBLY FOR A HIGH CURRENT CAPACITY ENERGY DELIVERY DEVICE	CAP ASSEMBLY FOR A HIGH CURRENT CAPACITY ENERGY DELIVERY DEVICE	CAP ASSEMBLY FOR A HIGH CURRENT CAPACITY ENERGY DELIVERY DEVICE	CAP ASSEMBLY FOR A HIGH CURRENT CAPACITY ENERGY DELIVERY DEVICE	
Susan J Babinec, Angela Knapp, Gregory B Less	Susan J Babinec, Angela Knapp, Gregory B Less	Susan J Babinec, Angela Knapp, Gregory B Less	William H Gardner, Grace S Chang	Young-Il Jang Yu-Hua Kao, Yet-Ming Chiang, Nonglak Meethong, Karen E Thomas Alyea, Andrew C Chu, Anthony E Pullen, Gilbert N Riley, Jr.	Young-II Jang, Yu-Hua Kao, Yet-Ming Chiang, Nonglak Meelthong, Karen E Thomas Alyea, Andrew C Chu, Anthony E Pullen, Gilbert N Riley, Jr.	Andrew C Chu, Anthony E Puller, Gilbert N Riley, Jr., Karen E Thomas Alyea, Nonglak Meethong, Yet-Ming Chiang, Yu-Hua Kao, Young II Jang	Andrew C Chu, Anthony E Pullen, Gilbert N Riley, Jr., Karen E Thomas-Alyea, Nonglak Meethong, Yet-Ming Chiang, Yu-Hua Kao, Young II Jang	Andrew C Chu, Anthony E Pullen, Gilbert N Riley, Jr., Karen E Thomas Abyea, Nonglak Meethong, Yet-Ming Chiang, Yu-Hua Kao, Young II Jang	Andrew C Chu, Anthony E Pullen, Gilbert N Riley, Jr., Karen E Thomas-Alyea, Nonglak Meethong, Yet-Ming Chiang, Yu-Hua Kao, Young II Jang	Andrew C Chu, Anthony E Puller, Gilbert N Riley, Jr., Karen E Thomas Alyea, Nonglak Meethong, Yet-Ming Chiang, Yu-Hua Kao, Young II Jang	Andrew C Chu, Anthony E Pullen, Gilbert N Riley, Jr., Karen E Thomas-Alyea, Nonglak Meethong, Yet-Ming Chiang, Yu-Hua Kao, Young II Jang	Donald G DaFoe, Lucien Fontaine, William H Gardner	Donald G DaFoe, Lucien Fontaine, William H Gardner		Donald G DaFoe, Lucien Fontaine, William H Gardner						

1062	1062	1062	1062	1062	1061	1061	1061	1061	1061	1061	1061	1060	1060	1060	1060	1060	1060	1059	1059	1059	1059	1059	1059	1058	1058	A123 Case Number
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Korea	Japan	India	Europe	China	United States	Taiwan	Korea	Japan	India	Europe	China	United States	Taiwan	Korea	Japan	Europe	China	United States	United States	Korea	Japan	Europe	China	United States	Korea	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Granted	Pending	Pending	Pending	Pending	Pending	Pending	Status
PCT	РСТ	PCT	PCT	PCT	ORD	ORD	PCT	PCT	PCT	PCT	PCT	ORD	ORD	PCT	PCT	PCT	PCT	ORD	ORD	PCT	PCT	РСТ	PCT	ORD	PCT	CaseType
10-2010-2018198	2010-543309	4912/CHENP/2010	9701906.1	200980105552.6	12/323197	97146044	10-2010-7014251	2010-536145	3203/CHENP/2010	8856364.8	20880123705.5	12/240855	97137609	10-2010-7009415	2010-527240	08833067.5	200880109165.5	13/448999	12/210812	10-2010-7008020	2010-525072	08830896.0	200880115322.3	12/196203	2010-7006170	App. No.
1/21/2009	1/21/2009	1/21/2009	1/21/2009	1/21/2009	11/25/2008	11/27/2008	11/25/2008	11/25/2008	11/25/2008	11/25/2008	11/25/2008	9/29/2008	9/30/2008	9/29/2008	9/29/2008	9/29/2008	9/29/2008	4/17/2012	9/15/2008	9/15/2008	9/15/2008	9/15/2008	9/15/2008	8/21/2008	8/21/2008	Filing Date
																			8163410							Pat. No.
																			4/24/2012							Pat. Date
MIXED METAL OLIVINE ELECTRODE MATERIALS FOR LITHIUM ION BATTERIES	MIXED METAL OLIVINE ELECTRODE MATERIALS FOR LITHIUM ION BATTERIES		MIXED METAL OLIVINE ELECTRODE MATERIALS FOR LITHIUM ION BATTERIES	MIXED METAL OLIVINE ELECTRODE MATERIALS FOR LITHIUM ION BATTERIES	BATTERY CELL DESIGN WITH ASYMMETRICAL TERMINALS	BATTERIES HAVING INORGANIC/ORGANIC POROUS FILMS	LITHIUM RECHARGABLE CELL WITH REFERENCE ELECTRODE FOR STATE OF HEALTH MONITORING	LITHIUM RECHARGABLE CELL WITH REFERENCE ELECTRODE FOR STATE OF HEALTH MONITORING	LITHIUM RECHARGABLE CELL WITH REFERENCE ELECTRODE FOR STATE OF HEALTH MONITORING	LITHIUM RECHARGABLE CELL WITH REFERENCE ELECTRODE FOR STATE OF HEALTH MONITORING	LITHIUM RECHARGABLE CELL WITH REFERENCE ELECTRODE FOR STATE OF HEALTH MONITORING	LITHIUM RECHARGABLE CELL WITH REFERENCE ELECTRODE FOR STATE OF HEALTH MONITORING	SEPARATOR FOR ELECTROCHEMICAL CELL AND Susan J Babinec, Angela Knapp, Gregory B Less METHOD FOR ITS MANUFACTURE	SEPARATOR FOR ELECTROCHEMICAL CELL AND METHOD FOR ITS MANUFACTURE	AppTitle:											
Larry W Beck, Chuanjing Xu, Liya Wang, Phillip Shotles, Anthony E Pullen	Larry W Beck, Chuanjing Xu, Liya Wang, Phillip Shottes, Anthony E Pullen	Larry W Beck, Chuanjing Xu, Liya Wang, Phillip Shottes, Anthony E Pullen	Larry W Beck, Chuanjing Xu, Liya Wang, Phillip Shotles, Anthony E Pullen	Larry W Beck, Chuanjing Xu, Liya Wang, Phillip Shotles, Anthony E Pullen	William H Gardner, Stephen Tillmann	Gregory B Less, Susan J Babinec, Gilbert N Riley, Jr.	Gregory B Less, Susan J Babinec, Gilbert N Riley, Jr.	Gregory B Less, Susan J Babinec, Gilbert N Riley, Jr.	Gregory B Less, Susan J Babinec, Gilbert N Riley, Jr.	Gregory B Less, Susan J Babinec, Gilbert N Riley, Jr.	Gregory B Less, Susan J Babinec, Gilbert N Riley, Jr.	Yet-Ming Chiang, William E Gardner, Karen E Thomas-Alyea, Ricardo Fulop	Yet-Ming Chiang, William E Gardner, Karen E Thomas-Alyea, Ricardo Fulop	Yet-Ming Chiang, William E Gardner, Karen E Thomas-Alyea, Ricardo Fulop	Yet-Ming Chiang, William E Gardner, Karen E Thomas-Alyea, Ricardo Fulop	Yet-Ming Chiang, William E Gardner, Karen E Thomas-Alyea, Ricardo Fulop	Yet-Ming Chiang, William E Gardner, Karen E Thomas-Alyea, Ricardo Fulop	Susan J Babinec, Angela Knapp, Gregory B Less	Susan J Babinec, Angela Knapp, Gregory B Less	Ιονεστέρι						

