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			Patent and Trade	emark Offic
To the Honorable Commissione	er of Pa 10200	5083	ached original documents or copy t	thereof.
Name of conveying party(ies	5):	2 N	lame and address of receiving part	ty(ies):
Su-Yu Yeh Chi-Bing Chen Cheng-Yi Huang Chao-Jie Tsai Lu-Chang Chen Hsing-Jui Lee	02/22/0.	No Sc	aiwan Semiconductor Manufacturing lo. 121 Park Avenue 3 cience-Based Industrial Park Isin-Chu, Taiwan, R.O.C.	Co. Ltd.
3 Nature of conveyance: ■ Assignment	☐ Merger	Ad	dditional name(s) & address(es) attached □ Y	′es ⊠ No
☐ Security Agreement	Change of Name			
☐ Other: Execution Date: <u>Decembe</u>	er 11, 2001			
4 Application number(s) or pa	tent number(s):			
If this document is being file	d together with a new applica	tion, the exe	ecution date of the application is: 12-11-01	
A. Patent Application No(s).		В.	. Patent No(s)	
5 Name and address of party	Additional numbers		□ Yes ☒ No otal number of applications and patents involv 1	red:
concerning document should	u pe maneu.	7 To	otal fee (37 CFR 3.41) \$4	10.00
RANDY W. TUNG Tung & Associates				
838 W. Long Lake Road Suite 120	18302	⊠	Authorized to charge credit card (w.	/filing fee
Bloomfield Hills, Michigan 4	1	8 De	peposit Account Number:	
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9 Statement and signature.	re and helief the foregoing in	formation is	true and correct and any attached copy is a t	rue copy
the original document.	ge and belief, including	ر v	February 22, 20	
Randy W. Tung Name of Person Signing	Signature			
Registration No. 31,311	Total	number of pa	ages including cover sheet, attachments, and documents	nent <u>: 3</u>
Mail	documents to be recorded Commissioner of Patent	with require	red cover sheet information to: parks. Box Assignments	

67,200-656

PATENT REEL: 012628 FRAME: 0981

ASSIGNMENT

WHEREAS, we, SU-YUYEH, CHI-BING CHEN, CHENG-YIHUANG, CHAO-JIE

TSAI, LU-CHANG CHEN and HSING-JUI LEE, have invented certain improvements in

METHOD REDUCING THE EFFECTS OF N2 GAS CONTAMINATION

IN AN ION IMPLANTER

for which we are about to make application for Letters Patent of the United States; and

WHEREAS, TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. of

No. 121, Park Avenue 3, Science-Based Industrial Park, Hsin-Chu, Taiwan, R.O.C, is desirous of

acquiring the entire right, title and interest in and to said invention;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and

valuable consideration, the receipt of which is hereby acknowledged, we, SU-YU YEH, CHI-BING

CHEN, CHENG-YIHUANG, CHAO-JIE TSAI, LU-CHANG CHEN and HSING-JUI LEE, by these

presents, do hereby sell, assign and transfer unto the said corporation and its assigns, for the territory

of the United States of America and all foreign countries, the entire right, title and interest, including

all priority rights under the International Convention associated with each country of the Union, in

and to said invention as described in the patent application executed by us on the 11th, 12th, 13th day

of <u>December</u>, 2001, preparatory to obtaining Letters Patent of the United States thereon, and

in and to said application and any Letters Patent that may be granted in pursuance of said application

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PATENT REEL: 012628 FRAME: 0982 and any divisional, continuation or continuation-in-part application thereof, and in and to any reissue of any such patent, and in and to any patent applications which may be filed on said invention in countries foreign to the United States and any Letters Patent granted thereon.

We further authorize said corporation to apply for foreign patents on said invention in its own name or through its designees, including subsidiaries, related companies or assignees, under the International Convention or otherwise, and we further agree to execute all papers, including those required for the United States and foreign applications, and to perform such other proper acts as said corporation or its designees the rights herein assigned.

SILVILVEH Chi - Brig Chen
CHI-BING CHEN

Cheng-Yi Huang Chao-Jie Trai

CHAO-JIE TSAI

Lu-chang Chen Hsing-Jui Lee Hsing-Jui Lee

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RECORDED: 02/22/2002