06-10-1998

FORM PTO-1596 6 1 1 31-92

RECORD



U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

| 1 | Please record the attached original documents or copy thereto: |
|---|---|
| To the Honorable Commissioner of Patents and Trademarks: | |
| Name of conveying party(ies): | 2. Name and address of receiving party(ies): |
| Nick KEPLER, Basab BANDYOPADHYAY, Olov KARLSSON, Larry WANG, Effiong IBOK, Christopher F. LYONS | Name and address of receiving party(ies): Name: Advanced Micro Devices, Inc. Internal Address: |
| WANG, Emong IBOK, Christopher F. LTONS | Internal Address: |
| Additional name (a) of conveying porty(ies) attached? Ves. V. No. | mema Address. |
| Additional name(s) of conveying party(ies) attached?Yes X_No | |
| 3. Nature of conveyance: | Street Address: One AMD Place, P.O. Box 3453 |
| X Assignment Merger | Sueet Address. One AMD Place, P.O. Box 3433 |
| Security Agreement Change of Name | City: Sunnyvale State/Country: CALIFORNIA ZIP: 94088- |
| Other | |
| Execution Date: May 8, 11, 13, 15, and 19, 1998 | Additional name(s) & address(es) attached? _ Yes _X No |
| 4. Application number(s) or patent number(s): | |
| If the document is being filed together with a new application, the ex- | ecution date of the application is: May 8, 11, 13, 15, and 19, 1998 |
| A. Patent Application No(s). | B. Patent No(s). |
| 5. Name and address of party to whom correspondence | 6. Total number of applications and patents involved: 1 |
| concerning document should be mailed: | |
| Name: McDERMOTT, WILL & EMERY | 7. Total fee (37 CFR 3.41)\$40.0 |
| | 7. Total fee (37 CFR 3.41)\$40.0 |
| Name: McDERMOTT, WILL & EMERY | |
| Name: McDERMOTT, WILL & EMERY | Enclosed |
| Name: McDERMOTT, WILL & EMERY Internal Address: | Enclosed X Authorized to be charged to deposit account |
| Name: McDERMOTT, WILL & EMERY Internal Address: Street Address: 99 Canal Center Plaza, Suite 300 | Enclosed X Authorized to be charged to deposit account 8. Deposit account number: |
| Name: McDERMOTT, WILL & EMERY Internal Address: Street Address: 99 Canal Center Plaza, Suite 300 City: Alexandria State: VA ZIP: 22314 | Enclosed X Authorized to be charged to deposit account 8. Deposit account number: 500417 |
| Name: McDERMOTT, WILL & EMERY Internal Address: Street Address: 99 Canal Center Plaza, Suite 300 City:Alexandria State:VA ZIP:22314 DO NOT USE | Enclosed X Authorized to be charged to deposit account 8. Deposit account number: 500417 |
| Name: McDERMOTT, WILL & EMERY Internal Address: Street Address: 99 Canal Center Plaza, Suite 300 City: Alexandria State: VA ZIP: 22314 | Enclosed X Authorized to be charged to deposit account 8. Deposit account number: 500417 THIS SPACE |
| Name: McDERMOTT, WILL & EMERY Internal Address: Street Address: 99 Canal Center Plaza, Suite 300 City:Alexandria State:VA ZIP:22314 308 INBUTEN 0000099 500417 09087662 DO NOT USE 40.00 CH 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is to | Enclosed X Authorized to be charged to deposit account 8. Deposit account number: 500417 THIS SPACE |

PATENT REEL: 9220 FRAME: 0197

Docket No.: 1033-300

<u>A S S I G N M E N T</u>

WHEREAS WE, Nick Kepler, Basab Bandyopadhyay, Olov Karlsson, Larry Wang, Effiong Ibok, and Christopher F. Lyons, respectively, have made a certain new and useful invention as set forth in an application for United States Letters Patent, entitled SHALLOW TRENCH ISOLATION FORMATION WITH TRENCH WALL SPACER executed by us on the date of execution of this document, as shown below, and filed concurrently herewith;

OR

for which an application for United States Letters Patent was filed on Serial No.

