

PTO-1595

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10-07-2003



HEET U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks 102568660 attached original documents or copy thereof.

1 Name of conveying party(ies): 9.26.03

Chih-Ta Wu
Kuo-Yin Lin
Chia-Shiung Tsai

3 Nature of conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other:
 Execution Date: August 6, 2003

2 Name and address of receiving party(ies):

Taiwan Semiconductor Manufacturing Co. Ltd.
No. 6. Li-Hsin Rd. 6
Science-Based Industrial Park
Hsin-Chu, Taiwan, R.O.C.

Additional name(s) & address(es) attached Yes No

22278 U.S. PTO
10/6/2778
09/26/03

4 Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 08-06-03

A. Patent Application No(s). 10672778 B. Patent No(s)

Additional numbers attached? Yes No

5 Name and address of party to whom correspondence concerning document should be mailed:

RANDY W. TUNG
Tung & Associates
838 W. Long Lake Road
Suite 120
Bloomfield Hills, Michigan 48302

6 Total number of applications and patents involved: 1

7 Total fee (37 CFR 3.41) **\$40.00**

Enclosed
 Authorized to charge credit card (w/filing fee)

8 Deposit Account Number: 50-0484
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9 Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Randy W. Tung [Signature] Sept. 26, 2003
 Name of Person Signing Signature Date
 Registration No. 31,311

Total number of pages including cover sheet, attachments, and document: 3

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

67,200-940

10/02/2003 YPOLITE1 00000030 10672778

04 FC:8021 40.00 DP

PATENT
REEL: 014550 FRAME: 0984

ASSIGNMENT

WHEREAS, we, CHI-TA WU, KUO YIN LIN and CHIA-SHIUNG TSAI, have
invented certain improvements in

ATOMIC LAYER DEPOSITION (ALD) METHOD

WITH ENHANCED DEPOSITION RATE

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, CHI-TA WU, KUO YIN
LIN and CHIA-SHIUNG TSAI, 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 6th day of August, 2003, 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

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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.

Chiuh-Ta Wu 8/6/2003
CHIH-TA WU

Kuo-yin Lin 8/6/2003
KUO-YIN LIN

Chia Shiung Tsai
CHIA-SHIUNG TSAI

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