PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT4202213

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| CHANG-SHU KUO | 12/13/2016 |
| IN-GANN CHEN | 12/14/2016 |
| HUNG-TAO CHEN | 12/14/2016 |
| HAN-HSUAN CHENG | 12/13/2016 |

RECEIVING PARTY DATA

| Name: | NATIONAL CHENG KUNG UNIVERSITY |
|-----------------|--------------------------------|
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| City: | TAINAN CITY |
| State/Country: | TAIWAN |
| Postal Code: | 701 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15391839 |

CORRESPONDENCE DATA

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

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| ATTORNEY DOCKET NUMBER: | GDIP00415-USP |
|-------------------------|---------------|
| NAME OF SUBMITTER: | MICHAEL LEE |
| SIGNATURE: | /Michael Lee/ |
| DATE SIGNED: | 12/28/2016 |

Total Attachments: 4

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PATENT 504155539 REEL: 040777 FRAME: 0279

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| Docket | No.: | GD#90418-USP |

ASSIGNMENT

Chang-Shu Kue

WHEREAS, I (we),

| whose post office address(es) appear(s) be certain new and useful improvements in Method of Fabricating Conductive Thin File | elow, hereinafter referred to as ASSIGNOR, have invented a |
|--|--|
| • | for which an application for United States Letters Patent was |
| filed on: | Serial No.: |
| hereinafter referred to as ASSIGNEE, is desi | G KUNG UNIVERSITY 22 Rd., East Dist., Taiwan (R.O.C.) rous of acquiring the entire right, title and interest in and to the |
| same in the United States; | |
| acknowledged, I (we), ASSIGNOR, by these entire right, title, and interest in and to said | and valuable consideration, receipt of which is hereby presents do sell, assign and transfer unto said ASSIGNEE, the INVENTION and application throughout the United States of ent granted on any division, continuation, continuation-in-part |
| connection with the filing, prosecution application(s) in the United States for sai required to affirm the rights of ASSIGNEE ASSIGNOR also agrees, without further communicate to ASSIGNEE at ASSIGNEE'S that are within ASSIGNOR'S possession or behalf of ASSIGNEE that lawfully may be read defense of any patent application or | to execute any documents that legally may be required in and maintenance of said application or any other patent d INVENTION, including additional documents that may be in and to said INVENTION, all without further consideration consideration and at ASSIGNEE'S expense, to identify and request documents and information concerning the INVENTION control, and to provide further assurances and testimony on quired of ASSIGNOR in respect of the prosecution, maintenance r patent encompassed within the terms of this instrument, and shall extend to ASSIGNOR'S heirs, executors, administrators |
| issue any and all Letters Patent referred to and interest in and to the same, for ASSIGNEE'S legal representatives and succe | es and requests the Commissioner of Patents and Trademarks to above to ASSIGNEE, as the ASSIGNEE of the entire right, title FNEE'S sole use and behoof) and for the use and behoof of essors, to the full end of the term for which such Letters Patent same would have been held by ASSIGNOR had this assignment |
| ASSIGNOR authorizes Raymond Y needed to effect its recordal in the U.S. Pater | 7. Chan to insert or complete any information in this document and Trademark Office. |
| ASSIGNOR NAME: Chang-Shu Kuo ADDRESS: Department of Materials Science Tainan 761, Taiwan R.O.C. | and Engineering, National Cheng Kung University, I University Rd., |
| Charpolin Ko | Dec 13, 2016 |
| SIGNATURE Y | DATE |

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Attorney's Docket No.: GDIP66415-USP

ASSIGNMENT

| WHEREAS, I (we), In-Gann Chen whose post office address(es) appear(s) below, hereing | ulter referred to as ASSIGNOR, have invented a |
|--|---|
| certain new and useful improvements in Method of Fabricating Conductive Thin Film | |
| (hereinafter referred to as the INVENTION) for which a executed on even data herewith executed on: | an application for United States Letters Patent was |
| filed on: | Serial No.: |
| WHEREAS, NATIONAL CHENG KUNG whose post office address is No.1, Daxue Rd., East | Dist., Tainan City 701, Taiwan (B.O.C.) |
| hereinafter referred to as ASSIGNEE, is desirous of ac same in the United States; | quiring the entire right, title and interest in and to the |
| NOW, THEREFORE, for good and val acknowledged, I (we), ASSIGNOR, by these presents entire right, title, and interest in and to said INVENT America, including any and all Letters Patent grante and reissue of said application. | ION and application throughout the United States of |
| ALSO, ASSIGNOR hereby agrees to execu- connection with the filing, prosecution and main application(s) in the United States for said INVEN- required to affirm the rights of ASSIGNEE in and to ASSIGNOR also agrees, without further considerat communicate to ASSIGNEE at ASSIGNEE's request do that are within ASSIGNOB's possession or control, behalf of ASSIGNEE that lawfully may be required of a and defense of any patent application or patent of ASSIGNOR's obligations under this instrument shall ex- and other legal representatives. | TION, including additional documents that may be said INVENTION, all without further consideration, ion and at ASSIGNEE'S expense, to identify and suments and information concerning the INVENTION and to provide further assurances and testimony on ASSIGNOR in respect of the prosecution, maintenance encompassed within the terms of this instrument. |
| ALSO, ASSIGNOR hereby authorizes and requissue any and all Letters Patent referred to above to / and interest in and to the same, for ASSIGNEE'S sea ASSIGNEE'S legal representatives and successors, to to may be granted, as fully and entirely as the same would and sale not been made. | ole use and behoof; and for the use and behoof of he full end of the term for which such Letters Patent |
| ASSIGNOR authorizes Raymond Y. Chan to needed to effect its recordal in the U.S. Patent and Trac | insert or complete any information in this document demark Office. |
| ASSIGNOR NAME: In-Gann Chen ADDRESS: Department of Materials Science and Engineer Tainan 701, Taiwan R.O.C | ing, National Cheng Kung University, I University Rd., |
| gn-6- (C- | Dec \$4, 2016 |