and identified by United States

AND WHEREAS, Advanced Micro Devices, Inc., a corporation of the State of <u>Delaware</u> and having an address of One AMD Place, P. O. Box 3453, Sunnyvale, California 94088-3453 is desirous of acquiring the entire right, title and interest in and to said invention and in and to any and all Letters Patent of the United States and foreign countries which may be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt for and sufficiency of which is hereby acknowledged, We do hereby sell, assign, transfer and set over unto Advanced Micro Devices, Inc., its legal representatives, successors, and assigns, the entire right, title and interest in and to said invention as set forth in the above-mentioned application, including any continuations, continuations-in-part, divisions, reissues, re-examinations or extensions thereof, and in and to any and all patents of the United States and foreign countries which may be issued for said invention;

UPON SAID CONSIDERATIONS, We hereby agree with the said assignee that We will not execute any writing or do any act whatsoever conflicting with these presents, and that We will, at any time upon request, without further or additional consideration but at the expense of said assignee, execute such additional assignments and other writings and do such additional acts as said assignee may deem necessary or desirable to perfect the assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, continuations, continuations-in-part, reexamined, reissued, or extended Letters Patent of the United States or of any and all foreign countries on said invention, and in enforcing any rights or choses in action accruing as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of the assigns and legal representatives of assignor and assignee;

AND We request the Commissioner of Patents and Trademarks to issue any Letters Patent of the United States which may be issued for said invention to said Advanced Micro Devices, Inc., its legal representatives, successors or assigns, as the sole owner of the entire right, title and interest in and to said patent and the invention covered thereby.

| Date | Nick Kepler |
|---------------|----------------------------|
| Date 5/13/98 | Basab Bandyopadhyay |
| Date 5/8/98 | Olov Karlsson Carry Wang |
| Date 5 19 9 9 | Larry Wang |
| Date 5/8/98 | Efficiency That C. A. Lyon |
| Date | Christopher F. Lyons |

PATENT REEL: 9220 FRAME: 0198

| COUNTY OF Santa Clara) SS: |
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| on May 11, 1998 before me, Morena G. Molina, Notary Public, personally appeared Nick Kepler, 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 of Notary) My commission expires (seal of Notary) MORENA G. MOLINA Commission #065389 Notary Public — Colifornia SANTA CLARA COUNTY My Comm. Expires Jul 19,1999 |
| STATE OF CALIFORNIA) SS: COUNTY OF |
| On |
| WITNESS my hand and official seal. |
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| (signature of Notary) (seal of Notary) |
| (signature of Notary) (seal of Notary) My commission expires |
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PATENT

REEL: 9220 FRAME: 0199

| STATE OF CALIFORNIA) |
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| COUNTY OF Santa Clara, SS: |
| On May 8 1998 before me, Morena G. Molina, Motary Public personally appeared Larry wang |
| personally appeared Larry Wang, |
| 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 of Notary) (seal of Notary) |
| (signature of Notary) (seal of Notary) MORENA G. MOUNA |
| My commission expires July 19, 1999. White of the commission o |
| SANTA CLARA COUNTY |
| My Comm. Expires Jul 19, 1999 |
| STATE OF CALIFORNIA) |
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| COUNTY OF Sonta Chan) SS: On May 20, 1998 before me, Morena G. Molina, Notary Public , |
| personally appeared |
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| 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. |
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| Malera J. Mold (signature of Notary) (seal of Notary) |
| (signature of Notary) (seal of Notary) MORENA G. MOUNA |
| My commission expires 19 / 9 9 9 Commission #1065389 3 |
| Notary Public — California Santa CLARA COUNTY |
| My Comm. Expires Jul 19,1999 |
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| STATE OF CALIFORNIA) SS: |
| COUNTY OF South Clarka) 33. |
| - May a 1999 1 linear C Deans Not White |
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| personally appeared Christopher F. Lyns (C.F. Lyns) |
| personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(x) whose name(x) is/are subscribed to the within instrument and acknowledged to me that (ne)sho/they executed the same in (his/her/their |
| authorized capacity(les), and that by his/her/their signature(s) on the instrument the person(x), or the entity upon behalf |
| of which the person(s) acted, executed the instrument. |
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REEL: 9220 FRAME: 0200

Docket No.: 1033-300

<u>ASSIGNMENT</u>

WHEREAS WE, Nick Kepler, Basab Bandyopadhyay, Olov Karlsson, Larry Wang, Effiong Ibok, and Christopher F. Lyons, respectively, have made a certain new and useful invention as set forth in an application for United States Letters Patent, entitled SHALLOW TRENCH ISOLATION FORMATION WITH TRENCH WALL SPACER executed by us on the date of execution of this document, as shown below, and filed concurrently herewith;

