504140296 12/12/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KUEI-HSIUNG CHO	11/30/2016
SHUN-CHAO YANG	11/30/2016
CHING-WEN CHENG	11/30/2016

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	NO. 8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300-78

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15363260

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	252011-6210
NAME OF SUBMITTER:	DANIEL R. MCCLURE
SIGNATURE:	/Daniel R. McClure/
DATE SIGNED:	12/12/2016

Total Attachments: 2

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PATENT 504140296 REEL: 040706 FRAME: 0732

ASSIGNMENT

WHEREAS, Kuei-Hsiung CHO, Shun-Chao YANG, and Ching-Wen CHENG	
hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements a	ıs
described and set forth in the below identified application for United States Letters Patent:	

Title: METHOD FOR CONTROLL	ING TEM	PERATURE	OF	FURNACE	IN
SEMICONDUCTOR FABRICATION PRO	CESS				
Filed: 2016-11-29	Serial No.	15/363,260			
Executed on:	-			Ţ.	

WHEREAS, <u>Taiwan Semiconductor Manufacturing Co., Ltd.</u>, of <u>No. 8, Li-Hsin Rd. 6, Hsinchu Science Park</u>, <u>Hsinchu 300-78</u>, <u>Taiwan R.O.C.</u>, hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in the said invention and application and in any U.S. Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged by Assignor, Assignor has/have sold, assigned and transferred, and by these presents does/do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all his/her/their rights, title and interest in and to the said invention and application and all future improvements thereon, and in and to any Letters Patent which may hereafter be granted on the same in the United States, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignor had this Assignment and transfer not been made, to the full end and term of any Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignor further agrees/agree that he/she/they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the date(s) indicated.

P20160687US00/0503-B31468-US

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PATENT REEL: 040706 FRAME: 0733

ASSIGNMENT

Date	Name: Kuei-Hsiung CHO (Last name: CHO)	
2016/11/20	Shan-chao Yang	
Date	Name: Shun-Chao YANG (Last name: YANG)	

RECORDED: 12/12/2016