1065	1064	1064	1064	1064	1064	1064	1064	1064	1064	1063	1063	1063	1063	1063	1063	1063	1063	1062	1062	A123 Case Number
	1									1								1		A123 SubCase
Brazil	United States	PCT	Korea	Japan	India	Europe	China	Canada	Brazil	United States	PCT	Korea	Japan	India	Europe	China	Canada	United States	Taiwan	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Status
ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	CaseType
Pl0911250-2	12/416072	US09/39040	10-2010-7024200	2011-503118	3632/KOLNP/2010	2272148	200980116991.7	2720231	Pl0910105-5	12/411380	US09/38308	10-2010-7023387	2011-502033	3978/KOLNP/2010	09724612.8	200980117447.4	2719764	12/357008	98101842	App. No.
	3/31/2009	3/31/2009								3/25/2009	3/25/2009							1/21/2009	1/17/2009	Filing Date
																				Pat. No.
																				Pat. Date
FLEXIBLE VOLTAGE NESTED BATTERY MODULE DESIGN	METHOD FOR DETECTING CELL STATE-OF- CHARGE AND STATE-OF-DISCHARGE DIVERGENCE OF A SERBIES STRING OF BATTERIES OR CAPACITORS	METHOD FOR DETECTING CELL STATE-OF- CHARGE AND STATE-OF-DISCHARGE DIVERGENCE OF A SERIES STRING OF BATTERIES OR CAPACITORS	METHOD FOR DETECTING CELL STATE-OF- CHARGE AND STATE-OF-DISCHARGE DIVERGENCE OF A SERIES STRING OF BATTERIES OR CAPACITORS	METHOD FOR DETECTING CELL STATE-OF- CHARGE AND STATE-OF-DISCHARGE DIVERGENCE OF A SERIES STRING OF BATTERIES OR CAPACITORS	METHOD FOR DETECTING CELL STATE-OF- CHARGE AND STATE-OF-DISCHARGE DIVERGENCE OF A SERIES STRING OF BATTERIES OR CAPACITORS	METHOD FOR DETECTING CELL STATE-OF- CHARGE AND STATE-OF-DISCHARGE DIVERGENCE OF A SERIES STRING OF BATTERIES OR CAPACITORS	METHOD FOR DETECTING CELL STATE-OF- CHARGE AND STATE-OF-DISCHARGE DIVERGENCE OF A SERBIES STRING OF BATTERIES OR CAPACITORS	METHOD FOR DETECTING CELL STATE-OF- CHARGE AND STATE-OF-DISCHARGE DIVERGENCE OF A SERIES STRING OF BATTERIES OR CAPACITORS	METHOD FOR DETECTING CELL STATE-OF- CHARGE AND STATE-OF-DISCHARGE DIVERGENCE OF A SERIES STRING OF BATTERIES OR CAPACITORS	HIGH ENERGY HIGH POWER ELECTRODES AND BATTERIES	HIGH ENERGY HIGH POWER ELECTRODES AND  BATTERIES	HIGH ENERGY HIGH POWER ELECTRODES AND BATTERIES	HIGH ENERGY HIGH POWER ELECTRODES AND BATTERIES	HIGH ENERGY HIGH POWER ELECTRODES AND BATTERIES	HIGH ENERGY HIGH POWER ELECTRODES AND BATTERIES	HIGH ENERGY HIGH POWER ELECTRODES AND BATTERIES	HIGH ENERGY HIGH POWER ELECTRODES AND BATTERIES	MIXED METAL OLIVINE ELECTRODE MATERIALS FOR LITHIUM ION BATTERIES	MIXED METAL OLIVINE ELECTRODE MATERIALS FOR LITHIUM ION BATTERIES	AppTitle
Mujeeb Ijaz, Brian Moorhead, Jonathan Jostler, Brian Rutkowski, Shazad Butt	Michael C Hoff	Michael C Hoff	Michael C Hoff	Michael C Hoff	Michael C Hoff	Michael C Hoff	Michael C Hoff	Michael C Hoff	Michael C Hoff	Yet-Ming Chiang, Michael Wixom, Andrew C Chu, Young-II Jang	Yet-Ming Chiang, Michael Wixom, Andrew C	Yet-Ming Chiang, Michael Wixom, Andrew C Chu, Young-II Jang	Yet-Ming Chiang, Michael Wixom, Andrew C Chu, Young-II Jang	Yet-Ming Chiang, Michael Wixom, Andrew C Chu, Young-II Jang	Yet-Ming Chiang, Michael Wixom, Andrew C Chu, Young-II Jang	Yet-Ming Chiang, Michael Wixom, Andrew C Chu, Young-II Jang	Yet-Ming Chiang, Michael Wixom, Andrew C Chu, Young-II Jang	Larry W Beck, Chuanjing Xu, Liya Wang, Phillip Shottes, Anthony E Pullen	Larry W Beck, Chuanjing Xu, Liya Wang, Phillip Sholles, Anthony E Pullen	Inventor

