

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>HARI KISHORE AMBAL</td> <td>05/25/2011</td> </tr> <tr> <td>UWE PAUL HALLER</td> <td>05/25/2011</td> </tr> <tr> <td>JIANHUA ZHOU</td> <td>05/26/2011</td> </tr> </tbody> </table>		Name	Execution Date	HARI KISHORE AMBAL	05/25/2011	UWE PAUL HALLER	05/25/2011	JIANHUA ZHOU	05/26/2011		
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<table border="1"> <tr> <td>Name:</td> <td>Applied Materials, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>3050 Bowers Avenue</td> </tr> <tr> <td>City:</td> <td>Santa Clara</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>95054</td> </tr> </table>		Name:	Applied Materials, Inc.	Street Address:	3050 Bowers Avenue	City:	Santa Clara	State/Country:	CALIFORNIA	Postal Code:	95054
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PROPERTY NUMBERS Total: 1											
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CORRESPONDENCE DATA											
Fax Number: 7329357122 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 732-935-7100 Email: lzaveta@mtiplaw.com Correspondent Name: MOSER TABOADA/Alan Taboada Address Line 1: 1030 Broad Street Address Line 2: Suite 203 Address Line 4: Shrewsbury, NEW JERSEY 07702											
ATTORNEY DOCKET NUMBER:	15547C01/FEG/SYNX										
NAME OF SUBMITTER:	Alan Taboada										
Signature:	/Alan Taboada/										

Date:

06/13/2013

Total Attachments: 2

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ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
of Inventors:

- 1) **KISHORE
HARI KIRSHORE AMBAL**
955 Lakeshire Court
San Jose, CA 95126
- 2) **UWE PAUL HALLER**
367 Kylemore Ct.
San Jose, CA 95136
- 3) **JIANHUA ZHOU**
1395 Saratoga Ave., Apt. #25
San Jose, CA 95129

(hereinafter referred to as Assignors), have invented a certain invention entitled:

METHODS AND APPARATUS FOR CONTROLLING TEMPERATURE OF A MULTI-ZONE HEATER IN A PROCESS CHAMBER

for which we have filed an application for a Patent of the United States on May 20, 2011,
Serial No.13/113,015; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for

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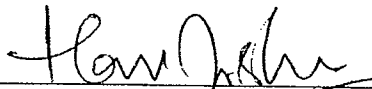
prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

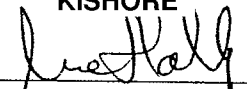
4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.


1) 05/25/11 (Date)


HARI KIRSHORE AMBAL
KISHORE

2) 05/25/11 (Date)


UWE PAUL HALLER

3) 5/26/11 (Date)


JIANHUA ZHOU