07-01-	-2002
PTO-1595 RE	
To the Honorable Commissioner of Patents and Trademarks:	lease record the anached original documents or copy thereof.
1 Name of conveying party(ies): 6 - 20 - 02 Shing-Chyang Pan Yu-Chun Huang Jeng Shwangming	Name and address of receiving party(ies): Taiwan Semiconductor Manufacturing Co. Ltd. No. 121 Park Avenue 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C.
3 Nature of conveyance: ■ Assignment □ Merger □ Security Agreement □ Change of Name □ Other: Execution Date: May 8, 2002	Additional name(s) & address(es) attached □ Yes ⊠ No
If this document is being filed together with a new application A. Patent Application No(s).	on, the execution date of the application is: 05-08-02 B. Patent No(s)
5 Name and address of party to whom correspondence concerning document should be mailed:	6 Total number of applications and patents involved:
RANDY W. TUNG Tung & Associates 838 W. Long Lake Road Suite 120 Bloomfield Hills, Michigan 48302 2002 VYANG1 00000005 10175613 581 40.00 OP	7 Total fee (37 CFR 3.41) \$40.00 ■ Enclosed ■ Authorized to charge credit card (w/filing fee) 8 Deposit Account Number: 50-0484 (Attach duplicate copy of this page if paying by deposit account)
DO NOT US	E THIS SPACE
9 Statement and signature. To the best of my knowledge and belief, the foregoing informative original document. Randy W. Tung Name of Person Signing Registration No. 31,311 Signature	mation is true and correct and any attached copy is a true copy of June 20, 2002 Date
Mail documents to be recorded with	h required cover sheet information to: Trademarks Box Assignments

Washington, D.C. 20231

ASSIGNMENT

WHEREAS, we, SHING-CHYANG PAN, YU-CHUN HUANG and

SHWANGMING JENG, have invented certain improvements in:

METHOD OF AVOIDING PLASMA ARCING DURING RIE ETCHING

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, SHING-CHYANG PAN,

YU-CHUN HUANG and SHWANGMING JENG, 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 $\frac{8 + 1}{2}$ day of $\frac{Mc}{2}$, 2002,

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 and any divisional,

continuation or continuation-in-part application thereof, and in and to any reissue of any such patent,

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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.

Shing-Chyang Pan

SHING-CHYANG PAN

Yu-Chun Huang YU-CHUN HUANG

Jeng Shingmild SHWANGMING JENG

TUNG & ASSOCIATES 838 W. Long Lake Road Suite 120 Bloomfield Hills, Michigan 48302

RECORDED: 06/20/2002

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