

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
WONJAE CHANG	07/09/2019
JUNYONG AHN	07/18/2019
HYUNHO LEE	07/09/2019
RECEIVING PARTY DATA	
Name:	LG ELECTRONICS INC.
Street Address:	128, YEQUI-DAERO, YEONGDEUNGPO-GU
City:	SEOUL
State/Country:	KOREA, REPUBLIC OF
Postal Code:	07336
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16520014
CORRESPONDENCE DATA	
Fax Number:	(703)205-8050
<i>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.</i>	
Phone:	7032058000
Email:	tuyen.y.ly@bskb.com, mailroom@bskb.com
Correspondent Name:	BIRCH STEWART KOLASCH & BIRCH LLP
Address Line 1:	8110 GATEHOUSE ROAD, SUITE 100E
Address Line 4:	FALLS CHURCH, VIRGINIA 22042
ATTORNEY DOCKET NUMBER:	1630-1797PUS1
NAME OF SUBMITTER:	TUYEN LY
SIGNATURE:	/tuyen ly/
DATE SIGNED:	07/24/2019
Total Attachments: 4	
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ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, Wonjae CHANG, Junyong AHN, Hyunho LEE, each individually assign to LG ELECTRONICS INC., a corporation formed under the laws of Republic of Korea, and having a principal place of business at 128, Yeoui-daero, Yeongdeungpo-gu, Seoul 07336, Republic of Korea, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the invention(s) (the "Subject Matter") described in a patent application that names us as inventors, is titled "CHEMICAL VAPOR DEPOSITION EQUIPMENT FOR SOLAR CELL AND DEPOSITION METHOD THEREOF," and was or will be filed in the United States Patent and Trademark Office on 07/23/2019, as application 16/520,014 (the "Application"). We authorize the insertion of the filing date and application number above.

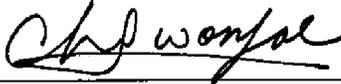
This Assignment assigns, in addition to the Subject Matter of the Application, (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region and under every treaty or convention, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

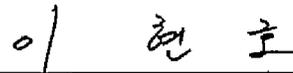
We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or, at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter; will execute and provide all oaths and declarations, statements, testimony, assignments, powers of attorney, applications, and documents;

and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

 _____ Date: July 9, 2019
Wonjae CHANG

Junyong AHN Date: _____

 _____ Date: July 9, 2019
Hyunho LEE

Witnessed by:

Signature: _____ Date: _____

Print Name: _____

Signature: _____ Date: _____

Print Name: _____

The Assignee hereby acknowledges and accepts the foregoing assignment.

Assignee: LG ELECTRONICS INC.

Signature: _____ Date: _____

Name: _____

Title: _____

Doc code: Oath
Document Description: Oath or declaration filed

PTO/AIA/02 (07-13)
Approved for use through 01/31/2014. OMB 0651-0032
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SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)

Title of Invention	CHEMICAL VAPOR DEPOSITION EQUIPMENT FOR SOLAR CELL AND DEPOSITION METHOD THEREOF		
This statement is directed to:			
<input checked="" type="checkbox"/> The attached application,			
OR			
<input type="checkbox"/> United States application or PCT international application number _____ filed on _____.			
LEGAL NAME of inventor to whom this substitute statement applies:			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)			
Junyong AHN			
Residence (except for a deceased or legally incapacitated inventor):			
City	State	Country	KR
Seoul			
Mailing Address (except for a deceased or legally incapacitated inventor):			
IP Center, LG Electronics Inc., 19, Yangjae-daero 11-gil, Seocho-gu			
City	State	Zip	Country
Seoul		06772	KR
I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.			
The above-identified application was made or authorized to be made by me.			
I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.			
Relationship to the inventor to whom this substitute statement applies:			
<input type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only),			
<input checked="" type="checkbox"/> Assignee,			
<input type="checkbox"/> Person to whom the inventor is under an obligation to assign,			
<input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or			
<input type="checkbox"/> Joint Inventor.			

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This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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SUBSTITUTE STATEMENT

Circumstances permitting execution of this substitute statement:

- Inventor is deceased,
- Inventor is under legal incapacity,
- Inventor cannot be found or reached after diligent effort, or
- Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

If there are joint inventors, please check the appropriate box below:

- An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.

OR

- An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

WARNING:

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 card 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 forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

Name: **In Young Lee** Date (Optional): Jul 18, 2019

Signature: *In Young Lee*

APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

If the applicant is a juristic entity, list the applicant name and the title of the signer:

Applicant Name: **LG ELECTRONICS INC.**

Title of Person Executing This Substitute Statement: **Manager**

The signer, whose title is supplied above, is authorized to act on behalf of the applicant.

Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):

City **Seoul** State Country **KR**

Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)

**LG ELECTRONICS INC.
 128, Yeoui-daero, Yeongdeungpo-gu**

City **Seoul** State Zip **07336** Country **KR**

Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.