

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																		
NATURE OF CONVEYANCE:	ASSIGNMENT																		
CONVEYING PARTY DATA																			
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Cheol-Kyu Yang</td> <td>08/06/2012</td> </tr> <tr> <td>Seog-Min Lee</td> <td>08/06/2012</td> </tr> <tr> <td>Chul-Young Jang</td> <td>08/06/2012</td> </tr> <tr> <td>Dong-Min Son</td> <td>08/06/2012</td> </tr> <tr> <td>Byung-Ho Ahn</td> <td>08/06/2012</td> </tr> <tr> <td>Du-Han Jeon</td> <td>08/06/2012</td> </tr> <tr> <td>Yong-Kyu Joo</td> <td>08/06/2012</td> </tr> <tr> <td>Sang-Cheol Ha</td> <td>08/06/2012</td> </tr> </tbody> </table>		Name	Execution Date	Cheol-Kyu Yang	08/06/2012	Seog-Min Lee	08/06/2012	Chul-Young Jang	08/06/2012	Dong-Min Son	08/06/2012	Byung-Ho Ahn	08/06/2012	Du-Han Jeon	08/06/2012	Yong-Kyu Joo	08/06/2012	Sang-Cheol Ha	08/06/2012
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RECEIVING PARTY DATA																			
Name:	Samsung Electronics Co., Ltd.																		
Street Address:	129 Samsung-ro																		
Internal Address:	Yeongtong-gu, Suwon-si																		
City:	Gyeonggi-do																		
State/Country:	KOREA, REPUBLIC OF																		
Postal Code:	443-742																		
PROPERTY NUMBERS Total: 1																			
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13614321</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13614321														
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Application Number:	13614321																		
CORRESPONDENCE DATA																			
Fax Number:	9198541401																		
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																			
Email:	gbailey@myersbigel.com																		
Correspondent Name:	Gwen R. Bailey/MBSS																		
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ATTORNEY DOCKET NUMBER:	5649-3540																		

CH \$40.00 13614321

NAME OF SUBMITTER:

Gwen R. Bailey

Total Attachments: 10

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Attorney Docket No. 5649-3540

ASSIGNMENT

THIS ASSIGNMENT, made by us, **Cheol-Kyu YANG**, citizen of the Republic of Korea, residing at 106-601 Mangpo Maeul Hyundai 1 Cha I-Park Apt., Mangpo-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea; **Seog-Min LEE**, citizen of the Republic of Korea, residing at 106-1502 Dongsuwon LG Village 1 Cha Apt., Mangpo-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea; **Chul-Young JANG**, citizen of the Republic of Korea, residing at 635-401 Naru Maeul World Meridian Apt., Bansong-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; **Dong-Min SON**, citizen of the Republic of Korea, residing at 9-2, 273-16, Hyoseong-dong, Gyeonggi-do, Incheon, Republic of Korea; **Byung-Ho AHN**, citizen of the Republic of Korea, residing at 442-101 Solbit Maeul Ssangyong Yega Apt., Bansong-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; **Du-Han JEON**, citizen of the Republic of Korea, residing at 13-328, San 24, Nongseo-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea; **Yong-Kyu JOO**, citizen of the Republic of Korea, residing at 641-704 Naru Maeul World Meridian Apt., Bansong-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; and **Sang-Cheol HA**, citizen of the Republic of Korea, residing at 107-304 Hyundai Apt., Gokbanjeong-dong, Gwonseon-gu, Suwon-si, Gyeonggi-do, Republic of Korea

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in **BATCH TYPE APPARATUS FOR MANUFACTURING SEMICONDUCTOR DEVICES** 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. 13/614,321, filed 09/13/12) 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 129 Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742 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;

Attorney Docket No. 5649-3540

ASSIGNMENT -- CONTINUED

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, 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.

Attorney Docket No. 5649-3540

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 06 day
of 08, 2012.



Cheol-Kyu YANG (SEAL)

Witnessed by:

Date: _____

Attorney Docket No. 5649-3540

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 06 day
of 08, 2012.

07 S M (SEAL)
Seog-Min LEE

Witnessed by:

Date: _____

Attorney Docket No. 5649-3540

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 06 day
of 08, 2012.



Chul-Young JANG (SEAL)

Witnessed by:

Date: _____

Attorney Docket No. 5649-3540

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 06 day
of 08, 2012.



Dong-Min SON (SEAL)

Witnessed by:

Date: _____

Attorney Docket No. 5649-3540

ASSIGNMENT -- CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 06 day
of 08, 2012.



Byung-Ho AHN (SEAL)

Witnessed by:

Date: _____

Attorney Docket No. 5649-3540

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 06 day
of 08, 2012.



Du-Han JEON (SEAL)

Witnessed by:

Date: _____

Attorney Docket No. 5649-3540

ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 06 day
of 08, 2012.



Yong-Kyu JOO (SEAL)

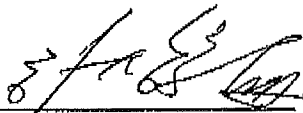
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ASSIGNMENT -- CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 06 day
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Sang-Cheol HA (SEAL)

Witnessed by:

Date: _____