PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------------|----------------|
| Samsung Electronics Co., Ltd. | 07/11/2011 |

RECEIVING PARTY DATA

| Name: | Samsung Electronics Co., Ltd. | |
|-----------------|--------------------------------|--|
| Street Address: | 416, Maetan-dong, Yeongtong-gu | |
| City: | Suwon-si, Gyeonggi-do | |
| State/Country: | REPUBLIC OF KOREA | |

| Name: | Samsung SDI Co., Ltd. | |
|-----------------|-------------------------------|--|
| Street Address: | 428-5 Gongse-dong, Giheung-gu | |
| City: | Yongin-si, Gyeonggi-do | |
| State/Country: | REPUBLIC OF KOREA | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 11334360 |

CORRESPONDENCE DATA

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NAME OF SUBMITTER: James J. Merrick

Total Attachments: 2

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> **PATENT REEL: 026591 FRAME: 0658**

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ASSIGNMENT

WHEREAS, Samsung Electronics Co., Ltd. a corporation organized and existing under the laws of the Republic of Korea, having a place of business at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea (hereinafter referred to as "ASSIGNOR") is the owner of the entire right, title and interest in the following invention and United States patent application (hereinafter referred to as the "INVENTION" and "APPLICATION," respectively):

SURFACE-MODIFIED SEMICONDUCTOR ELECTRODE, DYE-SENSITIZED SOLAR CELL, METHOD OF MANUFACTURING THE SOLAR CELL, AND POLYMER COMPOSITION USED FOR THE METHOD, filed as U.S. Application Serial Number 11/334,360, filed on January 19, 2006

WHEREAS, Samsung Electronics Co., Ltd., a corporation organized and existing under the laws of the Republic of Korea, having a place of business at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea; and Samsung SDI Co., Ltd., a corporation organized and existing under the laws of the Republic of Korea, having a place of business at 428-5 Gongse-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea (collectively hereinafter referred to as "ASSIGNEES") are desirous of acquiring an interest in any and all countries, in and to the INVENTION, the APPLICATIONS, and any and all Patents to be obtained therefor;

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for good and valuable consideration, the receipt of which is hereby acknowledged, I, the ASSIGNOR, have assigned and transferred, and hereby assigns and transfers unto ASSIGNEES, the entire right, title and interest in and to the INVENTION, the APPLICATIONS, and any and all Patents that may be issued therefrom, in any and all countries, including any and all revivals, refilings, continuations, continuations-in-part, divisions and reissues thereof, to ASSIGNEES; and I do hereby agree that I will execute all papers necessary in connection with any and all patent applications when called upon to do so by ASSIGNEES, their successors or assigns, and that I will, at the cost and expense of

ASSIGNEES, fully assist and cooperate in all matters in connection with any and all patent applications and Patents issuing thereon.

The undersigned declares that all statements made herein of his or her own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the APPLICATION or any Patents issuing therefrom.

| y:s | Samsung iste | ectronics Co. | ., L.T.O. | |
|------|--------------|---------------|-----------|--|
| ame: | Sum | m | | |
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JungMin Lee
Tide: Principal Patent Engineer

Date: __11 July 2011