PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5465214

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| NO JIN PARK | 03/18/2019 |
| JIN KON KIM | 03/18/2019 |
| CHUNG RYONG CHOI | 03/18/2019 |
| SUNG SOO YOON | 03/18/2019 |

RECEIVING PARTY DATA

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| City: | SEOUL | |
| State/Country: | KOREA, REPUBLIC OF | |
| Postal Code: | 07336 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16340281 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | LGCHEM 3.3F-1767 | |
|-------------------------|------------------|--|
| NAME OF SUBMITTER: | CINDY CORB | |
| SIGNATURE: | /Cindy Corb/ | |
| DATE SIGNED: | 04/09/2019 | |

Total Attachments: 2

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PATENT REEL: 048832 FRAME: 0840

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PATENT REEL: 048832 FRAME: 0841

| | N AND ASSIGNMENT FOR DESIGN APPLICATIONS | Attorney Docket Number: | |
|--|---|--|------------------------------|
| Title of Invention | BLOCK COPOLYMER CONTAINING PHOTO-SENSITIVE MOIETY | | |
| As the below | r named inventor(s) (hereinafter design | nated as the undersigned), I/We I | nereby declare that: |
| is directed to | <u>:</u> | | ~(, |
| | The attached application, or | | |
| Ŀ | United States application or PCT int | ernational application number _ | PCT/KR2017/011442 |
| | filed on October 17, 2017 | | : |
| The above-identifie | d application was made or authorized to | o be made by me/us. | |
| I/We believe that I a | am the original inventor or an original jo | int inventor of a claimed invention | in the application. |
| I/We hereby acknown by fine or imprisonn | wledge that any willful false statement n nent of not more than five (5) years, or | nade in this declaration is punisha both. | ble under 18 U.S.C. 1001 |
| | dersigned as a sole inventor (if only or evented certain new and useful improve | | |
| AND, WHEREAS LG Chem, Ltd., (hereinafter referred to as assignee), a corporation of Korea whose mailing address is 128, Yeoul-daero; Yeongdeungpo-gu; Seoul; REPUBLIC OF KOREA 07336 is desirous of acquiring the entire right, title and interest in the same. | | | |
| NOW, THEREFORE, in consideration of the sum of one dollar, the receipt wherof is acknowledged, and other good and valuable consideration, the undersigned hereby sell(s), assign(s) and set(s) over to said assignee my/our entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me/us and my/our legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the e | | | |
| FULL NAME | OF INVENTOR(S) | | |
| Inventor one | PARK, No Jin | Date: MCVC | h. 18. 2019 |
| Signature: | <u> </u> | | |
| x Addition | al inventors or a legal representative are be | eing named on1 addition | nal form(s) attached hereto. |
| PLEASE SE | E THE WARNINGS ON THE LAST PAGE | OF THIS FORM. | |

| DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATIONS | ADDITIONAL INVENTOR(S) Supplemental Sheet | |
|--|---|--|
| Inventor two: KIM, Jin Kon Signature: | Date: Mor. 18. 2019 | |
| Inventor three: CHOI, Chung Ryong Signature: | Date: Mar. 18. 2019 | |
| inventor four: YOON, Sung Soo Signature: | Date: Man, 18, 2019 | |
| Inventor five: Signature: | | |
| Inventor six: Signature: | Date: | |
| Inventor seven: Signature: | Date: | |
| Inventor eight: Signature: | Date: | |
| Inventor nine: Signature: | | |
| Inventor ten: Signature: | | |
| WARNING: According to 37 C.F.R. 1.63 (c), "[a] person may not execute an oath or declaration unless the 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 be material to patentability as defined in 1.56." Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit trad authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or Issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization FTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. | | |

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