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1071	1071	1071	1071	1071	1070	1070	1070	1070	1070	1070	1070	1069	1069	1068	1068	1066	1066	1065	1065	1065	1065	A123 Case Number
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United States	PCT	Korea	Japan	China	United States	Taiwan	Korea	Japan	Germany	China	China	United States	PCT	United States	PCT	United States	PCT	United States	PCT	Japan	Europe	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Status
ORD	ORD	ORD	ORD	ORD	ORD	ORD	PCT	PCT	PCT	UTM	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	CaseType
12/350,631	US10/20769	10-2010-7017817	2010-542364	200980103123.5	12/623967	98144298	10-2011-7014265	2011-538644	112009003624.4	200920178049.0	200910258463.7	12/558091	US09/56678	12/502855	US09/50580	12/477382	US09/46281	12/423799	US09/40583	2011-505152	09767167.1	App. No
1/8/2009	1/12/2010	1/9/2009	1/9/2009	1/9/2009	11/23/2009	12/22/2009	5/25/2011	5/24/2011	5/23/2011	11/25/2009	11/25/2009	9/11/2009	9/11/2009	7/14/2009	7/14/2009	6/3/2009	6/4/2009	4/14/2009	4/14/2009			Filing Date
										ZL200920178049.0												Pat No.
										3/23/2011												Pat. Date
Silicon Based Composite Material	LAMINATED BATTERY CELL AND METHODS FOR CREATING THE SAME	Silicon Based Composite Material	Silicon Based Composite Material	Silicon Based Composite Material	METHOD AND DESIGN FOR EXTERNALLY APPLIED LASER WELDING OF INTERNAL CONNECTIONS IN A HIGH POWER ELECTROCHEMICAL CELL	METHOD AND DESIGN FOR EXTERNALLY APPLIED LASER WELDING OF INTERNAL CONNECTIONS IN A HIGH POWER ELECTROCHEMICAL CELL	METHOD AND DESIGN FOR EXTERNALLY APPLIED LASER WELDING OF INTERNAL CONNECTIONS IN A HIGH POWER ELECTROCHEMICAL CELL	METHOD AND DESIGN FOR EXTERNALLY APPLIED LASER WELDING OF INTERNAL CONNECTIONS IN A HIGH POWER ELECTROCHEMICAL CELL	METHOD AND DESIGN FOR EXTERNALLY APPLIED LASER WELDING OF INTERNAL CONNECTIONS IN A HIGH POWER ELECTROCHEMICAL CELL	METHOD AND DESIGN FOR EXTERNALLY APPLIED LASER WELDING OF INTERNAL CONNECTIONS IN A HIGH POWER ELECTROCHEMICAL CELL	METHOD AND DESIGN FOR EXTERNALLY APPLIED LASER WELDING OF INTERNAL CONNECTIONS IN A HIGH POWER ELECTROCHEMICAL CELL	SPLIT CHARGE FORMING PROCESS FOR BATTERY	SPLIT CHARGE FORMING PROCESS FOR BATTERY	PRISMATIC CELL WITH OUTER ELECTRODE LAYERS COATED ON A SINGLE SIDE	PRISMATIC CELL WITH OUTER ELECTRODE LAYERS COATED ON A SINGLE SIDE	METHOD AND SYSTEM FOR DETERMINING STATE OF CHARGE OF AN ENERGY DELIVERY DEVICE	METHOD AND SYSTEM FOR DETERMINING STATE OF CHARGE OF AN ENERGY DELIVERY DEVICE	FLEXIBLE VOLTAGE NESTED BATTERY MODULE DESIGN	ΑρρΤίθε			
Pu Zhang, Suresh Mani, Junquing Ma, Liya Wang	Pu Zhang, Suresh Mani, Junquing Ma, Liya Wang	Pu Zhang, Suresh Mani, Junquing Ma, Liya Wang	Pu Zhang, Suresh Mani, Junquing Ma, Liya Wang	Pu Zhang, Suresh Mani, Junquing Ma, Liya Wang	William H Gardner, Lucien Fontaine, Charles E Martin	San-Young Yoon, Rocco locco		Seong-Woo Park, Myoung-Shin Hong, Whan Jin Roh, Sang-Young Yoon	Seong-Woo Park, Myoung-Shin Hong, Whan Jin Roh, Sang-Young Yoon	Karen E Thomas-Alyea	Karen E Thomas-Alyea	Mujeeb Ijaz, Brian Moorhead, Jonathan Jostler, Brian Rutkowski, Shazad Butt	Mujeeb Ijaz, Brian Moorhead, Jonathan Jostler, Brian Rutkowski, Shazad Butt	Mujeeb Ijaz, Brian Moorhead, Jonathan Jostler, Brian Rutkowski, Shazad Butt	Mujeeb Ijaz, Brian Moorhead, Jonathan Jostler, Brian Rulkowski, Shazad Butt	Inventor						

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PATENT REEL: 050481 FRAME: 0183

A123 Case Number 1085

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PATENT REEL: 050481 FRAME: 0184

