

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>Zhichao Lu</td><td>07/06/2011</td></tr><tr><td>Nadine Collaert</td><td>07/15/2011</td></tr><tr><td>Marc Aoulaiche</td><td>07/15/2011</td></tr><tr><td>Malgorzata Jurczak</td><td>07/15/2011</td></tr></tbody></table>	Name	Execution Date	Zhichao Lu	07/06/2011	Nadine Collaert	07/15/2011	Marc Aoulaiche	07/15/2011	Malgorzata Jurczak	07/15/2011	
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RECEIVING PARTY DATA											
Name:	IMEC										
Street Address:	Kapeldreef 75										
City:	Leuven										
State/Country:	BELGIUM										
Postal Code:	3001										
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>13168102</td></tr></tbody></table>	Property Type	Number	Application Number:	13168102							
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CORRESPONDENCE DATA											
Fax Number: (312)913-0002 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
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ATTORNEY DOCKET NUMBER:	10-797-US										
NAME OF SUBMITTER:	A. Grace Klock										
Total Attachments: 3 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif											

CH \$40.00 13168102

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PATENT
REEL: 026840 FRAME: 0441

ASSIGNMENT

Case No.: 10-797-US

Serial No.: 13/168,102

Inventor(s): Zhichao Lu, Nadine Collaert,
Marc Aoulaiche, and Malgorzata Jurczak

Date of Execution
of Application:

Filing Date: June 24, 2011

In consideration of One Dollar (\$1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assign to:

IMEC
Kapeldreef 75
3001 Leuven, Belgium

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

Methods for Operating a Semiconductor Device

and identified as:

Case No. 10-797-US

in the offices of McDONNELL BOEHNEN HULBERT & BERGHOFF LLP and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorize and request the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrant themselves to be the owners of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrant that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agree, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or

expedient, and for the said considerations the undersigned authorize said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agree, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

Signature:  Date: 07/06/2011
Name: Zhichao Lu

Signature: _____ Date: _____
Name: Nadine Collaert

Signature: _____ Date: _____
Name: Marc Aoulaiche

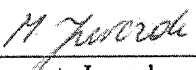
Signature: _____ Date: _____
Name: Malgorzata Jurczak

expedient, and for the said considerations the undersigned authorize said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agree, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

Signature: _____ Date: _____
Name: Zhichao Lu

Signature:  _____ Date: 15/04/2017
Name: Nadine Collaert

Signature:  _____ Date: 15/07/2011
Name: Marc Aoulaiche

Signature:  _____ Date: 15/07/2011
Name: Malgorzata Jurczak