÷ ORM P° 0~1595	RFG	01-29	9-1999	T US DEPT OF COMMERCE Patient and Trademark Office
TS98-407 To the Honorable Commissione	r of Patents and	1009	52737	Jocuments or copy thereof
Name of conveying party(ie	·s)	NRO	2. Name and address	of receiving party(ies)
CHEN-HUA YU, SYUN-MI WENG CHANG AND YAO-		-19-99	Name: <u>Taiwan Se</u> <u>Company</u>	miconductor Manufacturing
a litional name(s) or conveying part	y(ies) attached?	Yes X No	Interral Address Street Address:	9/23405.
X Nations of conveyance X Assignment Security Agreement	Merger Change of Name		121 Park Ave. 3 Science-Based Inc City: Hsin-Chu Country: Taiwan	Zip:
Application number(s) or pa			Additional name(s) & a	address(es) attached Yes X No
It his document is being file <u>A</u> <u>Patent Application Not</u>			B. Patent	••
Name and address of party concerning document should	to whom correspond be mailed			tions and patents involved
Name <u>GEORGE O. S.</u> Interna: Address:			7. Total fee (37 CFR	3.41): \$ <u>40.00</u>
			Enclosed	
Street Address <u>20 MCIN</u>	ITOSH DRIVE		X Authorized to	o be charged to deposit acct
Com POUGHKEEPSIE	State: NY_ZIP-12	<u>2603</u>	8 . Deposit account nu (Attach duplicate copy of	imber: <u>19-0033</u> /
01/28/1999 JSHABAZZ 00000057 190033 09 01 FC:581 40.00 CH)234059 DO		TS SPACE	
9 Statement and signature. To the best of my knowledg of the original document		egoing informa	tion is true and correct	and any attached copy is a true copy
<u>GEORGE O. SA</u> Name of Person Si		<u>j</u> ż	orge C. Saile Signature	January 13, 1999 Date
			[∵] otal number of page	s comprising cover sheet:

PATENT REEL: 9717 FRAME: 0928



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:

Tel - HEA TACCA	SYUN-MING JANG
Type or print name of ASSIGNOR	Type or print name of ASSIGNOR
Address - Jan The are	Address Hisin-Chu, Truivan
$\frac{1}{Nationality}$	Republic of China Nationality
Type or print name of ASSIGNOR	Type or print name of ASSIGNOR
Address 16-3, Lang 42.	Accress NE25, SELL EVSHILLE LI
Republic of Clina	Republic of Chinas

ASSIGNEE:

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

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 icheck the following box/f 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:

<u>A Method Of Optimizing Device Performance Via Use Of Copper Damascene Structures, And</u> HSQ/FSG, Hybrid Low Dielectric Constant Materials

PATENT REEL: 9717 FRAME: 0929 and which is found in

(a	X	U.S. patent application executed on even of	late 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 for	eign application(s) is also being assigned	
(e		and any legal equivalent thereof in a foreig	n country including the right to clam 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. It igation 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 acplication, 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 / 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.

If ASS/GNOR is a legal entity complete the following information

Type or print the name of the above person (atthetized to sig a smalled) ASSIGNOR

Title

5.8c: No witnessing, notarization or legalization is necessary of the is agriment is notarized or legalized then it will only be pointedate evidence (35). Esc

. The Use next page if notarization is desire it

__Notarization of Legalization Page Added

PATENT REEL: 9717 FRAME: 0930

RECORDED: 01/19/1999