FORM PTO~1595	4-2003 SHEET U.S. DEPT. OF COMMERCE Patent and Trademark
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$\frac{\text{TS02-338}}{\text{To the Userable Operation (Pst)}} \qquad 1023$	356244
To the Honorable Commissioner of Pate 1. Name of conveying party(ies):	2. Name and address of receiving party(ies):
er came or conveying party (coo).	The second secon
JING-CHENG LIN, CHENG-LIN HUANG, CHING-HUA HSIEH, SHAU-LIN SHUE, MONG-SONG LIANG	Name: Taiwan Semiconductor Manufacturing Company Internal Address:
Additional name(s) or conveying party(ies) attached?	X No Street Address:
3. Nature of conveyance	121 Park Ave. 3
X Assignment Merger Security Agreement Change of Name	Science-Based Industrial Park City: Hsin-Chu Zip: Country: Taiwan, R.O.C.
other	
Execution Date: <u>9/25/02</u>	Additional name(s) & address(es) attached? Yes X
4. Application number(s) or patent number(s):	
Additional numbers a	attached? Yes X No
5. Name and address of party to whom correspondence	6. Total no. of applications and patents involved:: 1
concerning document should be mailed: Name: GEORGE O. SAILE	
Internal Address:	7. Total fee (37 CFR 3.41): \$ 40.00
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Street Address: 28 DAVIS AVENUE	X Authorized to be charged to deposit acct.
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9. Statement and signature. To the best of my knowledge and belief the foregoing ir of the original document STEPHEN B. ACKERMAN	nformation is true and correct and any attached copy is a true cop
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TS02-338	For X Application or U.S. Patent
	By X Inventor(s) or Present Owner
ASSIGNMENT	OF INVENTION
In consideration of the payment by ASSIGNE receipt of which is hereby acknowledged, and	E to ASSIGNOR of the sum of One Dollar (\$1.00), the l for other good and valuable consideration,
ASSIGNOR:	
TING-CHENG LIN	CHEN-LIN HUANG Type or print name of ASSIGNOR
TING-CHENG LIN Type or print name of ASSIGNOR NO. 6>1, PEI-HS/N RD., CHU TING Address	37. No. 309. Long Chiang Road. Address
ZHEN, ASINCHU COUNTRY, TAMAN	
	Republic of ching Town
CHING-HUA HSIEH Type or print name of ASSIGNOR	SHAU-LINH SHUE Type or print name of ASSIGNOR
3 FL No. 16 Alley 7 Lane 384, Sec. 1,	5F, No. 25, Alley 6, Lane 485,
Address Chunghua Rd., Hsinchu, Taivan Buc, R.O.C.	Address Lwang-Fu Rd. I, Hsindhu, Taiwan 300, R.O. C
Republic of china Tallean	Republic of China Taiwan
	(Nationality)
ASSIGNEE: Taiwan Semiconductor Manufacturing Co 121 Park Ave. 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C. Taiwan, R.O.C. Nationality	. Ltd.
and the successors, assigns and legal represe	entatives of the ASSIGNEE
	one of the following)
x the entire right, title and interest	manuscript for the United City and it to mit will a second it.
	nterest for the United States and its territorial possessions n rights are also to be assigned)
n and to any and all improvements which are	disclosed in the invention entitled:
Improved Method Of Parrior Lead Integration	on With Conner Alley

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T000 000	For x U.S. and/or x Foreign Rights
TS02-338	For X Application or U.S. Patent
	By X Inventor(s) or Present Owner
ASSIGNMENT	OF INVENTION
In consideration of the payment by ASSIGNEI receipt of which is hereby acknowledged, and	E to ASSIGNOR of the sum of One Dollar (\$1.00), the for other good and valuable consideration,
ASSIGNOR:	
MONG-SONG LIANG Type or print name of ASSIGNOR 2 F. NO. / 2 . Bomboo Village 7 RV, Address, Address, Address, Assa-Chu. Taiwan Pagublie of Chira Jai Nationality	an Car
ASSIGNEE: Taiwan Semiconductor Manufacturing Co 121 Park Ave. 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C. Taiwan, R.O.C.	o. Ltd.
and the successors, assigns and legal repres	
· ·	one of the following)
	interest for the United States and its territorial possessions in rights are also to be assigned)
in and to any and all improvements which are	disclosed in the invention entitled:

Improved Method Of Barrier-Less Integration With Copper Alloy

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(b)	o.o. paterit application excedited on	
(0)	I I S application serial no	filed on
(4)	 	
(d)	(also check	issued (e) if foreign application(s) is also being assigned)
(e)		a foreign country, including the right to clam priority
	tinuation, division, renewal, or substitute, the	ained for said invention by the above application or any ereof, and as to letters patent any re-issue or re-examination
be r	ASSIGNOR hereby covenants that no ass made or entered into which would conflict v	signment, sale, agreement or encumbrance has been or will with this assignment.
may or po any appl	inent facts and documents relating to said be known and accessible to ASSIGNOR roceeding related thereto and will promptly eand all papers, instruments or affidavits rec	GNEE will, upon its request, be provided promptly with all invention and said Letters Patent and legal equivalents as and will testify as to the same in any interference, litigation execute and deliver to ASSIGNEE or its legal representatives quired to apply for, obtain, maintain, issue and enforce said atent and said equivalents thereof which may be necessary
IN V	WITNESS WHEREOF, I / We have signed	
	Sep. Yt, 2002	(Date of signing)
WA	Sep. Yt, 2002	(Date of signing) ate of execution of the application if item (a) was checked above. Signature of ASSIGNOR(S) Signature of ASSIGNOR(S) Ling Island Jack Street Jack Stree
WA	RNING Date of signing must be the same as the d	(Date of signing) ate of execution of the application if item (a) was checked above. Ting—Chery Linguistics Signature or Assignification Chery Linguistics Chery L

and which is found in

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__Notarization of Legalization Page Added.