OIPE		Docket No.: YOR920020180US1 (15913)
NV. 03-01)	-21-2003	T U.S. DEPARTMENT OF COMMERC Patent and Trademark Offic
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To the Honorable Commissioner of Patents and Trade	emarks: Please record the a	attached original documents or copy thereof.
Name of conveying party(ies): 1. Birendra N. Agarwala, 2. Conrad A. Barile, 3. Hormazdyar M. Dalal, 4. Brett H. Engel, 5. Michael Lane, 6. Ernest Levine, 7. Xiao Hu Liu, 8. Vincent McGahay, 9. John F. McGrath,		ress of receiving party(ies): ational Business Machines Corporation Orchard Road
Addit onal names(s) of conveying party(ies)	No	
Nature of conveyance:		
🛛 Assignment 🔲 Merger		
Security Agreement Change of Na	ame City: Armonk	State/Prov.: New York
C Other	Country: U.S.A	A. ZIP: 10504
Execution Date: <u>4/22/03, 4/22/03, 4/28/03, 4/29/03, 4/18/</u>	/03, Additional name(s) &	address(es) 🗆 Yes 🛛 No
24/03, 4/18/03, 4/29/03, 5/2/03, 4/18/0)3, 4/28/03,	
Application number(s) or patent numbers(s): 4/22/0 if this document is being filed together with a new ap		
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Patent Application No. Filing date 10/305,534 November 27, 2002 Additional Name and address of party to whom correspondence	B. Paten	t No.(s)
Patent Application No. Filing date 10/30-5,534 November 27, 2002 Additional	B. Paten	t No.(s)
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Patent Application No. Filing date 10/30-5,534 November 27, 2002 Additional Name and address of party to whom correspondence concerning document should be mailed: Name: Steven Fischman Registration No. 34,594 Address: Scully, Scott, Murphy & Presser Customer No. 23389 /21/2003 ECOOPER 00000014 500510 10306534	B. Paten numbers Yes X M 6. Total number 7. Total fee (37 C Enclosed credited o X Authorized	t No.(s) No.(s) of applications and patents involved: 1 CFR 3.41):\$ <u>40.00</u> - Any excess or insufficiency should be r debited to deposit account d to be charged to deposit account
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PATENT REEL: 014081 FRAME: 0366

RECORDATION FORM COVER SHEET (continued)

1. Name of conveying party(ies)(continued):

10. Conal E. Murray

- 11. Jawahar P. Nayak
- 12. Du B. Nguyen 13. Hazara S. Rathore
- 13. Hazara S. Rathore 14. Thomas M. Shaw

PATENT REEL: 014081 FRAME: 0367

IBM Docket No.: YOR920020180US1 SSMP: 15913

ASSIGNMENT

Whereas, we

Inventor and City	(1) Birendra N. Agarwala County of Dutchess	City of Hopewell Junction and State of New York
and	(2) Conrad A. Barile County of Dutchess	City of Wappingers Falls and State of New York
anc	(3) Hormazdyar M. Dalal County of Dutchess	City of LaGrangeville and State of New York
anci	(4) Brett H. Engel County of Dutchess	City of Hopewell Junction and state of New York
anc	(5) Michael Lane County of Westchester	City of Cortiandt Manor and State of New York
and	(6) Ernest Levine County of Dutchess	City of Poughkeepsie and State of New York
and	(7) Xiao Hu Liu County of Westchester	City of Croton-on-Hudson and state of New York
anc	(8) Vincent McGahay County of Dutchess	City of Poughkeepsle and State of New York
anci	(9) John F. McGrath County of Middlesex	City of SomervIlle and State of Massachusetts
and	(10) Conal E. Murray County of Westchester	City of Yorktown Helghts and state of New York
anc	(11) Jawahar P. Nayak County of Dutchess	City of Wappingers Falls and State of New York
and	(12) Du B. Nguyen County of Fairfield	City of Danbury and State of Connecticut
and	(13) Hazara S. Rathore County of Dutchess	City of Stormville and state of New York
and	(14) Thomas M. Shaw County of Westchester	City of Peekskill and state of New York
	have Invented certain improvements in	
Title	STACKED VIA-STUD WITH IMPROVED RELIABLI	IY IN COPPER METALLURGY

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PATENT REEL: 014081 FRAME: 0368

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IBM Docket No.: YOR920020180US1 SSMP: 15913

ASSIGNMENT (continued)

Dates That Inventors Signed the Declaration

4128 2003, and (2) (7) 4/29 4/24 4/18 4/18 4/18 4/122 2003, and 2003, and (4) (3) 2003, and 4/18 4/18 5/2 4/28 Ì) 2003, and (6) 2003, and 2003, and (8) 2003, and (9) (9) 2003, and (10) 2003, and 2003, and (12) 2003, and (11) 2003, and (14) 2003. (13) 4/21

and have executed, respectively, a United States patent application therefor on

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, the and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we the above named hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

City (3) Signed at Date on 4/2.8/03 City (4) Signed at City (4)	ignature inventor
Date on 4/28/03 Hormazyar M. Dalal sig (Rormazyar M. Dalal) in First Name Middle Initial Last Name	inventor
	ignature nventor
	gnature nventor

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		IBM Docket No.: YO R920020180 US1 SSMP: 15913
	ASSIGNME	ENT (continued)
City	(5) Signed at	
Date	on 4-18-03	(Michael Lane) inventor First Name Middle Initial Last Name
City	(6) Signed at	
Date	on 4/24/03	(Ernest Levice) inventor First Namo Middle Initial Last Name
City	(7) Signed at	P
Date	on 4-18-2003	XIao H. Uu Signature (XIao H. Uu) Inventor First Name Middle Initiat Last Name
City	(8) Signed at Spench Jet My	
Dəte	on $4/21/63$	Wincent Middle Initial Last Nome) inventor
City	(9) Signed at (anstacity, Hit-	N I MEAA
Dats	on 5/203	Alt F. McGrath Signature (Aphr F. McGrath) Inventor Sirst Name Middle Initial Last Name
City	(10) Signed at	
Dale	on 4/18/03	(Conal E. Murray) inventor First Name Middle Initial Last Name
Cirty	(11) Signed at on 4/38/03	Journ P. Nayak signature
Dale		Newshar P. (Nayak) Inventor First Name Middle Initial Last Name
City	(12) Signed at	XOI
Date	on 4/22/03	(Du B. Nguyen) inventor First Name Middle Initia Last Name
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IBM Docket No.: YOR920020180US1 SSMP: 15913

ASSIGNMENT (continued)

City Date

(13) Signed at 4/21/03

traje	s. Rat	the	signature
(Hazara	S.	Rathore) inventor
First Name	Middle Initial	Last Name	

City (14) Signed at 4/18/03 on Date

on

signature Shaw M.) inventor Thomas First Name Middle Initial Last Name

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PATENT REEL: 014081 FRAME: 0371