A123 Case Number

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1100	1099	1099	1098	1097	1096	1095	1095	1094	1093	1093	1093	1092	1091	1090	1089	1087	1087	1086	1086	1085	A123 Case Number
	_								1			1						_			A123 SubCase
PCT	United States	PCT	PCT	PCT	United States	United States	PCT	PCT	United States	Europe	China	United States	United States	United States	United States	United States	PCT	United States	PCT	United States	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Status
ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	PRO	PRO	ORD	ORD	ORD	ORD	PRO	CaseType
PCT/US2011	12/796,810	PCT/US11/20692	PCT/US11/20078	PCT/US10/62351	13/517903	13/514711	PCT/US10/60112	PCT/US2010/060332	13/513,665			13/513,024	13/513,542	61/264951	61/264046	13/509,899	2011/063132	12/891,945	US10/50527	61/243846	App. No.
1/26/2011	6/9/2010	1/10/2011	1/4/2011	12/29/2010	6/20/2012	6/8/2012	12/13/2010	12/14/2010	6/4/2012			5/31/2012	6/1/2012	11/30/2009	11/24/2009	5/15/2012	5/26/2011	9/28/2010		9/18/2009	Filing Date
																					Pat No.
																					Pat. Date
System and Method Providing Power Within a Battery Pack	System and Method for Monitoring and Balancing Voltage of Individual Battery Cells Within a Battery Pack	System and Method Providing Power Within a Battery Pack	System and Method for Monitoring and Balancing Voltage of Individual Battery Cells Within a Battery Pack	System and Method for Controlling Voltage of Individual Battery Cells Within a Battery Pack	METAL OXIDE ANODE MATERIAL	System and Method for Estimating a State of a Battery Pack	System and Method for Estimating a State of a Battery Pack	System and Method for Controlling Humidity in a Battery Module	AUTOMOTIVE BATTERY WITH INTEGRATED POWER MANAGEMENT SYSTEM AND SCALABLE	AUTOMOTIVE BATTERY WITH INTEGRATED POWER MANAGEMENT SYSTEM AND SCALABLE BATTERY CUTOFF COMPONENT	AUTOMOTIVE BATTERY WITH INTEGRATED POWER MANAGEMENT SYSTEM AND SCALABLE BATTERY CUTOFF COMPONENT	GRID LOAD SYNCHRONIZATION DEVICE AND METHOD	ELECTRICAL INSULATOR FOR ELECTROCHEMICAL CELL	FERRIC PHOSPHATE AND METHODS OF PREPARATION THEREOF	ELECTROLYTE WITH IMPROVED WETTING PROPERTIES	COMPOSITE SEPARATOR FOR ELECTROCHEMICAL CELL AND METHOD FOR ITS MANUFACTURE	COMPOSITE SEPARATOR FOR ELECTROCHEMICAL CELL AND METHOD FOR ITS MANUFACTURE	BATTERY-BASED COUNTERMEASURE FOR BULK   Charles Varianian, David Colucci, Peter Gottlieb, ELECTRIC SYSTEM DELAYED VOLTAGE RECOVERY	BATTERY-BASED COUNTERMEASURE FOR BULK ELECTRIC SYSTEM DELAYED VOLTAGE RECOVERY	FERRIC PHOSPHATE DIHYDRATE AS LITHIUM IRON PHOSPHATE SYNTHETIC PRECURSOR AND METHOD OF PREPARATION THEREOF	AppTitle
Brian D. Rutkowski Brian C. Moorihead Paul W. Firehammer Jack W. Wagner	Paul W. Firehammer Brian C. Moorhead	Brian D. Rutkowski Brian C. Moorhead Paul W. Friehammer Jack W. Wagner	Paul W. Firehammer Brian C. Moorhead	Paul W. Firehammer John H. Floros	Rocco locco, Sang-Young Park	Gary R. O'Brien Brian D. Rutkowski Shazad Mahmood Butt	Gary R. O'Brien Brian D. Rulkowski Shazad Mahmood Butt	Chad Jeromy Allison	Brian J Pevear	Brian J Pevear	Brian J Pevear	Peter Gottlieb, John M McNally	William H Gardner, Lucine Fontaine, Charles E Martin, Keith M Bibby, Dale Beaver	Larry W Beck, Chuanjing Xu, Liya Wang, Phillip Sholtes, Anthony E Pullen	Jeong Ju Cho, Antoni S Gozdz	Patrick Hagans, William Hicks, Yet-Ming Chiang, Susan J Babinec	Patrick Hagans, William Hicks, Yet-Ming Chiang, Susan J Babinec	Charles Varianian, David Colucci, Peter Gottlieb, Michael C Hoffman	Charles Vartanian, David Colucci, Peter Gottlieb, Michael C Hoffman	Mahrokh Soltani, Larry W Beck, Liya Wang	Inventor

1151	1151	1151	1151	1145	1141	1141	1140	1140	1138	1136	1136	1135	1135	1134	1133	1128	1128	1110	1108	1107	1106	1104	1104	1104	1103	1102	1101	A123 Case Number
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Korea	Japan	Germany	China	PCT	United States	PCT	United States	PCT	United States	United States	PCT	United States	PCT	PCT	PCT	United States	PCT	PCT	United States	PCT	PCT	United States	United States	PCT	United States	PCT	PCT	Country
A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Status
ORD	PCT	PCT	PCT						ORD		ORD	ORD	ORD	ORD	ORD			ORD	ORD	ORD	ORD	PRO	PRO	ORD	ORD	PRO	ORD	CaseType
10-2011-7018695	10-2011-7018695	112010000785.3	201080000569.80	PCT/US11/56118	61/449,804	PCT/US2012/028039	12/820,411	US2011/041365	12/854,274	12/820,421	US2011/041362	12/820,433	US2011/041361	US2011/041949	PCT/US2011/038073	12/914,006	PCT/US11/57852	US2011/038873	13/079683	PCT/US2011/029523	PCT/US2011/029525	61/310887	61/393,969	PCT/US11/27416	12/704,591	PCT/US11/24758	PCT/US2011/023680	App. No
10/20/2011	7/11/2011	7/11/2011	1/11/2010	10/13/2011	3/7/2011	3/7/2011	6/22/2010	6/22/2011	8/11/2010	6/22/2010	6/22/2011	6/22/2010	6/22/2011	6/27/2011	5/26/2011	10/28/2010	10/26/2011	6/2/2011	4/4/2011	3/23/2011	3/23/2011	3/5/2010	10/18/2010	3/7/2011	2/12/2010	2/11/2011	2/4/2011	Filing Date
																												Pat No.
																												Pat. Date
BI-METALLIC BUSBAR JUMPERS AND ASSOCIATED WELDING METHODS FOR BATTERY SYSTEMS	BI-METALLIC BUSBAR JUMPERS AND ASSOCIATED WELDING METHODS FOR BATTERY SYSTEMS	BI-METALLIC BUSBAR JUMPERS AND ASSOCIATED WELDING METHODS FOR BATTERY SYSTEMS	BI-METALLIC BUSBAR JUMPERS AND ASSOCIATED WELDING METHODS FOR BATTERY SYSTEMS	INTEGRAL BATTERY TAB	method for opportunistically balancing charge between battery cells	method for opportunistically balancing charge between battery cells	System and Method for Balancing Voltage of Individual	System and Method for Balancing Voltage of Individual Battery Cells Within a Battery Pack	Battery Management System Parasitic Power Reduction via Selective Sample Rate	System and method for managing change within a battery pack	System and method for managing change within a battery pack	Battery Useable Capacity Extension	Battery Useable Capacity Extension	Banding of Battery Modules	System and Method for Monitoring Battery Bus Bars Within a Battery Pack	BATTERY BALANCING SYSTEM (a/k/a Rack- Balancer - Part of SSGS redesign)	BATTERY BALANCING SYSTEM (a/k/a Rack- Balancer - Part of SSGS redesign)	CRIMPED, PRISMATIC BATTERY STRUCTURE	LI-ION BATTERY CATHODE MATERIALS WITH INTRINSIC OVER-DISCHARGE PROTECTION	System and Method for Controlling a Battery Pack Output Contactor	System and Method for Assessing ADC Operation and Voltage of a Battery Pack	DESIGN AND FABRICATION OF ELECTRODES WITH GRADIENTS	DESIGN AND FABRICATION OF ELECTRODES WITH GRADIENTS	DESIGN AND FABRICATION OF ELECTRODES WITH GRADIENTS	Materials And Methods For The Removal Of Sulfur Compounds From Feedstock	TEMPERATURE CONTROLLED PARALLEL BALANCING	System and Method for Assessing Voltage Threshold Detecting Circuitry Within a Battery Pack	AppTitle
Butt, Shazad M.; Hostler, Jonathan E.; Ijaz, Mujeeb	Butt, Shazad M.; Hostler, Jonathan E.; Ijaz, Mujeeb	Butt, Shazad M.; Hostler, Jonathan E.; Ijaz, Mujeeb	ljaz, Mujeeb; Butt, Shazad M.; Hostler, Jonathan E.	Nicholas Varamo, Michael Barone	Moorhead	Moorhead	Benjamin Sinsheimer	Benjamin Sinsheimer Paul W. Firehammer	Brian Moorhead Brian Rutkowski	Paul Firehammer Brian Moorhead	Paul Firehammer Brian Moorhead	Paul Firehammer Brian Moorhead	Paul Firehammer Brian Moorhead	Arfan Ahmad	Kirk Englert Brian Rutkowski	Peter Gottlieb	Peter Gottlieb	Viet Vu et al.	Young-II Jang	Paul W. Firehammer Brian C. Moorhead Brian D. Rutkowski	Brian C. Moorhead Paul W. Firehammer	Richard K Holman, Susan J Babinec, Karen E Thomas-Alyea, Gilbert N Riley, Jr.	Richard K Holman, Susan J Babinec, Karen E Thomas-Alyea, Gilbert N Riley, Jr.	Richard K Holman, Susan J Babinec, Karen E Thomas-Alyea, Gilbert N Riley, Jr.	Hanwei Lei, Maha Hammoud, Adam Rand, Liya Wang	David Colucci, Tom De Lucia, Bud Collins, Michael C Hoff	Paul W. Firehammer John H. Floros	Inventor

