

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT																
NATURE OF CONVEYANCE:	ASSIGNMENT																
CONVEYING PARTY DATA																	
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Jinil Lee</td> <td>01/14/2008</td> </tr> <tr> <td>Suk Ho Joo</td> <td>01/16/2008</td> </tr> <tr> <td>Dohyung Kim</td> <td>01/15/2008</td> </tr> <tr> <td>Hyunjun Sim</td> <td>01/23/2008</td> </tr> <tr> <td>Hyeyoung Park</td> <td>01/28/2008</td> </tr> <tr> <td>Sunglae Cho</td> <td>01/15/2008</td> </tr> <tr> <td>Dong-Hyun Im</td> <td>01/14/2008</td> </tr> </tbody> </table>		Name	Execution Date	Jinil Lee	01/14/2008	Suk Ho Joo	01/16/2008	Dohyung Kim	01/15/2008	Hyunjun Sim	01/23/2008	Hyeyoung Park	01/28/2008	Sunglae Cho	01/15/2008	Dong-Hyun Im	01/14/2008
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Sunglae Cho	01/15/2008																
Dong-Hyun Im	01/14/2008																
RECEIVING PARTY DATA																	
Name:	Samsung Electronics Co., Ltd.																
Street Address:	416 Maetan-dong																
Internal Address:	Yeongtong-gu, Suwon-si																
City:	Gyeonggi-do																
State/Country:	REPUBLIC OF KOREA																
PROPERTY NUMBERS Total: 1																	
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12039370</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12039370												
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CORRESPONDENCE DATA																	
Fax Number:	(919)854-1401																
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																	
Phone:	919-854-1400																
Email:	sfreedman@myersbigel.com																
Correspondent Name:	Susan E. Freedman/MBSS																
Address Line 1:	PO BOX 37428																
Address Line 4:	RALEIGH, NORTH CAROLINA 27627																
ATTORNEY DOCKET NUMBER:	5649-2301																

CH \$40.00 12039370

NAME OF SUBMITTER:

Susan E. Freedman

Total Attachments: 8

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ASSIGNMENT

THIS ASSIGNMENT, made by us, **Jinil Lee**, citizen of the Republic of Korea, residing at Satbyeol-maeul Life Apt. 110-1306, Bundang-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea; **Suk Ho Joo**, citizen of the Republic of Korea, residing at Kangdong-gu, Armsadong Sunsa Hyundai Apt. 112-1210, Seoul, Republic of Korea; **Dohyung Kim**, citizen of the Republic of Korea, residing at Satbyeol-maeul Life Apt. 106-1605, Bundang-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea; **Hyunjun Sim**, citizen of the Republic of Korea, residing at Soulbitmaeul Ssangyoung Apt. 453-1603, Bansong-dong, Hwaseung-si, Gyeonggi-do, Republic of Korea; **Hyeyoung Park**, citizen of the Republic of Korea, residing at Ssangyong Apt. 104-503, Taepyeong-dong, Sujeong-gu, Seongnam-si, Gyeonggi-do, Republic of Korea; **Sunglae Cho**, citizen of the Republic of Korea, residing at Byeoksan Apt. 402-1410, Jukjun 2-dong, Yongin-city, Gyeonggi-do, Republic of Korea; and **Dong-Hyun Im**, citizen of the Republic of Korea, residing at 301, #9-22, Yangjae-dong, Seocho-gu, Seoul, Republic of Korea;

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in **METHODS OF FORMING PHASE-CHANGEABLE MEMORY DEVICES USING GROWTH-ENHANCING AND GROWTH-INHIBITING LAYERS FOR PHASE-CHANGEABLE MATERIALS** for which an application for United States Letters Patent has been filed, or is being filed concurrently, in the United States Patent and Trademark Office. We hereby authorize and request Myers Bigel Sibley & Sajovec, P.A., to insert here in parentheses (Application No. 12/039,370, filed 02/28/2008) the filing date and application number of said application when known or to file this Assignment concurrently with the application, and

WHEREAS, **Samsung Electronics Co., Ltd.**, a Korean corporation having a principal place of business at 416 Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee,

ASSIGNMENT – CONTINUED

its successors and assigns, the entire right, title and interest in and to the said invention and application, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to bind our heirs, legal representatives and assigns, promptly to communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns and other legal representatives.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 14 day of Jan, 2008.

Jeepinil (SEAL)
Jinil Lee

Witnessed by:

Date: _____

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 16 day
of Jan, 2008.



Suk Ho Joo (SEAL)

Witnessed by:

Date: _____

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 15 day
of JAN, 2008.



Dohyung Kim (SEAL)

Witnessed by:

Date: _____

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 23 day
of Jan, 2008.



Hyunjun Sim

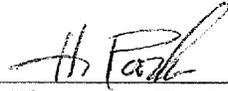
(SEAL)

Witnessed by:

Date: _____

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 29 day
of Jan, 2008.



(SEAL)

Hyeyoung Park

Witnessed by:

Date: _____

ASSIGNMENT – CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 15 day
of Jan, 2008.



(SEAL)

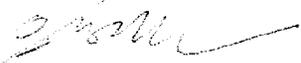
Sunglae Cho

Witnessed by:

Date: _____

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 14 day
of Jan, 2008.



Dong-Hyun Im (SEAL)

Witnessed by:

Date: _____