504823500 03/16/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4870235

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JEROEN HEULENS	02/17/2017
DAVID VAN HOREBEEK	02/16/2017
MAARTEN QUIX	02/20/2017
SYBOLT BROUWER	02/16/2017

RECEIVING PARTY DATA

Name:	UMICORE		
Street Address:	RUE DU MARAIS 31		
City:	BRUSSELS		
State/Country:	BELGIUM		
Postal Code:	B-1000		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	15503416	

CORRESPONDENCE DATA

Fax Number: (919)998-5701

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: 9199985700

Email: mcapozzi@brinksgilson.com

Correspondent Name: MCAPOZZI@BRINKSGILSON.COM

Address Line 1: P.O. BOX 110285

Address Line 4: RESEARCH TRIANGLE PK, NORTH CAROLINA 27709

ATTORNEY DOCKET NUMBER:	13810-154
NAME OF SUBMITTER:	ALLYN B. ELLIOTT
SIGNATURE:	/Allyn B. Elliott/
DATE SIGNED:	03/16/2018

Total Attachments: 10

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Collins Assignment

Docket No.: 13810-154 Application Number: 15/503,416

ASSIGNMENT

WHEREAS, I/we, <u>Jeroen HEULENS</u>, residing at <u>Malendriesstraat 19</u>, <u>Kerkom, BE, B-3370</u>; <u>David VAN HOREBEEK</u>, residing at <u>Broekstraat 2A</u>, <u>Tielt-Winge</u>, <u>BE, B-3390</u>; <u>Maarten QUIX</u>, residing at <u>Adolf Greinerstraat 14</u>, <u>Hoboken</u>, <u>BE</u>, <u>B-2660</u>; and <u>Sybolt BROUWER</u>, residing at <u>Leerkens 2</u>, <u>Berchem</u>, <u>BE</u>, <u>B-2600</u>, respectively, have made certain new and useful inventions and improvements in:

Process for Smelting 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)	\boxtimes	United States nonprovisional patent application
	(a)	filed herewith; or
	(b)	bearing Application No. 15/503,416, filed on February 13,
		<u>2017</u> , and
(3)		International Patent Application No, designating the United
		States and filed on;

AND WHEREAS, <u>Umicore</u>, a corporation, having an office and place of business at <u>Rue du Marais 31, B-1000</u>, <u>Brussels</u>, <u>Belgium</u>; (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

Docket No.: 13810-154 Application Number: 15/503,416

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 WHER	EOF, I have hereunto set my hand this day of	ĕ
	Jeroen HEULENS	
IN TESTIMONY WHER	OF, I have hereunto set my hand this 16 day of 660000000000000000000000000000000000	ar je
	David VAN HOREBEEK	
IN TESTIMONY WHERI	OF, I have hereunto set my hand this day of,	
	Maarten QUIX	•

	Docket No.: 13810-154 Application Number: 15/503,416 Page 3
IN TESTIMONY WHEREOF, I have hereunto set my hand this day	y of
Sybolt BROUWER	

Cortas Marianens

Docket No.: 13810-154 Application Number: 15/503,416 Page 1

ASSIGNMENT

WHEREAS, I/we, <u>Jeroen HEULENS</u>, residing at <u>Malendriesstraat 19</u>, <u>Kerkom, BE, B-3370</u>; <u>David VAN HOREBEEK</u>, residing at <u>Broekstraat 2A</u>, <u>Tielt-Winge</u>, <u>BE, B-3390</u>; <u>Maarten QUIX</u>, residing at <u>Adolf Greinerstraat 14</u>, <u>Hoboken, BE, B-2660</u>; and <u>Sybolt BROUWER</u>, residing at <u>Leerkens 2</u>, <u>Berchem, BE, B-2600</u>, respectively, have made certain new and useful inventions and improvements in:

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			<u>2017</u> , and
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AND WHEREAS, <u>Umicore</u>, a corporation, having an office and place of business at <u>Rue du Marais 31, B-1000</u>, <u>Brussels</u>, <u>Belgium</u>; (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

Docket No.: 13810-154 Application Number: 15/503,416

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.

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IN TESTIMONY WHEREOF, I have he	ereunto set my hand this <u>47</u>	day of February, 2017
	Jeroen HEULENS	11 2
		TOWN.
IN TESTIMONY WHEREOF, I have he	ereunto set my hand this	_day of
	David VAN HOREBEEK	•
IN TESTIMONY WHEREOF, I have he	ereunto set my hand this	_day of
•	Maarten OUIX	

Docket No.: 13810-154 Application Number; 15/503,416 Page 3

IN TESTIMONY WHEREOF, I have hereunto set my hand this ______ day of__

day of Villen fry

Sybolt BROUWER

ASSIGNMENT

WHEREAS, I/we, <u>Jeroen HEULENS</u>, residing at <u>Malendriesstraat 19</u>, Kerkom, BE B-3370, Korea; **David VAN HOREBEEK**, residing at <u>Broekstraat 2A</u>, <u>Tielt-Winge</u>, BE B-3390; <u>Maarten QUIX</u>, residing at <u>Adolf Greinerstraat 14</u>, <u>Hoboken</u>, BE B-2600; and <u>Sybolt BROUWER</u>, residing at <u>Leerkens 2</u>, <u>Berchem</u>, <u>BE B-2600</u>, respectively, have made certain new and useful inventions and improvements in:

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	(a)	☐ file	nd herewith; or
	(b)	⊠ ber	aring Application No.15/503,416, filed on February 13,
		<u>20</u>	<u>17,</u> and
(3)		Internation	al Patent Application No, designating the United
		Ctatac and	maa aa

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		Jeroen HEULENS
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		David VAN HOREBEEK
N TESTIN		David VAN HOREBEEK
		David VAN HOREBEEK

IN TESTIMONY WHEREOF, I have hereunto set my hand this ______ day of _______.

Sybolt BROUWER

PATENT REEL: 045254 FRAME: 0568

RECORDED: 03/16/2018