


Client Code: ASMFEO.000GEN

**RECORDATION FORM COVER SHEET  
PATENTS ONLY**

To the Director, U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

<p>1. Name of conveying party(ies): (List using letters or numbers for multiple parties)</p> <p><b>TEGAL CORPORATION</b></p> <p>Additional name(s) of conveying party(ies) attached?</p> <p>( ) Yes (X) No</p>	<p>2. Name and address of receiving party(ies):</p> <p><b>Name:</b> ASM INTERNATIONAL N.V.</p> <p><b>Internal Address:</b></p> <p><b>Street Address:</b> Versterkerstraat 8, 1322 AP Almere, THE NETHERLANDS</p> <p>Additional name(s) of receiving party(ies) attached?</p> <p>( ) Yes (X) No</p>
<p>3. Nature of conveyance:</p> <p>(X) Assignment ( ) Security Agreement</p> <p>( ) Merger ( ) Change of Name</p> <p>( ) Other:</p> <p>Execution Date: (List as in section 1 if multiple signatures)</p> <p>December 23, 2011</p>	<p>4. US or PCT Application number(s) or US Patent number(s):</p> <p>(X) Application No. / Patent No.: See attached</p> <p>Filing Date / Issue Date: See attached</p> <p>Additional numbers attached?</p> <p>(X) Yes ( ) No</p>
<p>5. Party to whom correspondence concerning document should be mailed:</p> <p><b>Customer No.</b> 20,995</p> <p><b>Address:</b> Knobbe, Martens, Olson &amp; Bear, LLP 2040 Main Street, 14<sup>th</sup> Floor Irvine, CA 92614</p> <p><b>Return Fax:</b> (949) 760-9502</p> <p><b>Attorney's Docket No.:</b> ASMFEO.000GEN</p>	<p>6. Total number of applications and patents involved: 11</p>
<p>7. Total fee (37 CFR 1.21(h)): \$440</p> <p>(X) Authorized to be charged to deposit account</p>	<p>8. Deposit account number: 11-1410</p> <p>Please charge this account for any additional fees which may be required, or credit any overpayment to this account.</p>
<p>9. Statement and signature.</p> <p>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.</p> <p><u>Adeel S. Akhtar</u> Name of Person Signing</p> <p><u></u> Signature</p> <p><u>January 25, 2012</u> Date</p> <p>41,394 Registration No.</p> <p>Total number of pages including cover sheet, attachments and document: 6</p>	

Documents transmitted via Facsimile to be recorded with required cover sheet information to:

**Mail Stop Assignment Recordation Services**  
Director, U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
**Facsimile Number: (571) 273-0140**

**ISSUED U.S. PATENTS**

<u>U.S. Serial No.</u>	<u>Filing Date</u>	<u>U.S. Patent No.</u>	<u>Issue Date</u>	<u>Title</u>
09/721,162	November 22, 2000	6,689,220	February 10, 2004	PLASMA ENHANCED PULSED LAYER DEPOSITION
10/744,889	December 23, 2003	7,361,387	April 22, 2008	PLASMA ENHANCED PULSED LAYER DEPOSITION
09/840,349	April 21, 2001	6,610,169	August 26, 2003	SEMICONDUCTOR PROCESSING SYSTEM AND METHOD
09/954,244	September 10, 2001	6,756,318	June 29, 2004	NANOLAYER THICK FILM PROCESSING SYSTEM AND METHOD
10/790,652	March 1, 2004	7,235,484	June 26, 2007	NANOLAYER THICK FILM PROCESSING SYSTEM AND METHOD
11/443,620	May 31, 2006	7,442,615	October 28, 2008	SEMICONDUCTOR PROCESSING SYSTEM AND METHOD
10/360,135	February 4, 2003	7,713,592	May 11, 2010	NANOLAYER DEPOSITION PROCESS
11/443,621	May 31, 2006	7,867,905	January 11, 2011	SYSTEM AND METHOD FOR SEMICONDUCTOR PROCESSING

**U.S. PATENT APPLICATIONS**

<u>U.S. Application No.</u>	<u>Filing Date</u>	<u>Title</u>
12/783,431	May 19, 2010	NANOLAYER DEPOSITION USING BIAS POWER TREATMENT
12/732,825	March 26, 2010	NANOLAYER DEPOSITION PROCESS
13/235,909	September 19, 2011	NANOLAYER DEPOSITION PROCESS FOR COMPOSITE FILMS

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EXHIBIT BFORM OF PATENT ASSIGNMENT

This Patent Assignment (this "Assignment") is made effective this 21<sup>st</sup> day of December, 2011, by and between Tegal Corporation, a corporation organized and existing under the laws of the State of Delaware with principal offices located at 140 Second Street, Suite 318, Petaluma, CA 94952 ("Assignor") and ASM International n.v., a corporation organized and existing under the laws of the Country of The Netherlands with principal offices located at Versterkerstraat 8, 1322 AL Almere, The Netherlands ("Assignee").