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1220	1220	1219	1218	1217	1207	1205	1202	1201	1199	1199	1199	1198	1189	1188	1183	1183	1170	1170	1164	1163	1163	1161	1160	1158	1157	1155	1152	1151	1151	1151	A123 Case Number
										2	_					1					1										A123 SubCase
Japan	China	China	China	China	United States	United States	United States	United States	United States	United States	United States	United States	United States	United States	United States	United States	PCT	Korea	United States	United States	United States	United States	United States	United States	PCT	United States	PCT	United States	Taiwan	PCT	Country
Jointly-owned (Toyota + T/J Tech)	Jointly-owned (Toyota + T/J Tech)	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Jointly-owned (Lotte)	Jointly-owned (Lotte)	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	A123-owned	Owner
Pending	Granted	Granted	Granted	Granted	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Status
ORD	ORD	ORD	ORD	ORD	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PCT	PCT	PRO	PRO	ORD	PRO	PRO	PRO	PRO	PRO	ORD	ORD	ORD	용	CaseType
JP2010500723T2	CN101601162A	200620002613.X		sn 200510021136.1	61/596624	61/616668	61/649562	61/620736	61/594058	61658712	61658704	61/593,960	61/542,341	61616668	61/511,280	61/524532	WO2010KR0009441	KR2009000132131	61/570,920	61/429,942	13/344528	61/420,476	61/503,829	61/477,295	PCT/US2011/055029	61/476,939	PCT/US2012/032276	12/628780	99100675.00	US10/20636	App. No.
		3/1/2006		6/17/2005	2/8/2012	3/28/2012	5/21/2012	4/5/2012	2/2/2012	6/12/2012	6/12/2012	2/2/2012	10/3/2011	1/30/2012	7/25/2011	8/17/2011	12/28/2010	12/28/2009	12/15/2011	1/5/2011	1/5/2012	12/7/2010	7/1/2011	4/20/2011	10/6/2011	4/19/2011	4/5/2011	12/1/2009	1/12/2010	1/11/2010	Filing Date
	CN101601162B	CN20060002613	CN20060002612	CN20050021136																											Pat No.
	12/9/2009																														Pat. Date
High Performance Anode Material For Lithium-Ion Battery	High Performance Anode Material For Lithium-Ion Battery	Lithium Ion Battery Pole Piece Protector	Jig for Cylindrical Lithium Ion Battery	Cover Plate Assembly for Lithium Ion Battery	Battery Pack Including Fluid Resistant Over-Mold	ELECTROLYTE ADDITIVE WITH IMPROVED CYCLE LIFE (e.g. Sulfurtrioxide pyridine complex)		Prismatic cell comprising multi jelly rolls with the cathode sheet between the jelly rolls	Ethylene Sulfonate electrolyte additive	Microhybrid Battery	Lithium Ion Cell with Non-Aqueous Electrolyte with a Solvent Including an S—O Bond	FAST-CHARGE BATTERY WITH REDUCED RATE OF CAPACITY FADE	CATHODE MATERIALS INCLUDING AN OXYGEN- GETTERING COMPOUND AND AN ION-STORAGE COMPOUND	Method to connect a Printed Circuit Board Assembly to a battery pack to control voltage power up	Blended Cathode Materials	Blended Cathode Materials	SEPARATOR WITH NANO-SCALED PORES AND ENERGY STORAGE DEVICE INCLUDING THE SAME	SEPARATOR WITH NANO-SCALED PORES AND ENERGY STORAGE DEVICE INCLUDING THE SAME	Hybrid Battery with Boost Energy Transfer Circuit	Energy distribution for welding ultrathin electrodes using sacrificial buffer material.	Energy distribution for welding ultrathin electrodes using sacrificial buffer material.	Fast-Charge Battery with Reduced Lithium Plating	Heterogeneous ohmic contact for a voltaic cell	System and method for balancing charge between battery cells	Method for verify Vollage Reference for battery cell monitoring	Thermal gap pad for a prismatic battery pack	Extruded cold plate with integrated fluid routing	BI-METALLIC BUSBAR JUMPERS FOR BATTERY SYSTEMS	BI-METALLIC BUSBAR JUMPERS AND	BI-METALLIC BUSBAR JUMPERS AND	AppTitle
Pu Zhang et al.	Pu Zhang et al.	Wang Chunguang	Wu Feichao	Zhao Junfeng	Michael Ciaccio	Jeong-Ju Cho	William Gardner	Sang-Young Yoon	Jeong-Ju Cho	Jeong-Ju Cho	Jeong-Ju Cho	Karen Thomas-Alyea	Karen Thomas-Alyea		Sang-Young Yoon, Rocco locco	Sang-Young Yoon, Rocco locco, Jeong Ju Cho	Chee⋅Hyun Kim et al	Chee-Hyun Kim et al	Michael Wixom, Viet Vu	Shazad Butt, John Kim	Shazad Butt, John Kim	Karen E. Thomas-Alyea	Chad Allison	John Floros and Paul Firehammer	John Floros and Paul Firehammer	Allan Alimario, Jason Davis, Chad Allison, Jonathan Hostler, David Allen	Jay Murdock; Marius Enache	Butt, Shazad M.; Hostler, Jonathan E.; Ijaz, Mujeeb	Butt, Shazad M.; Hostler, Jonathan E.; Ijaz,	Butt, Shazad M.; Hostler, Jonathan E.; Ijaz,	Inventor

