

Office



TS00-718

102405615

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

11002 U.S. PTO
10/392119
03/19/03

1. Name of conveying party(ies):

HUNG-HSIN LIU, KWANG-CHEN WU,
HOW-CHENG TSAI, YUAN-KO HWANG,
SHIH-SHUN CHEN

03/19/03

Additional name(s) or conveying party(ies) attached: Yes No

2. Name and address of receiving party(ies):

Name: Taiwan Semiconductor Manufacturing Company

Internal Address:

Street Address:

121 Park Ave. 3
Science-Based Industrial Park
City: Hsin-Chu Zip:
Country: Taiwan, R.O.C.

3. Nature of conveyance

- Assignment Merger
- Security Agreement Change of Name
- other _____

Execution Date: 12/5/02

Additional 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: 12/5/02

A. Patent Application No(s)

B. Patent No.(s)

Additional numbers attached? Yes No

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

Name: GEORGE O. SAILE
Internal Address: _____

Street Address: 28 DAVIS AVENUE

City: POUGHKEEPSIE State: NY ZIP: 12603

6. Total no. of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 40.00

- Enclosed
- Authorized to be charged to deposit acct.

8. Deposit account number: 19-0033
(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

STEPHEN B. ACKERMAN
Name of Person Signing

Signature

3/19/03
Date

For U.S. and/or Foreign Rights

For Application or U.S. Patent

By Inventor(s) or Present Owner

ASSIGNMENT OF INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00) the receipt of which is hereby acknowledged, and for other good and valuable consideration,

ASSIGNOR:

HUNG-HSIN LIU
Type or print name of ASSIGNOR
No 12-5, Alley 6, Lane 485
Address
Sec 1, Guangfu Rd, Hsinchu.
Taiwan, ROC, Republic of China
Nationality

KWANG-CHEN WU
Type or print name of ASSIGNOR
No 1, Alley 1, Lane 84, Fude St.
Address
Shinyi Chin, Taipei, Taiwan
R.O.C, Republic of China, Taiwan
Nationality

HOW-CHENG TSAI
Type or print name of ASSIGNOR
No. 48, Lane 181, Heping Rd.
Address
Taoyuan City, Taiwan
Republic of China, Taiwan
Nationality

YUAN-KO HWANG
Type or print name of ASSIGNOR
#50, Fuyuan RD, Fuyuan Village.
Address
Hualien, Taiwan
R.O.C, Republic of China, Taiwan
Nationality

ASSIGNEE

Taiwan Semiconductor Manufacturing Co. Ltd.
121 Park Ave. 3
Science-Based Industrial Park
Hsin-Chu, Taiwan, R.O.C.
Taiwan, R.O.C.
Nationality

and the successors, assigns and legal representatives of the ASSIGNEE

(complete one of the following)

- the entire right, title and interest
- an undivided _____ percent (____%) interest for the United States and its territorial possessions
(check the following box if foreign rights are also to be assigned)
- and in all foreign countries

in and to any and all improvements which are disclosed in the invention entitled:

A Method Of Forming Titanium Nitride Spacer For Flash EPROM By Using Dry+Wet Etching Technology

TS00-718

For U.S. and/or Foreign Rights

For Application or U.S. Patent

By Inventor(s) or Present Owner

ASSIGNMENT OF INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00) the receipt of which is hereby acknowledged, and for other good and valuable consideration,

ASSIGNOR:

SHIH-SHUN CHEN
Type or print name of ASSIGNOR

No. 9, Lane 5, Alley 411, Sec. 4
Address

Chung-Hwa Rd., Hsin-chu, Taiwan

R.O.C. Republic of China, Taiwan
Nationality

ASSIGNEE

Taiwan Semiconductor Manufacturing Co. Ltd.
121 Park Ave. 3
Science-Based Industrial Park
Hsin-Chu, Taiwan, R.O.C.
Taiwan, R.O.C.
Nationality

and the successors, assigns and legal representatives of the ASSIGNEE

(complete one of the following)

- the entire right, title and interest
- an undivided _____ percent (____%) interest for the United States and its territorial possessions
(check the following box if foreign rights are also to be assigned)
- and in all foreign countries

in and to any and all improvements which are disclosed in the invention entitled:

A Method Of Forming Titanium Silicon Nitride Spacer For Flash EEPROM By Using Dry+Wet Etching Technology

and which is found in:

- (a) U.S. patent application executed on even date herewith
- (b) U.S. patent application executed on _____
- (c) U.S. application serial no. _____ filed on _____
- (d) U.S. patent no. _____ issued _____
(also check (e) if foreign application(s) is also being assigned)
- (e) and any legal equivalents thereof in a foreign country, including the right to claim priority

and in and to all Letters Patent to be obtained for said invention by the above application or any continuation, division, renewal or substitute thereof, and as to letters patent any re-issue or re-examination thereof.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will, testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, I have signed this _____ (Date of signing)

WARNING: Date of signing must be the same as the date of execution of the application if item (a) was checked above.

Hung-Hsin Liu

 SIGNATURE OF ASSIGNOR(S)

Kwang-Chen Wu

Hong-Ching Tsai

Yuanho Hwang 12/5 2002
Shih-shing Chen

If ASSIGNOR is a legal entity, complete the following information:

Type or print the name of the above person authorized to sign on behalf of ASSIGNOR.

Title

Note: No witnessing, notarization or legalization is necessary, if the assignment is notarized or legalized, then it will only be prima facie evidence (35 USC 261). Use next page if notarization is required.

Notarization or Legalization Page Added.

and which is found in

- (a) U.S. patent application executed on even date herewith
- (b) U.S. patent application executed on _____
- (c) U.S. application serial no. _____ filed on _____
- (d) U.S. patent no. _____ issued _____
(also check (e) if foreign application(s) is also being assigned)
- (e) and any legal equivalent thereof in a foreign country, including the right to claim priority

and in and to all Letters Patent to be obtained for said invention by the above application or any continuation, division, renewal or substitute thereof, and as to letters patent any re-issue or re-examination thereof.

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IN WITNESS WHEREOF, we have signed this _____ (Date of signing)

WARNING: Date of signing must be the same as the date of execution of the application if item (a) was checked above.

Shih-shiang Chen
Signature of ASSIGNOR(S)

If ASSIGNOR is a legal entity, complete the following information

Type or print the name of the above person authorized to sign on behalf of ASSIGNOR

Title

Note: No witnessing, notarial or legalization is necessary, if the assignment is notarized or legalized then it will only be prima facie evidence (35 USC 261). Use next page if notarial is required.

____ Notarization (if legalization Page Added)