PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PO-WEI WANG	04/15/2016
CHUN-LIN CHANG	04/15/2016

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15154986

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

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ATTORNEY DOCKET NUMBER:	T1516.10252US02
NAME OF SUBMITTER:	R. BURNS ISRAELSEN
SIGNATURE:	/R. Burns Israelsen, Reg. No. 42685/
DATE SIGNED:	05/18/2016

Total Attachments: 2

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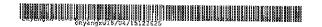
PATENT 503832849 REEL: 038639 FRAME: 0390

NP-17999-US/P20151153US00

ASSIGNMENT

This assignment agreement is applicable to an invention entitled (Invention	ion Title)
HIGH RESISTANCE VIRTUAL ANODE FOR ELECTROPLATING O	
The PATENT RIGHTS referred to in this agreement are:	
(check one) a patent application for this invention, executed by the A	SSIGNOR(S)
concurrently with this assignment.	
U.S. patent application Serial No,filed	
a U.S. patent application based on PCT International App	lication
Nofiled on (date)(U.S.	patent application
Serial No, if known).	
U.S. patent No, issued	
The PATENT RIGHTS also include all divisions, reissues, continuations	s and extensions of
the patents and patent applications identified above.	
The PATENT RIGHTS assigned under this agreement are:	
(check one) \(\subseteq U.S.\) patent rights only.	
☐Worldwide patent rights. In this case, the assignee shall have	ave the right to
claim the benefit of the filing date of any U.S. or foreign r	patent application
for this invention.	
The ASSIGNOR(S) referred to in this agreement is (or are) the inventor(s) whose signatures
appear on page 2 of this Assignment and any Supplemental Sheet(s).	
The ASSIGNEE referred to in this agreement is:	
(Name of Assignee) TAIWAN SEMICONDUCTOR MANUFACTURIN	
(Address) NO.8, LI-HSIN RD.6, SCIENCE-BASED INDUSTRIAL PAR	RK, HSINCHU,
TAIWAN 300, R.O.C.	
The ASSIGNEE is:	
(check one) An individual.	
☐A Partnership.	
⊠A Corporation of	country)
(other)	
TI ACOMONODIO	
The ASSIGNOR(S), in consideration of \$10.00 paid by the ASSIGNEE,	
valuable consideration, receipt of which is acknowledged, hereby assign(s) the following
rights to the ASSIGNEE, its successors and assigns:	
the full and exclusive right to the invention;	
the entire right, title and interest in and to the PATENT RIGHTS;	
the right to sue and recover for any past infringement; and	
the right to claim priority under 35 USC 119, 35 USC 120, or any other a	pplicable
provisions, based on any earlier patent applications for this invention.	

PATENT REEL: 038639 FRAME: 0391



THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO ASSIGNEE: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. INVENTION TITLE: HIGH RESISTANCE VIRTUAL ANODE FOR ELECTROPLATING CELL

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademark to issue all Letters Patent to the ASSIGNEE as the assignee of the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE, or its representatives, any fact known to the ASSIGNOR(S) with respect to said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause and all Letter Patent to be issued to said ASSIGNEE, make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

The ASSIGNOR(S) authorize(s) the attorneys and agents who have the power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this document after it has been, executed.

Po-Wei WANG

Name of sole or first inventor

Max Bula 1 4/15, 20/6.

Signature Date

Mindin Chang Alk, 20/6

Signature Date

Chun-Lin CHANG

RECORDED: 05/18/2016

Name of second inventor, if any

PATENT REEL: 038639 FRAME: 0392