1224	1224	1223	1223	1223	1223	1223	1223	1223	1223	1223	1223	1223	1223	1223	1223	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222	1000	1221	1221	1220	1220	1220	A123 Case Number
			2	1				ω	N	1	2	_				4	ω	2	1			6	5	4	2	1		_					2	_							A123 SubCase
Canada	Canada	United States	United States	United States	Korea	Korea	Japan	India	India	India	Europe	Europe	China	Canada	Australia	United States	United States	United States	United States	United Kingdom	Spain	Korea	Korea	Korea	Korea	Korea	Japan	Japan	Italy	Germany	France	Europe	China	China		United States	Japan	United States	Korea	Korea	Country
Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Licensed (MIT)	Tech)	Jointly-owned	Jointly-owned (Toyota + T/J Tech)	Jointly-owned (Toyota + T/J Tech)	Jointly-owned (Toyota + T/J Tech)	Jointly-owned (Toyota + T/J Tech)	Owner														
4 Granted	4 Granted	Granted	Granted	Granted	Pending	Pending	Granted	Pending	Pending	Granted	Pending	Pending	Granted	Pending	Granted	Pending	Pending	Granted	Granted	Granted	Granted	Pending	Pending	Pending	Granted	Granted	Pending	Pending	Granted	Granted	Granted	Granted	Pending	Granted	Sab	Granted	Pending	Granted	Pending	Pending	Status
ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	용	ORD	윰		ORD	ORD	ORD	ORD	ORD	CaseType									
			13/404735	11/091463	2004-7009809	10-2010-7004725	2003-557056	4486/KOLNP/2008	4155/KOLNP/2008		SN 10185031.1	SN 02798597.7		2471455	SN 2007202605	12/957000	12/839155			12/839155	12/839155	10-2010-7020519	10-2010-7018116	10-2010-7024736			2011-173173	2011-156139	12/839155	12/839155	12/839155	1352436	10115050.X	CN 01817679.8	242456	695975	2008258143A2	463394	2011-112358A	2009058517A	App. No.
23.04.1997	23.04.1997		2/24/2012	9/17/2007	12/23/2002	3/2/2010	12/23/2002	12/23/2002	12/23/2002		12/23/2002	12/23/2002		12/23/2002	12/23/2002	11/30/2010	7/19/2010			7/19/2010	7/19/2010	10/22/2001	10/22/2001	10/22/2001			10/22/2001	11/22/2001	7/19/2010	7/19/2010	7/19/2010	7/19/2010	8/17/2006	10/4/2006	10.55.55001	4/3/2007	2/7/2008	8/9/2006			Filing Date
CA 2,543,784	CA 2,251,709	7338734	8148013	8148013			4712302			239780			CN 02827276.5		2007202605			7781098	7553584	1352436	1352436				10-90929452	10-0912754			1352436	60135495.8-08	1352436	1352436		ZL01817679.8	242456	8039152		7722991			Pat No.
		3/4/2008								3/31/2010			8/27/2008					8/24/2010	6/30/2009	8/20/2008	8/20/2008				11/24/2009	8/11/2009			8/20/2008	8/20/2008	8/20/2008	8/20/2008				10/18/2011		5/25/2010			Pat. Date
Cathode materials for secondary (rechargeable) lithium batteries	Cathode materials for secondary (rechargeable) lithium batteries	Conductive Lithium Storage Electrode	Design and Manufacturing Process for Batteries	Decise and Manufacturing December for Dattering	Tin in an Active Support Matrix	Tin in an Active Support Matrix	High Performance Anode Material For Lithium-Ion Battery	High Performance Anode Material For Lithium-Ion Battery	High Performance Anode Material For Lithium-Ion Battery	AppTitle																															
John Goodenough	John Goodenough	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Yet Ming Chiang et al.	Vol Mine Obiographic	Richard Monique et al.	Richard Monique et al.	Pu Zhang et al.	Pu Zhang et al.	Pu Zhang et al.	inventor														