DATE

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| Attorney's | | | | | |
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| Docket No.: | <u> GDIP004</u> | 15:0 | SC | | |

ASSIGNMENT

| whose post of certain new ar | HEREAS, I (we), lice address(es) a ad useful improve bricating Conduc | ppear(s) below, hereinafter referred to as ASSIGNOR, have invented a ments in |
|------------------------------|--|--|
| (hereinafter re | | (VENTION) for which an application for United States Letters Patent was |
| | filed on: | Serial No.: |
| whose post of | ffice address is | NAL CHENG KUNG UNIVERSITY No.1, Dexue Rd., East Dist., Tainan City 701, Taiwan (R.O.C.) |
| hereinafter re- | | WEE, is desirous of acquiring the entire right, title and interest in and to the |

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I (we), ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application.

ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to identify and communicate to ASSIGNEE at ASSIGNEE'S request documents and information concerning the INVENTION that are within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR'S obligations under this instrument shall extend to ASSIGNOR'S beirs, executors, administrators and other legal representatives.

ALSO, ASSIGNOR hereby authorizes and requests the Commissioner of Paients and Trademarks to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE's sole use and behoof; and for the use and behoof of ASSIGNEE's legal representatives and successors, to the full end of the term for which such Letters Paient may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

ASSIGNOR authorizes Raymond Y. Chan to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.

ASSIGMOR NAME: Hung-Too Chen

ADDRESS: Department of Materials Science and Engineering, National Cheng Kung University, 1 University Rd., Tainan 761, Taiwan R.O.C.

SIGNATURE DATE

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| whose post of certain new as Method of Fa | nd useful improvement obrigating Conductive | ar(s) below, hereinaft its in Thin Film INTION) for which an | | | | |
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| whose post of | ffice address is No | L CHENG KUNG UNG UNG UNG LANGE Rd., East I | Dist., Tainan City 70 | | | n and to the |
| same in the U | | , | | | | |
| acknowledged entire right, to America, incl | f, I (we), ASSIGNOR, file, and interest in a | for good and value , by these presents do nd to said INVENTIC effers Patent granted | o sell, assign and tr N and application | ansfer unto throughou | said As: the Unit | SIGNEE, the ed States of |
| connection wapplication(s) required to at ASSIGNOB a communicate that are within behalf of ASS and defense ASSIGNOR'S | with the filing, prose in the United State film the rights of At diso agrees, without to ASSIGNEE at ASSI in ASSIGNOR'S poss IGNEE that lawfully not any patent applie | by agrees to execute secution and mainte es for said INVENTI SSIGNEE in and to s further consideration IGNEE'S request document of Astronomy be required of Astronomy to patent en s instrument shall extra | nance of said ap ON, including add aid INVENTION, a n and at ASSIGN aments and informa id to provide furth SSIGNOR in respect compassed within | plication itional doc itional doc it without EE'S expe ition conce er assurance of the pro- | or any comments to further comments to it ming the loss and to secution, to of this | other patent hat may be onsideration, dentify and INVENTION estimony on maintenance instrument. |
| issue any and and interest i ASSIGNEE'S | all Letters Patent ref in and to the same, I legal representatives and id, as fully and entire | authorizes and reque ferred to above to AS for ASSIGNEE'S sole and successors, to the ly as the same would | SIGNEE, as the AS a use and behoof; a full end of the ter | SIGNEE of and for the m for which | f the entir e use and di such La | e right, title I behoof of exers Patent |
| | | aymond Y. Chan to it U.S. Patent and Trade | | ny informa | tion in th | is document |
| ADDRESS: D | AME: Han-Hsuan C Separtment of Materials Sainan 701, Taiwan R.O | Science and Engineerin | g, National Cheng Ki | ang Univers | ity, 1 Univ | ersity Rd., |
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RECORDED: 12/28/2016