

Client Code: IMEC182.001AUS/001C1/001C1C1

RECORDATION FORM COVER SHEET PATENTS ONLY

TO THE ASSISTANT COMMISSIONER FOR PATENTS: Please record the attached original documents or copy thereof.

1. Name of conveying party: (If multiple assignors, list numerically)

ASM America, Inc.

Additional name(s) of conveying party attached?

() Yes (X) No

2. Name and address of receiving parties:

Name: Interuniversitair MicroElectronica Centrum VZW
(IMEC)

Internal Address: Kapeldreef 75, 3001
Leuven, Belgium

Additional name(s) of receiving party(ies) attached?

(X) Yes () No

3. Nature of conveyance:

(X) Assignment
() Merger
() Security Agreement
() Change of Name
() Other:

Execution Date: (If multiple assignors, list execution dates in numerical order corresponding to numbers indicated in 1 above) January 14, 2004

4. Application numbers or Patent numbers:

(X) Patent Application No.: 10/731,656
Filing Date: December 8, 2003

(X) Patent No.: 6,664,192
Issuc Date: December 16, 2003

(X) Patent No.: 6,391,785
Issue Date: May 21, 2002

Additional numbers attached? () Yes (X) No

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

Name: Andrew N. Merickel
KNOBBE, MARTENS, OLSON & BEAR, LLP
Customer No. 20,995

Internal Address: Fourteenth Floor

Street Address: 2040 Main Street

City: Irvine State: CA ZIP: 92614

Attorney's Docket No.: IMEC182.001AUS

(X) Enclosed

(X) Authorized to be charged to deposit account if any additional fees are required, or to credit any overpayment

8. Deposit account number: 11-1410

Please charge this account for any additional fees which may be required, or credit any overpayment to this account.

6. Total number of applications and patents involved: 3

9. 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.

Andrew N. Merickel
Name of Person Signing

Signature

Date

53,317

Registration No.

Total number of pages including cover sheet, attachments and document: 4

Mail documents to be recorded with required cover sheet information to:

Mail Stop Assignment Recordation Services
Director, U.S. Patent and Trademark Office
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Alexandria, VA 22313-1450

2. Name and address of receiving party(is)

Name: ASM International NV

Internal Address: Jan Van Eycklaan 10, 3723BC
Bilthoven, The Netherlands

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Patent No.: 6,391,785
Issue Date: May 21, 2002

PATENT
Client Code: IMEC182.001AUS
Page 1

ASSIGNMENT

WHEREAS, ASM America, Inc., a U.S. corporation having offices at 3440 University Drive, Phoenix, AZ 85034-7200 (hereinafter "ASSIGNOR"), represents and warrants that it is the assignee of record for certain new and useful improvements disclosed in the following United States issued Letters Patents and pending applications in the United States (hereinafter "the Patents"):

<u>Patent No.</u> 6,391,785	<u>Issue Date</u> May 21, 2002	<u>Title</u> METHOD OF BOTTOMLESS DEPOSITION OF BARRIER LAYERS IN INTEGRATED CIRCUIT METALLIZATION SCHEMES
<u>Application No.</u> 10/123,492	<u>Filing Date</u> April 15, 2002	<u>Title</u> METHOD OF BOTTOMLESS DEPOSITION OF BARRIER LAYERS IN INTEGRATED CIRCUIT METALLIZATION SCHEMES

WHEREAS, Interuniversitair MicroElectronica Centrum VZW (IMEC), a Belgium corporation having offices at Kapeldreef 75, 3001 Leuven, Belgium, and ASM International NV, a Netherlands corporation having offices at Jan Van Eycklaan 10, 3723BC Bilthoven, the Netherlands (hereinafter "ASSIGNEES") desire to purchase the entire right, title, and interest in and to the inventions disclosed in the Patents;

NOW, THEREFORE, in return for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby further acknowledges that it has sold, assigned, and transferred, and by these presents does hereby sell, assign, and transfer, unto ASSIGNEES, their successors, legal representatives, and assigns, any right, title, and interest throughout the world in, to, and under the said improvements, and the said Patents and all Patents that may be granted thereon, and all provisional applications relating thereto, and all divisions, continuations, reissues, reexaminations, renewals, and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent that may hereafter be filed for said improvements or for the said Patents in any country or countries foreign to the United States; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements and all Letters Patents resulting from the Patents to ASSIGNEES, their successors, legal representatives, and assigns, in accordance with the terms of this Agreement.