1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	1224	A123 Case Number
																													A123 SubCase
United States	Se	United Kingdom	Japan	Japan	Japan	Japan	Japan	Italy	France	Europe	Canada	Country																	
United States Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	United States Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	United States Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Owner
Pending	Granted	Pending	Pending	Pending	Pending	Granted	Granted	Granted	Pending	Pending	Pending	Pending	Pending	Granted	Granted	Granted	Status												
ORD	CaseType																												
US 20070281215 Con	US 20070166618 Con	US 20070117019 Con	US 20050244321 Con	US 20050003274 Con	US 20030082454 Con	US 12/952978								JP 2010-056097 Div	JP 2009-110967 Div	JP 2007-294463 Div	JP 2007-214147 Div	JP 2000-509193			EP 2282368 Div.	EP 1755183 Div.	EP 1755182 Div.	EP 1501137 Div.	EP 10186105.2 Div				App. No.
03.08.2007	29.12.2006	29.12.2006	13.07.2005	30.07.2004	02.12.2002	23.11.2010	08.09.2010	20.08.2010	20.08.2010	20.08.2010	23.04.1999	21.04.1997	23.04.1997	07.12.2009	17.12.2008	14.05.2007	14.05.2007	4/23/1997	23.04.1997	23.04.1997	23.04.1997	23.04.1997	23.04.1997	23.04.1997	23.04.1997	23.04.1997	23.04.1997	24.12.1997	Filing Date
							US 7960058 Con	ns 7,972,728 Con	US 7,964,308 Con	US 7,955,733 Con	vid 864'168'9 SN	US 5,910,382	EP-FR 0904607					JP 4369535	EP-GB 0904607	EP-DE 69731382						EP-IT 0904607	EP 0904607	US 6,514,640 Con	Pat No.
																												_	Pat. Date
Cathode materials for secondary (rechargeable) lithium batteries	AppTitle																												
John Goodenough	Inventor																												

1229	1229	1229	1229	1229	1229	1229	1229	1229	1229	1229	1229	1229	1229	1229	1229	1228	1227	1226	1225	1224	1224	1224	1224	1224	1224	1224	1224	1224	A123 Case Number
																													A123 SubCase
Japan	Italy	Italy	Germany	Germany	France	France	Europe	Europe	Europe	Canada	Canada	Canada	Canada	Canada	Canada	Japan	Japan	Japan	Japan	United States	Country								
Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	United States Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Licensed (LiFePO4 + C)	Owner															
Pending		Granted	Granted	Granted	Granted	Granted	Pending	Granted	Granted	Granted	Granted	Granted	Pending	Pending	Pending	Pending	Pending		Pending	Pending	Pending	Status							
ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	ORD	CaseType															
JP 2001015111	EP-IT 1796189	EP-IT 1049182	EP-DE 60041896	EP-DE 60037609	EP-FR 1796189	EP-FR 1049182	EP 20070025160	EP 1796189 Div	EP 1049182											76289001102SN	US 20110039158 Con	no 95621001102 SN	US 20110006270 Con	US 20110006256 Con	US 20100316909 Con	US 20100314589 Con	US 20100314577 Con	US 20100310935 Con	App. No.
01.05.2000	02.05.2000	02.05.2000	02.05.2000	02.05.2000	02.05.2000	02.05.2000	02.05.2000	02.05.2000	02.05.2000	28.04.2000	28.04.2000	28.04.2000	28.04.2000	28.04.2000	30.04.1999	JP 2004178835	JP 09134725	JP 09134724	JP 2001085010	11/23/2010	20.08.2010	08.09.2010	08.09.2010	08.09.2010	20.08.2010	20.08.2010	20.08.2010	20.08.2010	Filing Date
	EP-IT 1796189	EP-IT 1049182	EP-DE 60041896	EP-DE 60037609	EP-FR 1796189	EP-FR 1049182		EP 1796189 Div	EP 1049182	CA 2,658,748	CA 2,658,741	CA 2,658,728	CA 2,625,896	CA 2,307,119	CA 2,270,771	4153288	3484003	3523397	3503195										Pat No.
																				5	0	5		C	C	0	0	0	Pat. Date
Electrode materials with high surface conductivity	NONAQUEOUS ELECTROLYTE SECONDARY BATTERY.	NON-AQUEOUS ELECTROLYTE SECONDARY BATTERY.	NON-AQUEOUS ELECTROLYTE SECONDARY BATTERY.	LITHIUM SECONDARY BATTERY	Cathode materials for secondary (rechargeable) lithium batteries	AppTitle																							
<hq></hq>	<hq></hq>	<b>4</b> Ω>	<hq></hq>	<ntt></ntt>	≺NTT>	<ntt></ntt>	<ntt></ntt>	John Goodenough	Inventor																				

