03-01-1999 U.S. Department of Commerce FORM PTO-1619A Patent and Trademark Office PATENT 100975740 RECORDATION FORM COVER SHEET PATENTS ONLY TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(Submission Type Conveyance Type Assignment Security Agreement х New Resubmission (Non-Recordation) License Change of Name Document ID# Correction of PTO Error Other Merger Reel # Frame # U.S. Government Corrective Document (For Use ONLY by U.S. Government Agencies) Reel# Frame # Departmental File Secret File Conveying Party(ies) Mark if additional names of conveying parties attached **Execution Date** Month Day Year Name (line 1) LOPATIN, Sergey D 09 1999 02 Name (line 2) Execution Date Month Day Year Second Party Name (line 1) IACOPONI, John A. 02 11 1999 Name (line 2) **Receiving Party** Mark if additional names of receiving parties attached If document to be recorded Name (line 1) Advanced Micro Devices, Inc. is an assignment and the receiving party is not domiciled in the United Name (line 2) States, an appointment of a domestic Address (line 1) One AMD Place representative is attached. (Designation must be a separate document from Address (line 2) P.O. Box 3453 Assignment.) Address (line 3) |Sunnyvale California 94088-3453 **Domestic Representative Name and Address** Enter for the first Receiving Party only. Name Mikio Ishimaru Address (line 1) The Law Offices of Mikio Ishimaru Address (line 2) 1046 Pinenut Court Address (line 3) |Sunnyvale, CA 94087 Address (line 4) FOR OFFICE USE ONLY 02/26/1999 JSHABAZZ 00000054 010365 09252165 40.00 CH 11 FC:581

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Mail documents to be recorded with required cover sheet(s) information to: Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

> PATENT REEL: 9782 FRAME: 0805

FORM PT(Expires 06/30/99 OMB 0651-0027	O-1619B	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT	
Correspondent Name and Address Area Code and Telephone Number (408) 738-0592				
Name	Mikio Ishimaru			
Address (line 1)	The Law Offices of Mikio Ishi	maru		
Address (line 2)	1046 Pinenut Court			
Address (line 3)	Sunnyvale, CA 94087			
Address (line 4)				
Pages	Enter the total number of pages of the including any attachments.	attached conveyance document	# 4	
Application Number(s)				
Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property). Patent Application Number(s) Patent Number(s)				
	7			
	7			
If this document is being flied together with a <u>new Patent Application</u> , enter the date the patent application was Month Day Year signed by the first named executing inventor. Nonth Day Year 0.2 0.9 1.999				
-	peration Treaty (PCT)	РСТ	РСТ	
<u>only</u>	er PCT application number if a U.S. Application Number PCT not been assigned.	PCT	PCT	
Number of Properties Enter the total number of properties involved. # 1				
Fee Amount Fee Amount for Properties Listed (37 CFR 3.41): \$ 40.00				
Method of Payment: Enclosed Deposit Account X				
Deposit Account (Enter for payment by deposit account or if additional fees can be charged to the account.)				
	·		0365	
01.1		on to charge additional fees: Yes	X No	
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. Charges to deposit account are authorized, as indicated herein.				
	Ishimaru 70	Signature	February 18, 1999	
Name	of Person Signing	Signature	Date	

Docket No: D364 Ref: 1000-029

ASSIGNMENT

WHEREAS, the undersigned (hereinafter termed Assignor(s)) has/have invented certain new and useful improvements in

" SEMICONDUCTOR METALIZATION BARRIER AND MANUFACTURING METHOD THEREFOR"

for which a United States patent application has been concurrently executed on the date of this assignment.

WHEREAS, ADVANCED MICRO DEVICES, INC., a Corporation of the State of Delaware, having a place of business at One AMD Place, P.O. Box 3453, Sunnyvale, California 94088-3453, (hereinafter termed Assignee), is desirous of acquiring the entire right, title and interest in and to said application and said invention and improvements thereon, and in and to Letters Patents thereon when granted in the United States and foreign countries.

NOW, THEREFORE, for good and valuable consideration received by said Assignor(s) from said Assignee, the receipt of which is hereby acknowledged by said Assignor(s):

- 1. Said Assignor(s) does hereby sell, assign, transfer and convey unto said Assignee, the entire right, title and interest in and to said application and said invention and in and to any and all improvements on said invention and in and to any and all improvements on said invention heretofore or hereafter made or acquired by said Assignor(s); and in and to any and all Letters Patent on said invention and/or said improvements that may be granted in the United States or any foreign country, including each and every Letters Patent granted on any application which is a division, continuation, substitution, renewal, or continuation-in-part of any said application, and in and to each and every reissue or extension of said Letters Patent.
- 2. Said Assignor(s) hereby covenants and agrees to cooperate with said Assignee where said Assignee may enjoy to the fullest extent the right, title and interest herein conveyed. Such cooperation shall include (a) prompt execution of all papers (prepared at the expense of Assignee) which are deemed necessary or desirable by Assignee to perfect in it the right, title and interest herein conveyed, (b) prompt execution of all petitions, oaths, specifications or other papers (prepared at the expense of Assignee) which are deemed necessary or desirable by assignee for prosecuting said application, for filing and prosecuting divisional, continuation, substitution, renewal, continuation-in-part, or additional applications in the United States and/or foreign countries covering said invention and/or said improvements, for filing and prosecuting applications for reissuance of letters patent included herein, or for interference proceedings involving said invention and/or said improvements and (c) prompt assistance and cooperation in the prosecution of interference proceedings involving said invention and/or said improvements and in the adjudication of said Letters Patent, particularly by the disclosure of facts and the production of evidence relating to said invention and/or said improvements, provided the expenses which may be incurred by said Assignor(s) in lending such assistance and cooperation shall be paid by the Assignee.
- 3. The terms, covenants and conditions of this assignment shall inure to the benefit of said Assignee, its successors, assigns and/or other legal representatives and shall be binding upon said Assignor(s), his/her heirs, legal representatives and assigns.
- 4. Said Assignor(s) hereby warrants and represents that he/she has not entered into any assignment, contract or understanding in conflict herewith.

