From: Harness Dickey 703-668-8200 478144 Date: 1/11/2012 5:27:44 PM

Form <b>PTO-1595</b> (Rev. 01-09) ОМВ No. 0661-0027 (exp. 02/28/2009)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office
RECORDATION FORM COVER SHEET PATENTS ONLY	
PAICNIS ONLI	
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.	
1. Name of conveying party(ies):	2. Name and address of receiving party(ies)
Se Yun Kim (01/11/2012), Eun Sung Lee (01/11/2012), Sang Soo Jee (01/11/2012), and Ki Hong Kim (01/11/2012)	Name: Samsung Electronics Co., Ltd. Internal Address:
Additional name(s) of conveying party(les) attached?	Street Address:
3. Nature of conveyance/Execution Date(s):	
Execution Date(s): In parentheses after inventor name	416 Maetan-dong, Yeongtong-gu
X Assignment Merger Change of Name	
Security Agreement Joint Research Agreement	City: Suwon-si, Gyeonggi-do
Government Interest Assignment	State:
Executive Order 9424, Confirmatory License	Country: Republic of Korea Zip:
Other	Additional name(s) & address(es) Yes X No attached?
A. Patent Application No.(s)  13/348,169  Additional numbers attached?	B. Patent No.(s)
Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: John A. Castellano HARNESS, DICKEY & PIERCE, P.L.C. Internal Address: Atty. Dkt.: 15639-000053/US	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Street Address: P.O. Box 8910	Authorized to be charged to deposit account     Enclosed     None required (government interest not affecting title)
City: Reston	8. Payment Information
City: Reston State: VA Zip: 20195	d. Fayment mornadon
Phone Number: (703),668-8029	
Fax Number: (703) 668-8200	Deposit Account Number 08-0750
Email Address: dcmailroom@hdp.com	Authorized User Name John A. Castellano
9. Signature: Signature John A. Castellano - \$5,094	January 11, 2012 Date Total number of pages including cover
Name of Person Signing	sheet, attachments, and documents:

JAC/km

Date: 1/11/2012 5:27:44 PM

Atty. Dkt. No. 15639-000053/US

## **ASSIGNMENT**

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

## CONDUCTIVE PASTE, AND ELECTRONIC DEVICE AND SOLAR CELL INCLUDING AN ELECTRODE FORMED USING THE SAME

for which Assignor is about to make or has made United States or International application for

(a) executed on even date preparatory to filling (each inventor should sign this Assignment on the same day as he/she signs the Declaration and

this Assignment on the same day as he/she signs the Declaration and Power of Attorney);

(b) executed on \_\_\_\_\_\_\_; or

(c) filed on \_\_\_\_\_\_, and assigned Serial No. \_\_\_\_\_ or PCT International Application No. \_\_\_\_\_; and

WHEREAS, Samsung Electronics Co., Ltd., 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, and Industry-Academic Cooperation Foundation, Yonsel University, of Yonsel University, 134, Shinchon-dong, Seodaemoon-gu Seoul 120-749, Republic of Korea, hereinafter referred to as Assignee, is desirous of acquiring all right, title, and interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

The undersigned hereby grant(s) the law firm of Harness, Dickey & Pierce, P.L.C. the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Page 1 of 2

From: Harness Dickey 703-668-8200

To: 95712730140

Page: 5/5

Date: 1/11/2012 5:27:44 PM

Atty. Dkt. No. 15639-000053/US

## **ASSIGNMENT**

Se Yun KIM

2012,01.11

Dated

Eun Sung LEE

2012.01.11

Dated

Sang Soo JEE

2012.01.11

Dated

Ki Hong KIM

2012.01.11

Dated

Page 2 of 2

1351470.1

**RECORDED: 01/11/2012** 

PATENT REEL: 027545 FRAME: 0388