

07-02-2001

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

1 Name of conveying party(ies):

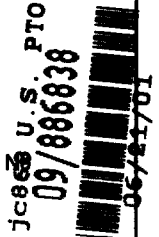
06/21/01

Jim-Jey Huang
Jui-Ping Chuang
Tain-Chen Hu

2 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 10, 2001Additional name(s) & address(es) attached ☐ Yes ☒ No

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: 05-10-01

A. Patent Application No(s).

09/886838

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 be charged to deposit account

8 Deposit Account Number:

50-0484

(Attach duplicate copy of this page if paying by deposit account)

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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
Name of Person Signing
Registration No. 31,311

Signature

June 21, 2001

Date

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

67,200-400

PATENT
REEL: 011929 FRAME: 0484

ASSIGNMENT

WHEREAS, we, JIM-JEY HUANG, TAIN-CHEN HU, JUI-PING CHUANG have
invented certain improvements in

Method And Apparatus For Determining End-Point
In A Chamber Cleaning Process

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

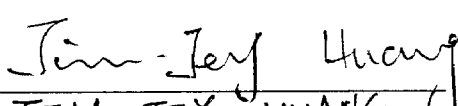
WHEREAS, TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. of
No. 121, Park Avenue 3, Science-Based Industrial Park, Hsin-Chu, Taiwan, R.O.C, is desirous of
acquiring the entire right, title and interest in and to said invention;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and
valuable consideration, the receipt of which is hereby acknowledged, we, JIM-JEY HUANG, TAIN-CHEN HU,
JUI-PING CHUANG, 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 10th day of May, 2001, preparatory to
obtaining Letters Patent of the United States thereon, and in and to said application and any Letters

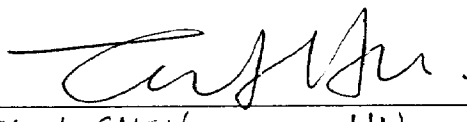
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Patent that may be granted in pursuance of said application and any divisional, continuation or continuation-in-part application thereof, and in and to any reissue of any such patent, and in and to any patent applications which may be filed on said 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.


JIM-JEY HUANG.


JUI-PING CHUANG.


TAIN-CHEN HU

TUNG & ASSOCIATES
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