PATENT REEL: 9782 FRAME: 0807

IN WITNESS WHEREOF, the said date set forth below.	Assignor has executed and delivered this instrument on the		
<u>2/9/99</u> Date	Sergey Lofation Sergey D: Lopatin		
STATE OF CALIFORNIA COUNTY OF SANTA CLARA))ss.)		
to be the person(s) whose name(s) is/ to me that he/she/they executed the	Morena G. Molina, Notary Public, personally to me (or proved to me on the basis of satisfactory evidence) are subscribed to the within instrument and acknowledged same in his/her/their authorized capacity(ies), and that by ument the person(s), or the entity upon behalf of which the nent.		
WITNESS my hand and official seal	l. O		
Signature Mosera L.	MORENA G. MOUNA Commission #1065389 Notary Public — California SANTA CLARA COUNTY My Comm. Expires Jul 19,1999		
IN WITNESS WHEREOF, the said Assignor has executed and delivered this instrument on the date set forth below.			
Date	John A. Iacoponi		
STATE OF)		
COUNTY OF)ss.)		
On before me,	, Notary Public, personally		
appeared John A. Iacoponi, known to to be the person(s) whose name(s) is/to me that he/she/they executed the s	are subscribed to the within instrument and acknowledged same in his/her/their authorized capacity(ies), and that by ument the person(s), or the entity upon behalf of which the		
WITNESS my hand and official seal			
Signature			

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Docket No: D364 Ref: 1000-029

ASSIGNMENT

WHEREAS, the undersigned (hereinafter termed Assignor(s)) has/have invented certain new and useful improvements in

" SEMICONDUCTOR METALIZATION BARRIER AND MANUFACTURING METHOD THEREFOR"

for which a United States patent application has been concurrently executed on the date of this assignment.

WHEREAS, <u>ADVANCED MICRO DEVICES</u>, <u>INC.</u>, a Corporation of the State of <u>Delaware</u>, having a place of business at <u>One AMD Place</u>, <u>P.O. Box 3453</u>, Sunnyvale, California 94088-3453, (hereinafter termed Assignee), is desirous of acquiring the entire right, title and interest in and to said application and said invention and improvements thereon, and in and to Letters Patents thereon when granted in the United States and foreign countries.

NOW, THEREFORE, for good and valuable consideration received by said Assignor(s) from said Assignee, the receipt of which is hereby acknowledged by said Assignor(s):

- 1. Said Assignor(s) does hereby sell, assign, transfer and convey unto said Assignee, the entire right, title and interest in and to said application and said invention and in and to any and all improvements on said invention heretofore or hereafter made or acquired by said Assignor(s); and in and to any and all Letters Patent on said invention and/or said improvements that may be granted in the United States or any foreign country, including each and every Letters Patent granted on any application which is a division, continuation, substitution, renewal, or continuation-in-part of any said application, and in and to each and every reissue or extension of said Letters Patent.
- 2. Said Assignor(s) hereby covenants and agrees to cooperate with said Assignee where said Assignee may enjoy to the fullest extent the right, title and interest herein conveyed. Such cooperation shall include (a) prompt execution of all papers (prepared at the expense of Assignee) which are deemed necessary or desirable by Assignee to perfect in it the right, title and interest herein conveyed, (b) prompt execution of all petitions, oaths, specifications or other papers (prepared at the expense of Assignee) which are deemed necessary or desirable by assignee for prosecuting said application, for filing and prosecuting divisional, continuation, substitution, renewal, continuation-in-part, or additional applications in the United States and/or foreign countries covering said invention and/or said improvements, for filing and prosecuting applications for reissuance of letters patent included herein, or for interference proceedings involving said invention and/or said improvements and (c) prompt assistance and cooperation in the prosecution of interference proceedings involving said invention and/or said improvements and in the adjudication of said Letters Patent, particularly by the disclosure of facts and the production of evidence relating to said invention and/or said improvements, provided the expenses which may be incurred by said Assignor(s) in lending such assistance and cooperation shall be paid by the Assignee.
- 3. The terms, covenants and conditions of this assignment shall inure to the benefit of said Assignee, its successors, assigns and/or other legal representatives and shall be binding upon said Assignor(s), his/her heirs, legal representatives and assigns.
- 4. Said Assignor(s) hereby warrants and represents that he/she has not entered into any assignment, contract or understanding in conflict herewith.

PATENT REEL: 9782 FRAME: 0809 Docket No: D364 Ref: 1000-029

IN WITNESS WHEREOF, the said Assignor has executed and delivered this instrument on the date set forth below. Date Sergey D. Lopatin STATE OF CALIFORNIA)ss. COUNTY OF SANTA CLARA before me, , Notary Public, personally On appeared Sergey D. Lopatin, known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. WITNESS my hand and official seal. Signature IN WITNESS WHEREOF, the said Assignor has executed and delivered this instrument on the date set forth below. John A. Iacoponi STATE OF 101 COUNTY OF TAMES 11 1999 before me Showlass , Notary Public, personally appeared John A. Iacoponi, known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. WITNESS my hand and official seal.

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RECORDED: 02/18/1999