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DOCKET NO. 4006-272	103141486 U.S. DEPARTMENT OF COMME Patent and Trademark C
	ademarks: Please record the attached original documents or copy thereto:
Name of conveying party(ies):	Name and address of receiving party(ies):
1. Jiun-Rong PAI 2. Y.H. LO 3. H.C. WU	Name: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. Street Address: No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park
3. Nature of conveyance: ☐ Assignment ☐ Merger	City: Hsin-Chu State: Taiwan Zip: 300 Country: R.O.C.
Other Correction of Assignee's name recorded at Reel 014645, Frame 0373 Execution Date: September 29, 2003	Name Additional name(s) & address(es) attached? □ Yes ☒ No
4. Application number(s) or patent number(s): If the document is being filed together with a new appl A. Patent Application No(s). 10/694,355 filed October 28, 2003	B. Patent No(s).
Additional	numbers attached? ☐ Yes ☒ No
 Name and address of party to whom correspondence concerning document should be mailed: Name: LOWE HAUPTMAN & BERNER, LLP Internal Address: 	7. Total fee (37 CFR 3.41) \$40.00 Enclosed
Street Address: 1700 Diagonal Road, Suite 300 City: Alexandria State: VA Zip: 22314	8. Deposit account number: 07-1337
DO	O NOT USE THIS SPACE
9. Signature. 6/2005 MBEYENE2 00000247 10694355 C:8021 Benjamin J. Hauptman, 29,310 Name of Person, Registration No.	December 15, 2005 Signature Date

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U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

	13 ONLI		
To the Honorable Commissioner of Patents and Trademarks:	Please record the attached original documents or copy thereto:		
Name of conveying party(les):	2. Name and address of receiving party(ies):		
1. Jiun-Rong PAI	Name: TAIWAN SEMICONDUCTOR MANUFACTURING CO.,		
2. Y.H. LO 3. H.C. WU	Street Address: No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park		
	City: Hsin-Chu		
3. Nature of conveyance:	State: Taiwan		
☑ Assignment ☐ Merger	Zip: 300 ⊃ X 8		
	Country: R.O.C.		
☐ Security Agreement ☐ Change of Name	10		
□ Other			
Execution Date: September 29, 2003	Additional name(s) & address(es) attached? ☐ Yes ☑ No		
4. Application number(s) or patent number(s): ///494	355		
If the document is being filed together with a new application, th	e execution date of the application is: September 29, 2003		
A. Patent Application No(s).	B. Patent No(s).		
Additional numbers attached? Yes No			
5. Name and address of party to whom correspondence	6. Total number of applications and patents involved: one		
concerning document should be mailed:	7. Total fee (37 CFR 3.41).\$40.00		
Name: LOWE HAUPTMAN GILMAN & BERNER	☐ Enclosed		
	☐ Authorized to be charged to deposit account ☐ Credit Card payment form enclosed		
Internal Address:			
Street Address: 1700 Diagonal Road, Suite 300	8. Deposit account number: 07-1337		
City: Alexandria State: VA Zip: 22314	V		
DO NOTUSE THIS SPACE			
9. Signature.			
//			
Benjamin J. Hauptman, 29,310	October 28, 2003		
Name of Person, Registration No.	Signature Date		
V			
Total number of pages including cover sheet, attachment, and document:	3		
CMB No. 0851-0011 (exp. 4/94)			

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ASSIGNMENT

APPARATUS FOR MONITORING LEAKAGE OF PROCESS COOLING WATER IN
FURNACE The PATENT RIGHTS referred to in this agreement are:
(check one)∑a patent application for this invention, executed by the ASSIGNOR(S)
concurrently with this assignment.
U.S. patent application Serial No,filed
☐ a U.S. patent application based on PCT International Application
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 and extensions of
the patents and patent applications identified above.
The PATENT RIGHTS assigned under this agreement are:
(check one)⊠U.S. patent rights only.
Worldwide patent rights. In this case, the assignee shall have the right to
claim the benefit of the filing date of any U.S. or foreign 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 MANUFACTURING CO., LTD.
(Address) NO. 8, LI-HSIN RD. 6, SCIENCE-BASED INDUSTRIAL PARK, HSIN-CHU,
TAIWAN 300, R.O.C.
The ASSIGNEE is:
(check one) An individual.
☐A Partnership.
A Corporation of <u>TAIWAN, R.O.C.</u> (specify state or country)
(other)
The ASSIGNOR(S), in consideration of \$10.00 paid by the ASSIGNEE, and other good and
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 applicable
provisions, based on any earlier patent applications for this invention.

THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO ASSIGNEE: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. INVENTION TITLE: APPARATUS FOR MONITORING LEAKAGE OF PROCESS COOLING WATER IN FURNA.CE

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.

Jiun-Rong PAI	im - Long Pan	9129/203
Name of sole or first inventor	Signature	Date
Y.H. LO	Y. H. Lo	9/29/2003
Name of second inventor, if any	Signature	Date
H.C. WU	H.C.Wu	9/29 (z 00 3
Name of third inventor, if any	Signature	Date
Name of fourth inventor, if any Name of fifth inventor, if any	Signature Signature	Date
Name of sixth inventor, if any	Signature	Date
Name of seventh inventor, if any	Signature	Date
Name of eighth inventor, if any	Signature	Date

RECORDED: 12/15/2005