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10-13-2004

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U.S. DEPARTMENT OF COMMERCE
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102857386

15364 U.S. PTO
10/957247
100104

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):

Christopher F. Lyons
Ramkumar Subramanian
Sergey D. Lopatin
James J. Xie
Angela T. Hui
Execution Date(s) 6/14/04; 6/15/04; 6/16/04; 7/6/04

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)

Name: Advanced Micro Devices, Inc.

Internal Address: _____

Street Address: One AMD Place, P.O. Box 3453

City: Sunnyvale

State: California

Country: USA Zip: 94088

Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Government Interest Assignment
- Executive Order 9424, Confirmatory License
- Other _____

4. Application or patent number(s):

This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

10/07/004 HALI11 00000029 10957247

10957247

02 FC:0021 40.00 DP

Additional numbers attached? Yes No

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

Name: Gregory Turocy

Internal Address: _____

Amin & Turocy, LLP

Street Address: 24th Floor, National City Center

1900 E. 9th Street

City: Cleveland

State: Ohio Zip: 44114

Phone Number: 216-696-8730

Fax Number: 216-696-8731

Email Address: _____

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- Authorized to be charged by credit card
- Authorized to be charged to deposit account
- Enclosed
- None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers 7626
Expiration Date 02/07

b. Deposit Account Number 50-1063

Authorized User Name Gregory Turocy

9. Signature:

Signature

October 1, 2004

Date

Gregory Turocy, 36,952

Total number of pages including cover sheet, attachments, and documents: 7

Name of Person Signing

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT
REEL: 015868 FRAME: 0107

ASSIGNMENT

For good and valuable consideration received of the hereinafter named assignee, receipt of which is hereby acknowledged, the undersigned

Christopher F. Lyons
42681 Lerwick Street
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1155-D La Rochelle Terrace
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Angela T. Hui
362 Pilgrim Loop
Fremont, CA 94539

Sergey D. Lopatin
1000 Kiely Blvd., #66
Santa Clara, CA 95051

hereby sell and assign to ADVANCED MICRO DEVICES, INC., a corporation of Delaware having a place of business at One AMD Place, P.O. Box 3453, Sunnyvale, California 94088-3453, U.S.A., its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries, in and to the inventions entitled

**SO₂ TREATMENT OF OXIDIZED CuO FOR COPPER SULFIDE FORMATION OF
MEMORY ELEMENT GROWTH**

for which application for United States Letters Patent has been filed on _____ under Serial No. _____, or was executed by the undersigned on the date below and is being filed concurrently herewith, said application for United States Letters Patent, any and all other applications for Letters Patent on said inventions in countries foreign to the United States, including all divisional, renewal, substitute, continuation and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said applications and said Letters Patent; said assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said assignee or otherwise as said assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments being hereby authorized to issue or transfer all said Letters Patent to said assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right heretofore given, and that the undersigned will do all acts reasonably serving to assure that said inventions, patent applications and

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Signed: C.F.L.
Christopher F. Lyons

Date: 7/6/04

CERTIFICATE OF ACKNOWLEDGMENT

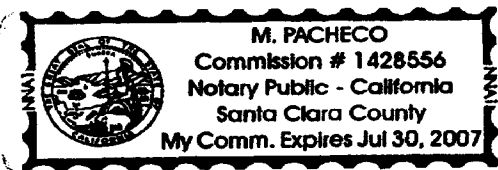
State of California

County of Santa Clara

On July 6, 2004 before me, M. Pacheco, Notary Public
Name and Title of Officer (e.g., "Jane Doe,

Notary Public")
personally appeared Christopher F. Lyons
Name(s) of Signer(s)

personally 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.
M. Pacheco
Signature of Notary Public

Signed:

Date:

Ramkumar
Ramkumar Subramanian

6/14/04

CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Santa Clara

On June 14, 2004 before me, M. Pacheco, Notary Public,

Name and Title of Officer (e.g., "Jane Doe,

Notary Public")

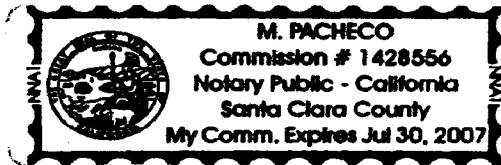
personally appeared Ramkumar Subramanian

Name(s) of Signer(s)

personally 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.

M. Pacheco
Signature of Notary Public



Signed:

Date:

Sergey Lopatin

6/16/2004

Sergey D. Lopatin

CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Santa Clara

On June 16, 2004 before me, M. Pacheco, Notary Public,

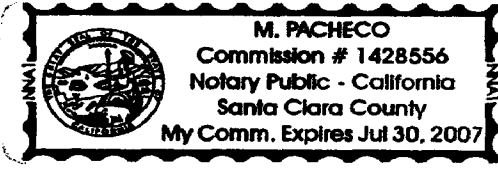
Name and Title of Officer (e.g., "Jane Doe,

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personally appeared Sergey D. Lopatin

Name(s) of Signer(s)

personally 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.

M. Pacheco

Signature of Notary Public

Signed:

Date:

[Signature]
James J. Xie

6/15/04

CERTIFICATE OF ACKNOWLEDGMENT

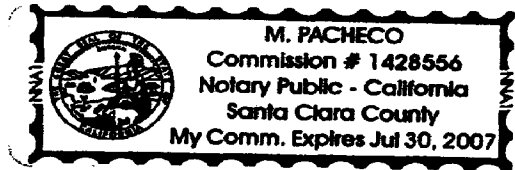
State of California

County of Santa Clara

On June 15, 2004 before me, M. Pacheco, Notary Public,
Name and Title of Officer (e.g., "Jane Doe,

Notary Public")
personally appeared James J. Xie
Name(s) of Signer(s)

personally 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]
Signature of Notary Public

Signed: Angela T. Hui Date: 6/15/04
Angela T. Hui

CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Santa Clara

On June 15, 2004 before me, M. Pacheco Notary Public

Name and Title of Officer (e.g., "Jane Doe,

Notary Public")

personally appeared Angela T. Hui

Name(s) of Signer(s)

personally 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.

M. Pacheco
Signature of Notary Public