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JIAW-REN SHIH, SHUI-HUNG CHEN AND JIAN-HSING LEE

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: 7/3/99

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

09358986

If this document is being filed together with a new application, the execution date of the application is: 7/3/99

A. Patent Application No(s)

B. Patent No.(s)

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

Name: GEORGE O. SAILE

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City: POUGHKEEPSIE State: NY ZIP: 12603

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

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

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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:

JIAW-REN SHIH
Type or print name of ASSIGNOR

6F, No. 128, Lane 89, Sec. 1
Address Kuang-Fu Rd.
Hsin-Chu, Taiwan

R.O.C.
Nationality

SHUI-HUNG CHEN
Type or print name of ASSIGNOR

No. 36, Lane 228, Wu-Lin Rd.
Address Hsin-Chu, Taiwan

R.O.C.
Nationality

JIAN-HSING LEE
Type or print name of ASSIGNOR

322, Ta-Tung Rd.
Address Chia-I County, Taiwan

R.O.C.
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
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in and to any and all improvements which are disclosed in the invention entitled:

Method For Manufacturing Short-Channel, Metal-Gate CMOS Devices With Superior Hot Carrier Performance

and which is found in

- (a) U.S. patent application executed on even date herewith
- (b) U.S. patent application executed on _____
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IN WITNESS WHEREOF, I / We have signed this
Jau-Pen Shieh 7/2/99 (Date of signing)

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Jau-Pen Shieh
Signature of ASSIGNOR(S)

Shui-Fung Chen

Jian-Hsing Lee

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 desired.

___Notarization of Legalization Page Added.