

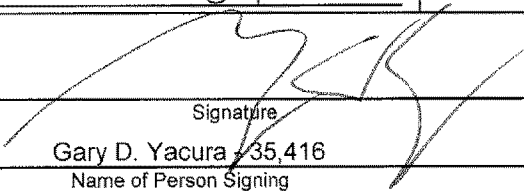
700494750 10/12/2012

Form PTO-1595 (Rev. 03-11)
OMB No. 0651-0027 (exp. 03/31/2012)

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

RECORDATION FORM COVER SHEET PATENTS ONLY

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): Dong Jin Ham (06/18/2012), Bok Soon Kwon (06/18/2012), Hyun Seok Kim (06/18/2012), Joon Seon Jeong (06/18/2012), Hyo Rang Kang (06/18/2012), Jae Sung Lee (06/18/2012), Sueng Hoon Han (06/18/2012), and Gang Hong Bae (06/18/2012) Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2. Name and address of receiving party(ies) Name: <u>Samsung Electronics Co., Ltd.</u> Internal Address: _____ Street Address: _____ 129, Samsung-ro, Yeongtong-gu City: <u>Suwon-si, Gyeonggi-do</u> State: _____ Country: <u>Republic of Korea</u> Zip: <u>443-742</u> Additional name(s) & address(es) attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3. Nature of conveyance/Execution Date(s): Execution Date(s): in parentheses after inventor name <input type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name <input type="checkbox"/> Security Agreement <input type="checkbox"/> Joint Research Agreement <input type="checkbox"/> Government Interest Assignment <input type="checkbox"/> Executive Order 9424, Confirmatory License <input checked="" type="checkbox"/> Other NOR Correction : 1st inventor's name Reel: 028432 Frame: 0409			
4. Application or patent number(s): A. Patent Application No.(s) <u>13/528,236</u> Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> This document is being filed together with a new application. B. Patent No.(s) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Name and address to whom correspondence concerning document should be mailed: Name: <u>Gary D. Yacura</u> <u>HARNESS, DICKEY & PIERCE, P.L.C.</u> Internal Address: <u>Atty. Dkt.: 15639-000079/US</u> Street Address: <u>P.O. Box 8910</u> City: <u>Reston</u> State: <u>VA</u> Zip: <u>20195</u> Phone Number: <u>(703) 668-8000</u> Fax Number: <u>(703) 668-8200</u> Email Address: <u>dcmailroom@hdp.com</u>		6. Total number of applications and patents involved: <u>1</u> 7. Total fee (37 CFR 1.21(h) & 3.41) \$ <u>40.00</u> <input checked="" type="checkbox"/> Authorized to be charged to deposit account <input type="checkbox"/> Enclosed <input type="checkbox"/> None required (government interest not affecting title)	
		8. Payment Information Deposit Account Number <u>08-0750</u> Authorized User Name <u>Gary D. Yacura</u>	
9. Signature: <div style="display: flex; justify-content: space-between;"> <div>  Signature <u>Gary D. Yacura</u> Name of Person Signing </div> <div> <u>October 12, 2012</u> Date </div> </div> Total number of pages including cover sheet, attachments, and documents: <u>7</u>			

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PATENT
REEL: 029132 FRAME: 0941

RECORDATION FORM COVER SHEET (PTO-1595) (supplemental sheet)					
Additional Conveying Party(ies)/Execution Date(s) (1. Continued):					
Additional Assignees (2. Continued): Assignee Name: <u>Postech Academy-Industry Foundation</u> Internal Address: Street Address: <u>San 31, Hyoja-dong, Nam-ku</u> City: <u>Pohang-city, Kyungsangbuk-do</u> State: _____ Country: <u>Republic of Korea</u> Zip: <u>790-784</u>					
 Assignee Name: _____ Internal Address: Street Address: City: _____ State: _____ Country: _____ Zip: _____					
 Assignee Name: _____ Internal Address: Street Address: City: _____ State: _____ Country: _____ Zip: _____					
Additional Applications and/or Patents (4. Continued): <table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 50%; padding: 5px;">Additional Patent Application Numbers 4A. Continued:</th><th style="width: 50%; padding: 5px;">Additional Patent Numbers 4B. Continued:</th></tr></thead><tbody><tr><td style="height: 100px;"></td><td style="height: 100px;"></td></tr></tbody></table> <div style="text-align: right; margin-top: 10px;">Additional numbers attached? <input type="checkbox"/> Yes <input type="checkbox"/> No</div>		Additional Patent Application Numbers 4A. Continued:	Additional Patent Numbers 4B. Continued:		
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Seon Jeong (06/18/2012), Hyo Rang Kang
(06/18/2012), Jae Sung Lee (06/18/2012), Sueng
Hoon Han (06/18/2012), and Gang Hong Bae
(06/18/2012)Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No**2. Name and address of receiving party(ies)**Name: Samsung Electronics Co., Ltd.

Internal Address: _____

Street Address: _____

129, Samsung-ro, Yeongtong-gu

City: Suwon-si, Gyeonggi-do

State: _____

Country: Republic of Korea Zip: 443-742Additional name(s) & address(es) attached? ☒ Yes ☐ No**3. Nature of conveyance/Execution Date(s):**

Execution Date(s): in parentheses after inventor name

☒ Assignment ☐ Merger ☐ Change of Name☐ Security Agreement ☐ Joint Research Agreement☐ Government Interest Assignment☐ Executive Order 9424, Confirmatory License☐ Other _____**4. Application or patent number(s):**

A. Patent Application No.(s)

13/528,236

☐ This document is being filed together with a new application.

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No**5. Name and address to whom correspondence concerning document should be mailed:**Name: Gary D. Yacura
HARNESS, DICKEY & PIERCE, P.L.C.

Internal Address: Atty. Dkt.: 15639-000079/US

Street Address: P.O. Box 8910

City: RestonState: VA Zip: 20195Phone Number: (703) 668-8000Fax Number: (703) 668-8200Email Address: dcmallroom@hdp.com**6. Total number of applications and patents involved:**

1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00☒ Authorized to be charged to deposit account☐ Enclosed☐ None required (government interest not affecting title)**8. Payment Information**Deposit Account Number 08-0750Authorized User Name Gary D. Yacura**9. Signature:**

Signature

Gary D. Yacura - 35,416

Name of Person Signing

June 20, 2012

Date

Total number of pages including cover sheet, attachments, and documents:

8

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Atty. Dkt. No. 15639-000079/US

ASSIGNMENT

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

METAL SUBOXIDE AND METHODS OF PREPARING SAME

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

- (a) ☒ executed on even date preparatory to filing (each inventor should sign 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., 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742, Republic of Korea, and Postech Academy-Industry Foundation, San 31, Hyoja-dong, Nam-ku, Pohang-city, Kyungsangbuk-do, 790-784, 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.

Atty. Dkt. No. 15639-000079/US

ASSIGNMENT

Dong Jin HAM

Dated

Bok Soon KWON

Dated

Hyun Seok KIM


Dated

Joon Seon JEONG

Dated

Hyo Rang KANG

Dated



Jae Sung LEE

2012.06.18

Dated

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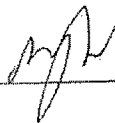
ASSIGNMENT



Sueng Hoon HAN

2012.06.18

Dated



Gang Hong BAE

2012.06.18

Dated

Atty. Dkt. No. 15639-000079/US

ASSIGNMENT

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

METAL SUBOXIDE AND METHODS OF PREPARING SAME

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

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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;

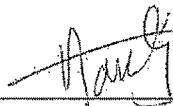
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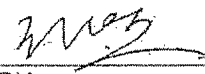
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