

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4687433

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
XIN XIA	08/07/2017
JENS PAULSEN	07/31/2017
SHINICHI KUMAKURA	08/02/2017
SONG-YI HAN	08/01/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	UMICORE
<b>Street Address:</b>	RUE DU MARAIS 31
<b>City:</b>	BRUSSELS
<b>State/Country:</b>	BELGIUM
<b>Postal Code:</b>	B-1000
<b>Name:</b>	UMICORE KOREA LTD.
<b>Street Address:</b>	410, CHAAM-DONG
<b>Internal Address:</b>	CHEONAN
<b>City:</b>	CHUNGNAM
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	330-200
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15545348
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(919)998-5701
<i>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.</i>	
<b>Phone:</b>	9199985700
<b>Email:</b>	mcapozzi@brinksgilson.com
<b>Correspondent Name:</b>	BRINKS GILSON & LIONE
<b>Address Line 1:</b>	P.O. BOX 110285
<b>Address Line 4:</b>	RESEARCH TRIANGLE PK, NORTH CAROLINA 27709
<b>ATTORNEY DOCKET NUMBER:</b>	13810-166

<b>NAME OF SUBMITTER:</b>	ALLYN B. ELLIOTT, REG. NO. 56745
<b>SIGNATURE:</b>	/Allyn B. Elliott/
<b>DATE SIGNED:</b>	11/14/2017
<b>Total Attachments: 2</b> source=13810-166_2017-11-14_Assignment#page1.tif source=13810-166_2017-11-14_Assignment#page2.tif	

## ASSIGNMENT

WHEREAS, I/we, Xin XIA, residing at 71, Seobukgu, 3Gongdan 2Ro, Seobuk-Gu, Cheonan, Korea 331-200; Jens PAULSEN, residing at Hanul Apt. 108-201, 160-1 ShinSeong Dong, Yuseong-Gu, Daejeon, Daejeon 305-707, Korea; Shinichi KUMAKURA, residing at Kanocho 2-9-18-705, Kobe, Japan 761-4146, and Song-Yi HAN, residing at Daejeon, Seo-gu, Dunsan-ro, Daejeon, Korea 302-150, respectively, have made certain new and useful inventions and improvements in:

Lithium Metal Oxide Cathode Powders for High Voltage Lithium-Ion Batteries;

set forth in:

- (1)  United States provisional patent application
  - (a)  bearing Application No. \_\_\_\_\_, filed on \_\_\_\_\_; or
  - (b)  to be filed herewith;
- (2)  United States nonprovisional patent application
  - (a)  filed herewith; or
  - (b)  bearing Application No. 15/545,348, filed on July 21, 2017, and
- (3)  International Patent Application No. \_\_\_\_\_, designating the United States and filed on \_\_\_\_\_;

AND WHEREAS, 1) Umicore, a corporation, having an office and place of business at Rue du Marais 31, B-1000, Brussels, Belgium; and 2) Umicore Korea, Ltd., a corporation, having an office and place of business at 410, Chaam-Dong, Cheonan, Chungnam, Korea 330-200, (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I/we have sold, assigned, set over, and transferred, and by these presents do sell, assign, set over and transfer unto said Assignee, its successors or assigns, the entire right, title and interest in and to said inventions and improvements, the right to file applications for all countries in and to all inventions and improvements disclosed in the aforesaid application, the entire right, title and interest in and to the said application, any and all other applications for Letters Patent on said inventions and improvements, including all provisional, nonprovisional, divisional, continuation, continuation-in-part, and renewal applications based in whole, or in part, upon said inventions or improvements, or upon said applications, and all Letters Patent which may be granted therefrom, and all reissues, reexaminations, or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and I/we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States

Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, I/we do hereby agree that I/we and my/our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, I/we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me/us and that full right to convey the same as herein expressed is possessed by me/us.

AND, I/we hereby authorize and request the attorneys of Brinks, Gilson & Lione to insert in the spaces provided above the filing date, application number, and attorney's docket number of said application when known.

IN TESTIMONY WHEREOF, I have hereunto set my hand this

7 day of Aug 2017

  
Xin XIA

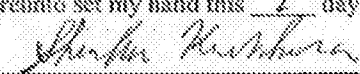
IN TESTIMONY WHEREOF, I have hereunto set my hand this

31 day of July 2017

  
Jens PAULSEN

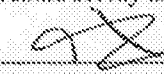
IN TESTIMONY WHEREOF, I have hereunto set my hand this

2 day of August 2017

  
Shimichi KUMAKURA

IN TESTIMONY WHEREOF, I have hereunto set my hand this

1 day of 8 2017

  
Song-Yi HAN