PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5629367

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| JI-WON HWANG | 05/20/2019 |
| YEAN-SIK CHOI | 05/20/2019 |
| JI-EUN KIM | 05/20/2019 |
| CHANG-HYUN SUNG | 05/20/2019 |
| SANG-HOON LEE | 05/20/2019 |

RECEIVING PARTY DATA

| Name: | LG CHEM, LTD. | |
|-----------------|-----------------------------------|--|
| Street Address: | 128, YEOUI-DAERO, YEONGDEUNGPO-GU | |
| City: | SEOUL | |
| State/Country: | KOREA, REPUBLIC OF | |
| Postal Code: | 07336 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16479713 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | 121594-5059 | |
|-------------------------|---------------------|--|
| NAME OF SUBMITTER: | ROBERT J. GOODELL | |
| SIGNATURE: | /Robert J. Goodell/ | |
| DATE SIGNED: | 07/22/2019 | |
| · | | |

Total Attachments: 2

PATENT REEL: 049818 FRAME: 0899 source=121594-5059_CombDecAssign#page1.tif source=121594-5059_CombDecAssign#page2.tif

> PATENT REEL: 049818 FRAME: 0900

| COMBINED DECLARATION & ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION | | |
|--|---|--|
| Title | BATTERY MANAGEMENT SYSTEM AND BATTERY PACK INCLUDING SAME | |
| DECLARATION | | |
| As a below named inventor, I hereby declare that: | | |
| This declaration | n is directed to: | |
| The attached application, or | | |
| ⊠ | .S. application or PCT international application number PCT/KR2018/010316 filed on September 4, | |
| The above-ide | ntified application was made or authorized to be made by me. | |
| I believe that I | am the original inventor or an original joint inventor of a claimed invention in the application. | |
| I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. | | |
| Note to Inventor: 37 C.F.R. § 1.63(c) states: A person may not execute an oath or declaration for an application unless that person has reviewed and understands the contents of the application, including the claims, and is aware of the duty to disclose to the Office all information known to the person to be material to patentability as defined in § 1.56. | | |
| ASSIGNMENT | | |
| WHEREAS, I ha | eve made an invention described and/or claimed in the above-identified application; and | |
| WHEREAS, LG CHEM, LTD., a corporation of the Republic of Korea whose post office address is 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, 07336, Republic of Korea (hereinafter referred to as the "Assignee"), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the application of United States Letters Patent on this invention and the Letters Patent to be issued upon this application; | | |
| NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from the Assignee is hereby acknowledged, I have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, and its lawful successors and assigns, my entire right, title, and interest in and to this invention and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of such applications, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and I hereby authorize and request the Director of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent of this invention to the Assignee, and its successors and assigns, in accordance with the terms of this Assignment; | | |

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COMBINED DECLARATION & ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION

AND, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I have not executed and will not execute any agreement in conflict with this Assignment;

AND, I HEREBY further covenant and agree that I will, without further consideration, communicate with the Assignee, and its successors and assigns, any facts known to me respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, and its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid the Assignee, and its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, and its successors and assigns.

| IN TESTIMONY WHEREOF, I have hereunto set my hands. | |
|--|----------------------------|
| First Inventor (Full Legal Name): HWANG, Ji-Won Signature: | Date: 20. May 2019 |
| Second Inventor (Full Legal Name): CHOI, Yean-Sik Signature: <u> </u> | Date: 20, May 20/9 |
| Third Inventor (Full Legal Name): KIM, Ji-Eun Signature: 上IM ブリー EUN | Date: >0, May, 2019 |
| Fourth Inventor (Full Legal Name): SUNG, Chang-Hyun Signature: SUHG Chang-Hyun | Date: 20. May 2019 |
| Fifth Inventor (Full Legal Name): LEE, Sang-Hoon Signature: | Date: <u>20, MAY, 2019</u> |
| Sixth Inventor (Full Legal Name): Signature: | Date: |
| Seventh Inventor (Full Legal Name): Signature: | Date: |

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PATENT REEL: 049818 FRAME: 0902

RECORDED: 07/22/2019