504975744 06/25/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5022490

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

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| GUANGWEI XU | 05/24/2018 |
| ZHIHENG HAN | 05/24/2018 |
| WEI WANG | 05/24/2018 |
| CONGYAN LU | 05/24/2018 |
| LINGFEI WANG | 05/24/2018 |
| LING LI | 05/24/2018 |
| MING LIU | 05/24/2018 |

RECEIVING PARTY DATA

| Name: | INSTITUTE OF MICROELECTRONICS, CHINESE ACADEMY OF SCIENCES |
|-----------------|--|
| Street Address: | NO. 3 BEITUCHENG WEST ROAD, CHAOYANG DISTRICT |
| City: | BEIJING |
| State/Country: | CHINA |
| Postal Code: | 100029 |

PROPERTY NUMBERS Total: 1

| Property Type | Number | | | | |
|---------------------|----------|--|--|--|--|
| Application Number: | 16065582 | | | | |

CORRESPONDENCE DATA

Fax Number:

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Correspondent Name: HAMRE, SCHUMANN, MUELLER & LARSON, P.C.

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| ATTORNEY DOCKET NUMBER: | 13496.0024USWO |
|-------------------------|----------------|
| NAME OF SUBMITTER: | RONG YANG |
| SIGNATURE: | /rongcyang/ |
| DATE SIGNED: | 06/25/2018 |

PATENT 504975744 REEL: 046193 FRAME: 0067

Total Attachments: 2

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> PATENT REEL: 046193 FRAME: 0068

Docket No. 13496.0024USWO

ASSIGNMENT OF PATENT APPLICATION

WHEREAS,

- 1. **Guangwei XU** having an address of No. 3 Beitucheng West Road, Chaoyang District, Beijing,100029 China
- 2. **Zhiheng HAN** having an address of No. 3 Beitucheng West Road, Chaoyang District, Beijing, 100029 China
- 3. **Wei WANG** having an address of No. 3 Beitucheng West Road, Chaoyang District, Beijing,100029 China
- 4. **Congyan LU** having an address of No. 3 Beitucheng West Road, Chaoyang District, Beijing,100029 China
- 5. **Lingfei WANG** having an address of No. 3 Beitucheng West Road, Chaoyang District, Beijing,100029 China
- 6. **Ling LI** having an address of No. 3 Beitucheng West Road, Chaoyang District, Beijing,100029 China
- 7. **Ming LIU** having an address of No. 3 Beitucheng West Road, Chaoyang District, Beijing,100029 China

| (hereinafter | call | ed "TH | E UND | ERSIC | iNED") | have n | nade | an in | vention | and hav | e exe | ecuted | l an |
|--------------|------|-----------|---------|---------|----------|----------|-------|-------|---------------|---------|-------|--------|-----------|
| application | for | Letters | Patent | of the | United | States | for | this | invention | which | was | filed | on |
| | | , entitle | d MET | THOD | FOR A | .CQUI | RIN(| G CC | NTAC 1 | RESIS | STA | NCE | OF |
| PLANAR I | DEV | TCE, ar | nd whic | h has b | een give | en appli | catio | n ser | ial numb | er | | | <u>.</u> |

and

WHEREAS INSTITUTE OF MICROELECTRONICS, CHINESE ACADEMY OF SCIENCES (hereinafter "ASSIGNEE") a corporation organized under the laws of China and having an office and place of business at No. 3 Beitucheng West Road, Chaoyang District, Beijing, 100029, China wishes to acquire the entire right, title and interest in and to said invention and patent application and any Letters Patent to be obtained therefor;

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, THE UNDERSIGNED hereby sell, assign, and transfer to the ASSIGNEE, its successors, legal representative and assigns, the entire right, title and interest for the United States in and to the invention disclosed in said application, and in and to said application, as well as to all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and THE UNDERSIGNED hereby authorize and request the Commissioner of Patents of the United States to issue all

PATENT REEL: 046193 FRAME: 0069 Letters Patent for said invention to the ASSIGNEE of the entire right, title and interest in and to the same, in accordance with the terms of this instrument.

THE UNDERSIGNED bereby agree that THE UNDERSIGNED, their executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) 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 the UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, it successors or assigns, the entire right, title and interest in and to the said invention, patent applications, Letters Patent, rights, titles, benefits, privileges, and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represent 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 or will be made to others by the UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by the UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED have bereunto set their hand on the dates indicated below.

| Guangwei Xu Guangwei XU | |
|------------------------------|--------------------------|
| Zhihang HAN | <u> </u> |
| Wei WANG | <u> </u> |
| Congyan LU | <u>≥6/8-5-2¥</u> Date |
| Lingfei WANG Lingfei WANG | Date |
| Ling LT | 20/8 , 5 - 24 Date |
| Ming LIU | 2018 S. V4 Date |

PATENT REEL: 046193 FRAME: 0070

RECORDED: 06/25/2018