WHEREAS, Assignor possesses certain rights in and to the patents and patent applications listed in Schedule A attached hereto and the invention(s) described and/or claimed in such patents and patent applications (collectively, the "Patent Rights"); and

WHEREAS, pursuant to that certain Patent Purchase Agreement between Assignor and Assignee, dated as of the date hereof (the "Purchase Agreement"), Assignor assigned to Assignee the Patent Rights.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of the amounts paid to Assignee in the Purchase Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor has sold, assigned and transferred and by these presents does hereby sell, assign and transfer unto said Assignee, its successors, assigns, and legal representatives, Assignor's entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described and/or claimed in said Patent Rights, together with Assignor's entire right, title and interest in and to the patents and patent applications listed in Schedule A and such other patents as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said patents and patent applications or such other patents, and any right, title and interest Assignor may have in applications to which said Patent Rights claim priority; said invention(s), patent applications and patents to be held and enjoyed by said Assignee for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said patents may be granted as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made; Assignor hereby conveys all of its rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. Assignor hereby acknowledges that this assignment, being of Assignor's entire right, title and interest in and to said invention(s), applications and patents carries with it the right in Assignee to apply for and obtain from competent authorities in all countries of the world any and all patents by attorneys and agents of Assignee's selection and the right to procure the grant of all patents to Assignee in its own name as assignee of Assignor's entire right, title and interest therein;

AND, Assignor does hereby authorize and request the Director of the United States Patent and Trademark Office and the empowered officials of all other governments to issue such Patent Rights or patents as shall be granted upon said Patent Rights, or applications based thereon, to said Assignee, its successors, assigns, or legal representatives.

Assignee and Assignor also agree that multiple copies of this Assignment may be executed, each of which shall be deemed an original, and each of which shall be valid and binding upon Assignee and Assignor.

Assignee shall bear all responsibility and expense for preparing any instrument of assignment or transfer from Assignor to Assignee and for recording the same, any fee or tax levied thereon, and all prosecution and maintenance costs incurred with respect to the Patents.

IN WITNESS WHEREOF, Assignor and Assignee have caused this Assignment to be executed by their duly authorized officers as of the date first written above.

Assignor: Tegal Corporation

By: *Thomas R. Hika*

Name: THOMAS R. HIKA

Title: PRESIDENT & CEO

On this \_\_\_\_ day of \_\_\_\_\_, 2011, before me, the undersigned Notary Public, personally appeared \_\_\_\_\_, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief. The above-indicated individual is duly authorized to execute this document singly on behalf of Assignor and executed this document of his/her own free will.

\_\_\_\_\_  
Signature of Notary

My Commission Expires: \_\_\_\_\_

(Seal)

*SEE ATTACHED CALL  
NOTARIAL CERTIFICATE*

Assignee: \_\_\_\_\_

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2011, before me, the undersigned Notary Public, personally appeared \_\_\_\_\_, proved to me through satisfactory evidence of identification, which was/were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief. The above-indicated individual is duly authorized to execute this document singly on behalf of Assignee and executed this document of his/her own free will.

\_\_\_\_\_  
Signature of Notary

My Commission Expires: \_\_\_\_\_

(Seal)

## SCHEDULE A

## PATENT RIGHTS (U.S. PATENTS)

Patent Number	Registration Number	Jurisdiction	Title
6,689,220	09/721,162	US	Plasma Enhanced Pulsed Layer Deposition
7,361,387	10/744,889	US	Plasma Enhanced Pulsed Layer Deposition
6,610,169	09/840,349	US	Semiconductor Processing System and Method
6,756,318	09/954,244	US	Nanolayer Thick Film Processing System and Method
7,235,484	10/790,652	US	Nanolayer Thick Film Processing System and Method
7,442,615	11/443,620	US	Semiconductor Processing System and Method
7,713,592	10/360,135	US	Nanolayer Deposition Process
7,867,905	11/443,621	US	System and Method for Semiconductor Processing

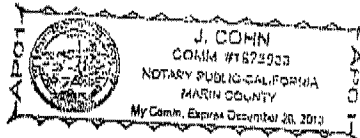
## PATENT RIGHTS (U.S. PATENT APPLICATIONS)

Patent Number	Registration Number	Jurisdiction	Title
20100285237	12/783,431	US	Nanolayer Deposition Using Bias Power Treatment
20100190353	12/732,825	US	Nanolayer Deposition Process
Not published	13/235,909	US	Nanolayer Deposition Process for Composite Films

END OF SCHEDULE A

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

State of California

County of MarinOn Dec. 23, 2011 before me, J. Cohn, Notary Public  
Here Insert Name and Title of the Officer  
 personally appeared THOMAS RAYMOND MIKA  
Name(s) of Signer(s)

who 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.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: J. Cohn

Signature of Notary Public

Place Notary Seal and/or Stamp Above

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

**Description of Attached Document**Title or Type of Document: EXHIBIT B - Form of Patent AssignmentDocument Date: 12. 21. 11 Number of Pages: 3 pgsSigner(s) Other Than Named Above: 1005E LEAF**Capacity(ies) Claimed by Signer(s)**Signer's Name: THOMAS R MIKA Signer's Name: \_\_\_\_\_
☐ Corporate Officer — Title(s): \_\_\_\_\_
 ☐ Corporate Officer — Title(s): \_\_\_\_\_

☒ Individual
 ☐ Partner — ☐ Limited ☐ General
 ☐ Individual
 ☐ Partner — ☐ Limited ☐ General

☐ Attorney in Fact
 ☐ Attorney in Fact

☐ Trustee
 ☐ Trustee

☐ Guardian or Conservator
 ☐ Guardian or Conservator

☐ Other: \_\_\_\_\_
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**PATENT****RECORDED: 01/25/2012****REEL: 027596 FRAME: 0531**