Client Code: ASMEX.324A

SHEET

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

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

Ravinder K. Aggarwal, Tony J. Keeton and Matthew G. Goodman

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

Yes

Name and address of receiving party(ies):

Name: ASM America, Inc.

Internal Address: 3440 East University Dr., Phoenix

85034-7200

Street Address: Same as above

City: State: ZIP:

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

Yes (X)

- 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) (1) March 12, 2002; (2) March 11, 2002; (3) March 11,2002

- Application number(s) or Patent number(s):
 - Application(s) filed herewith Execution Date(s): (1) March 12; 2002, (2) March
- 11, 2002; (3) March 11, 2002
 - () Patent Application No.: Filing Date:
 - Patent No .: Issue Date:

Additional numbers attached? ()

Total fee (37 CFR 1.21(h)):

(X)

Yes

\$40

No

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

Name: Adeel S. Akhtar

KNOBBE, MARTENS, OLSON & BEAR, LLP

Customer No. 20,995

Internal Address: Sixteenth Floor

Street Address: 620 Newport Center Drive City: Newport Beach State: CA ZIP: 92660

Attorney's Docket No.: ASMEX.324A

(X) Enclosed

- Authorized to be charged to deposit account if any (X) additional fees are required, or to credit any overpayment
- Deposit account number: 11-1410

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

- Total number of applications and patents involved: 1
- 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.

Adeel S. Akhtar

Name of Person Signing

41,394

Registration No.

Total number of pages including cover sheet, attachments and document: 3

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

3/28/2002 TDIAZ1

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40.00 DP

U.S. Patent and Trademark Office Attn: Assignment Division Crystal Gateway-4 1213 Jefferson Davis Highway, Suite 320 Arlington, VA 22202

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Application No.: Unknown Client Code: ASMEX.324A
Filing Date: Herewith Page 1

ASSIGNMENT

WHEREAS, We, Ravinder K. Aggarwal, a India citizen, residing at 819 W. Royal Palms Drive, Gilbert, AZ 85233, Tony J. Keeton, U.S. citizen, residing at 4859 E. Harmony, Messa, AZ 85206, Matthew G. Goodman, U.S. citizen, residing at 4560 W. Dublin, Chandler, AZ 85226 have invented certain new and useful improvements in a WAFER HOLDER WITH PERIPHERAL LIFT RING for which we have executed an application for Letters Patent in the United States, on even date herewith;

AND WHEREAS, ASM America, Inc. (hereinafter "ASSIGNEE"), a Delaware Corporation, with its principal place of business at 3440 E. University Drive, Phoenix, AZ 85034-7200, desires to acquire the entire right, title, and interest in and to the said improvements and the said Application:

NOW, THEREFORE, in good and valuable consideration, the receipt of which is hereby acknowledged, we, the said inventors, do hereby acknowledge that we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under the said improvements, and the said application and all provisional applications relating thereto, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and we hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 12 day of MARCH, 2002

Ravinder K. Aggarwal

STATE OF Ar. copa ss

On March 12, 2007, before me, Brune What Noting Public personally appeared Ravinder K. Aggarwal personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is lare 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]



Notary Signature

PATENT

Application	No.:	Unknown
Filing Date:	Here	with

Client Code: ASMEX,324A

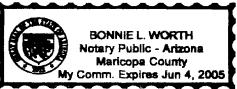
Page 2

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 1 day of MARCH, 2001	
-Jylkat-	
Tony J. Keelon	
STATE OF ALTENA COUNTY OF Mar. Co. 7-2 ss.	
COUNTY OF A CORRESPONDED SS.	
On which 1/2 200, before me, Depute With the personally appeared Matthew Goodman personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) who name(s) is/are subscribed to the within instrument, and acknowledged to me that he executed the same in his authoriz capacity(ies), and that by his signature(s) on the instrument the person(s), or the entity upon behalf of which the person acted, executed the instrument.	ec
WITNESS my hand and official seal.	
[SEAL] BONNIE L. WORTH Notary Public - Arizona	
Maricopa County IN TESTE 10 N T WINGERSOF, Pales of the Section 1 and seal this day of かってい , 2004.	
Matthew G. Goodn	
Matthew G. Goodman	
STATE OF AV, 1000 ss. COUNTY OF Mark 182	
COUNTY OF Marie 1925	

On Minimum, before me, Down E. L. Wash John personally appeared Tony J. Keeton 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(ibs), 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]



Notary Signature

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Application No.: Unknown Filing Date: Herewith

COPY Do Not Record

PATENT Client Code: ASMEX.324A Page 1

ASSIGNMENT

WHEREAS, We, Ravinder K. Aggarwal, a India citizen, residing at 819 W. Royal Palms Drive, Gilbert, AZ 85233, Tony J. Keeton, U.S. citizen, residing at 4859 E. Harmony, Messa, AZ 85206, Matthew G. Goodman, U.S. citizen, residing at 4560 W. Dublin, Chandler, AZ 85226 have invented certain new and useful improvements in a WAFER HOLDER WITH PERIPHERAL LIFT RING for which we have executed an application for Letters Patent in the United States, on even date herewith;

AND WHEREAS, ASM America, Inc. (hereinafter "ASSIGNEE"), a Delaware Corporation, with its principal place of business at 3440 E. University Drive, Phoenix, AZ 85034-7200, desires to acquire the entire right, title, and interest in and to the said improvements and the said Application:

NOW, THEREFORE, in good and valuable consideration, the receipt of which is hereby acknowledged, we, the said inventors, do hereby acknowledge that we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under the said improvements, and the said application and all provisional applications relating thereto, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and we hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 12th day of MARCH, 2002

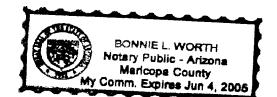
Ravınder K. Aggarwal

STATE OF Ar. COP2 } ss.

On March 12, 2007, before me, Bennie What Noting Public personally appeared Ravinder K. Aggarwal 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]



Notary Signature

Application No.: Unknown Filing Date: Herewith

COPY Do Not Record

PATENT Client Code: ASMEX.324A

Page 2

IN TESTIMONY WHEREOF, I hereunto set my hand an	d seal this it day of MARCH, 2001
	In IV - X
Tor	ny J. Keelon
COUNTY OF Plan Copa ss.	
COUNTY OF Plane Copa	
On which it was a before me, is a super the base of solutions of solutions of the base of solutions of solutions of the base of solutions of the b	edged to me that he executed the same in his authorized
WITNESS my hand and official seal.) ×
BONNIE L. WORTH Notary Public - Arizona Maricopa County IN TESTA 10NT WINDERDOF PARAMINE Se 2005 and an	d seal this day of march, 20e_3.
Mar.	Matthew G. Goods
STATE OF AV. 2070 P. ss.	
on Mark (1200), before me, before to me on the basis of satisface ubscribed to the within instrument, and acknowledged to me that hat by his signature(s) on the instrument the person(s), or the entinstrument.	ctory evidence) to be the person(s) whose name(s) is/are- he executed the same in his authorized capacity(ies), and
WITNESS my hand and official seal.	
Notary Public - Arizona Maricopa County My Comm. Expires Jun 4, 2005	Donnie X Johnson
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> PATENT REEL: 012716 FRAME: 0696

RECORDED: 03/15/2002