OR

for which an application for United States Letters Patent was filed on Serial No.

and identified by United States

AND WHEREAS, Advanced Micro Devices, Inc., a corporation of the State of <u>Delaware</u> and having an address of One AMD Place, P. O. Box 3453, Sunnyvale, California 94088-3453 is desirous of acquiring the entire right, title and interest in and to said invention and in and to any and all Letters Patent of the United States and foreign countries which may be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt for and sufficiency of which is hereby acknowledged, We do hereby sell, assign, transfer and set over unto Advanced Micro Devices, Inc., its legal representatives, successors, and assigns, the entire right, title and interest in and to said invention as set forth in the above-mentioned application, including any continuations, continuations-in-part, divisions, reissues, re-examinations or extensions thereof, and in and to any and all patents of the United States and foreign countries which may be issued for said invention;

UPON SAID CONSIDERATIONS, We hereby agree with the said assignee that We will not execute any writing or do any act whatsoever conflicting with these presents, and that We will, at any time upon request, without further or additional consideration but at the expense of said assignee, execute such additional assignments and other writings and do such additional acts as said assignee may deem necessary or desirable to perfect the assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, continuations, continuations-in-part, reexamined, reissued, or extended Letters Patent of the United States or of any and all foreign countries on said invention, and in enforcing any rights or choses in action accruing as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of the assigns and legal representatives of assignor and assignee;

AND We request the Commissioner of Patents and Trademarks to issue any Letters Patent of the United States which may be issued for said invention to said Advanced Micro Devices, Inc., its legal representatives, successors or assigns, as the sole owner of the entire right, title and interest in and to said patent and the invention covered thereby.

| Date | Nick Kepler |
|------------|--|
| 5 5 9 Date | Basab Bandyopadhyay Basab Bandyopadhyay |
| | |
| 5 8 98 | Olov Karlsson Carry Wawf |
| Date | Larry Wang |
| Date | Effiong Ibok |
| Date | Christopher F. Lyons |
| | PATENT |

PATENT

REEL: 9220 FRAME: 0201

| STATE OF CALIFORNIA)) SS: | |
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| On before me, | |
| personally appeared | hey executed the same in his/her/thei |
| WITNESS my hand and official seal. | |
| (signature of Notary) | (seal of Notary) |
| My commission expires | |
| Texas state of california)) ss: county of <u>Travis</u> | |
| on 15 May 98 before me, Laura K. Fe personally appeared Basab Bandy o padhyay personally known to me (or proved to me on the basis of satisfactory evidence) subscribed to the within instrument and acknowledged to me that he/she/th | to be the person(s) whose name(s) is/a hey executed the same in his/her/the |
| authorized capacity(ies), and that by his/her/their signature(s) on the instrument of which the person(s) acted, executed the instrument. | t the person(s), or the entity upon beha |
| WITNESS my hand and official seal. **Xaura K Jenton (signature of Notary) | LAURA K. FENTON Notary Public, State of Texas Ny Commission Expires Dec. 21, 1998 or Direct Of Notary) |
| My commission expires 21 Dec. 98 | The state of the s |
| STATE OF CALIFORNIA)) SS: COUNTY OF | |
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PATENT REEL: 9220 FRAME: 0202

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| personally appeared personally known to me (or prosubscribed to the within instrauthorized capacity(ies), and the of which the person(s) acted, e | before me, Morena G. y (Nang) wed to me on the basis of satisfactory evi ument and acknowledged to me that h at by his/her/their signature(s) on the insi kecuted the instrument. | Molina, Motary Public idence) to be the person(s) whose name(s) is/are ne/she/they executed the same in his/hef/their trument the person(s), or the entity upon behalf (seal of Notary) MORENA G. MOLINA Commission #1055389 Notary Public — Colifornia SANTA CLARA COUNTY |
| STATE OF CALIFORNIA COUNTY OF |)) SS:) | My Comm. Expires Jul 19,1999 |
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| | (signature of Notary) | (seal of Notary) |
| My commission expires | | |

PATENT REEL: 9220 FRAME: 0203

RECORDED: 06/01/1998