ASSIGNOR does hereby sell, assign, transfer, and convey to ASSIGNEES, their successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEES, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of the said issued Letters Patents;

ASSIGNOR hereby covenants and agrees that it will communicate to ASSIGNEES, their successors, legal representatives, and assigns any facts known to ASSIGNOR respecting the Patents immediately upon becoming aware of those facts, and that it will testify in any legal proceeding involving any of the Patents, will sign all lawful papers, execute all divisional, continuing, and reissue applications, make all rightful oaths, and will generally do everything possible to aid ASSIGNEES, their successors, legal representatives, and assigns to obtain and enforce the Patents in all countries.

Patent No.: 6,391,785
Issue Date: May 21, 2002

PATENT
Client Code: IMEC182.001AUS
Page 2

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 14th day of January, 2004

Todd Westersund
ASM America, Inc.

By: Todd Westersund

Name Printed: _____

Title: Intellectual Property Officer

Date: January 14, 2004

STATE OF _____

COUNTY OF _____

ss.

On January 14, 2004, before me, Judy Murphy, personally appeared 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 executed the same in his authorized capacity(ies), and that by his 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.

[SEAL]



JUDY MURPHY
Notary Public - Arizona
MARICOPA COUNTY
My Comm. Exp. 8-29-2006

Judy Murphy
Notary Signature

W:\DOCS\ANM\ANM-5341.DOC
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Page 1

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September 2, 2005

VIA FACSIMILE (571) 273-0140**Mail Stop Assignment Recordation Services**

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Re: NOTICE OF RECORDATION

Title: METHOD FOR BOTTOMLESS DEPOSITION OF BARRIER LAYERS
IN INTEGRATED CIRCUIT METALLIZATION SCHEMES

Patent Number: 6,391,785

Issued: May 21, 2002


Our Reference No.: IMEC182.001AUS

To Whom It May Concern:

The attached Assignment and Recordation cover sheet were filed on January 16, 2004. Upon checking PAIR and after a telephone conversation with Ms. Shepard of the U.S. Patent and Trademark Office, it has been determined that the attached assignment was never recorded in the PTO. However, the check accompanying the documents was cashed by the PTO, indicating receipt of the documents. A copy of the cancelled check is attached.

It is respectfully requested that the attached recordation cover sheet and assignment be recorded and a Notice of Recordation back dated to the actual filing date be issued and forwarded to us. As the check accompanying the documents was cashed by the PTO, it is believed that no fee is required. However, if there are any additional fees due, please charge our Deposit Account No. 11-1410.

Respectfully yours,



Andrew N. Merickel

Reg. No. 53,317

Customer No. 20,995

1892755

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PATENT**REEL: 016712 FRAME: 0515**

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CERTIFICATE OF FAX TRANSMISSION

September 2, 2005

I hereby certify that this correspondence and all marked
 attachments are being facsimile transmitted to (571) 273-
 0140 at the U.S. Patent and Trademark Office on the date
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TO: **Assignment Recordation Services**
 USPTO FACSIMILE NO.: **(571) 273-0140**
 USPTO REFERENCE: **Applicant: ASM America, Inc.**
Patent No.: 6,391,785
Issued: May 21, 2002
Title: METHOD FOR BOTTOMLESS DEPOSITION OF
BARRIER LAYERS IN INTEGRATED CIRCUIT
METALLIZATION SCHEMES
 PROSECUTING ATTORNEY: **Andrew N. Merickel / PHONE No.: 415-217-8396**
 ATTORNEY DOCKET NO.: **IMEC182.001AUS/001C1/001C1C1**
 TOTAL NUMBER OF PAGES: **8 (INCLUDING COVER SHEET)**
 DOCKETING AGENT: **Carol Macarty**
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PATENT**RECORDED: 09/02/2005****REEL: 016712 FRAME: 0516**