RECORDED: 09/24/2019

Characteric	Michael Hoff, Louis Perry, Eric Bachtell	Method to weld conductors to cell terminals		2	7/24/2012	13/556,816	ORD	Pending	A123-owned	United States		1234
Common   C	<hq:< td=""><td>Synthesis method for carbon material based on LixM1- yM(XO4)n</td><td></td><td></td><td></td><td>US 20070134554 Cor</td><td>ORD</td><td>Granted</td><td>Licensed (LiFePO4 + C)</td><td>United States</td><td></td><td>1231</td></hq:<>	Synthesis method for carbon material based on LixM1- yM(XO4)n				US 20070134554 Cor	ORD	Granted	Licensed (LiFePO4 + C)	United States		1231
Character   Part Part   Part Part Part Part Part Part Part Part	<hq></hq>	Synthesis method for carbon material based on LixM1- yM(XO4)n			21.09.200	US 20040086445	ORD	Granted	Licensed (LiFePO4 + C)	United States		1231
Chance   C	<hq></hq>	Synthesis method for carbon material based on LixM1- yM'(XO4)n		)1	21.09.200	JP 2004509058	ORD	Pending	Licensed (LiFePO4 + C)	Japan		1231
Contract   Carbon	AQ>	Synthesis method for carbon material based on LixM1- yM'(XO4)n		3	21.09.200	EP 1325526	ORD	Pending	Licensed (LiFePO4 + C)	Europe		1231
Convert   Carbon   Parcilling   Parcilling   Carbon   Parcilling   Carbon   Parcilling   Parc	∠HQ>	Synthesis method for carbon material based on LixM1- yM(XO4)n			21.09.200		ORD	Granted	Licensed (LiFePO4 + C)	Canada		1231
Control   Cont	<hq></hq>	Synthesis method for carbon material based on LixM1- yM'(XO4)n			26.09.200		ORD	Granted	Licensed (LiFePO4 + C)	Canada		1231
Contract   Limitor   Casta   Part	<dh></dh>	Method for synthesis of carbon-coated complex oxide with control size		)9	11.09.200	US 2010065787 Con	ORD	Pending	Licensed (LiFePO4 + C)	United States		1230
Charmot   Char	<hq:< td=""><td>Method for synthesis of carbon-coated complex oxide with control size</td><td></td><td>)1</td><td>21.09.200</td><td>WO 02/027824</td><td>ORD</td><td>Pending</td><td>Licensed (LiFePO4 + C)</td><td>PCT</td><td></td><td>1230</td></hq:<>	Method for synthesis of carbon-coated complex oxide with control size		)1	21.09.200	WO 02/027824	ORD	Pending	Licensed (LiFePO4 + C)	PCT		1230
Consect   LimbO   Pending   ORD   Lisa page   Asp. No.   Filing Date   Pati. No.   Pati. Date	<hq></hq>	Method for synthesis of carbon-coated complex oxide with control size		)1	21.09.200	WO 02/027823	ORD	Pending	Licensed (LiFePO4 + C)	PCT		1230
Control   Cont	<hq></hq>	Method for synthesis of carbon-coated complex oxide with control size		)1	21.09.200	CN 101453020	ORD	Pending	Licensed (LiFePO4 + C)	PCT		1230
Located   LifePOA	<hq></hq>	Method for synthesis of carbon-coated complex oxide with control size	1318		21.09.200	US20040033360	ORD	Granted	Licensed (LiFePO4 + C)	United States		1230
Lowersor         Status         Case type         App No.         Finiting Date         Pall No.         Pall No.         Pall No.         App 188         App 188           Locrosed (LF6PO4 LCF6PO4 LCF6PO	<hq></hq>	Method for synthesis of carbon-coated complex oxide with control size	0879839		28.02.200	KR 20030045791	ORD	Granted	Licensed (LiFePO4 + C)	Korea		1230
Lebersed (LifePO4   Granted   ORD   US 20060196591 Con   21.06.2000   EP GB 1796189   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 20060196591 Con   21.06.2000   EP GB 1796189   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 20060196591 Con   21.06.2000   EP GB 1796189   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 20060196591 Con   21.06.2000   EP GB 1796189   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 20060196591 Con   21.06.2000   EP GB 1796189   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 20060196591 Con   04.11.2005   7344659   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 20060060827 Con   04.11.2005   7344659   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 2006026772 Div   19.02.2008   7815819   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 2006026772 Div   19.02.2008   7815819   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 12891087   22.11.2010   Electrode materials with high surface conductivity   Lebersed (LifePO4   Granted   ORD   US 12891087   22.11.2010   GA 2320661   Welthod for synthesis of carbon-coaled complex oxide   Lebersed (LifePO4   Granted   ORD   CN 1478310   21.09.2001   CN 100421289   Method for synthesis of carbon-coaled complex oxide   Lebersed (LifePO4   Parding   ORD   EP 1325625   21.09.2001   CN 100421289   Method for synthesis of carbon-coaled complex oxide   Lebersed (LifePO4   Parding   ORD   EP 20100180996 biv   21.09.2001   CN 100421289   Method for synthesis of carbon-coaled complex oxide   Lebersed (LifePO4   Parding   ORD   EP 20100180996 biv   21.09.2001   CN 100421289   Method for synthesis of carbon-coaled complex oxide   CN 100421289   Method for synthe	<hq></hq>	Method for synthesis of carbon-coated complex oxide with control size		)1	21.09.200	JP 2004509447	ORD	Pending	Licensed (LiFePO4 + C)	Japan		1230
Cowner         Status         Classitype         App. No.         Iming Date         Pal. No.	<hq></hq>	Method for synthesis of carbon-coated complex oxide with control size		)1		EP 20100180996 Div	ORD	Pending	Licensed (LiFePO4 + C)	Europe		1230
Common         Status         CASISTYPO         App. No.         Finity Date         PRI.No.         PRI.No.         PRI.No.         PRI.No.         PRI.No.         App. ritie         App.	<ΩH>>	Method for synthesis of carbon-coated complex oxide with control size		)1	21.09.200	EP 1325525	ORD	Pending	Licensed (LiFePO4 + C)	Europe		1230
Lowers   Clare   Cla	<dh>&gt;</dh>	Method for synthesis of carbon-coated complex oxide with control size	)421289		21.09.200	CN 1478310	ORD	Granted	Licensed (LiFePO4 + C)	China		1230
Cowner         Status         Cases type         App. No.         Fining Date         Pal. No.         Pal. No.         Pal. Date         App title           Licensed (LFePO4 Ferding         ORD         JP 2008188807 Div         22.02.2008         EP-GB 1049182         Electrode materials with high surface conductivity           Licensed (LFePO4 Ferding         Granted         ORD         EP-GB 1049182         02.05.2000         EP-GB 1049182         Electrode materials with high surface conductivity           Licensed (LFePO4 Ferding         Granted         ORD         US 20020195591 Con         21.06.2002         EP-GB 1796189         Electrode materials with high surface conductivity           Licensed (LFePO4 Ferding         Granted         ORD         US 20040140458 Div         22.12.2003         6962868         Electrode materials with high surface conductivity           Licensed (LFePO4 Ferding         Granted         ORD         US 20060060827 Con         04.11.2005         7344659         Electrode materials with high surface conductivity           Licensed (LFePO4 Ferding         Granted         ORD         US 20080257721 Div         19.02.2008         7815819         Electrode materials with high surface conductivity           Licensed (LFePO4 Ferding         Perding         ORD         US 12989067         06.10.2010         Electrode materials with high surface conductivity<	<hq></hq>	Method for synthesis of carbon-coated complex oxide with control size	422446		21.09.200		ORD	Granted	Licensed (LiFePO4 + C)	Canada		1230
Licensed (LiFePO4 Pending ORD JP 2008186807 Div 22.02.2008 EP-GB 1049182 Electrode materials with high surface conductivity Licensed (LiFePO4 Granted ORD EP-GB 1049182 02.05.2000 EP-GB 1049182 Electrode materials with high surface conductivity Licensed (LiFePO4 Granted ORD EP-GB 1049182 02.05.2000 EP-GB 1796189 Electrode materials with high surface conductivity Licensed (LiFePO4 Granted ORD US 20020195591 Con 21.06.2002 EP-GB 1796189 Electrode materials with high surface conductivity Licensed (LiFePO4 Granted ORD US 20020195591 Con 21.06.2002 6855273 Electrode materials with high surface conductivity Electrode (LiFePO4 Granted ORD US 20040140458 Div 22.12.2003 6962666 Electrode materials with high surface conductivity Licensed (LiFePO4 Granted ORD US 20060060827 Con 04.11.2005 7344659 Electrode materials with high surface conductivity Licensed (LiFePO4 Granted ORD US 20080257721 Div 19.02.2008 7815819 Electrode materials with high surface conductivity Electrode	-\OH>	Method for synthesis of carbon-coated complex oxide with control size	320661		26.09.200		ORD	Granted	Licensed (LiFePO4 + C)	Canada		1230
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