To the Honorable Commissioner of Patents and Trademarks: Please record the attached original document or copy thereof.

1. Name of conveying party(ies):  
   Quanyuan Shang  
   Janine Kardokus  
   Akihiro Hosokawa  
   Date: December 18, 2001  
   Additional name(s) of conveying party(ies) attached?  __ Yes  X No

2. Name and address of receiving party(ies):  
   Name: Applied Materials, Inc.  
   Internal Address: P.O. Box 450-A  
   Street Address:  
   City: Santa Clara  
   State: CA  
   Zip: 95052  
   Additional name(s) & address(es) attached?  __ Yes  X No

3. Nature of conveyance:  
   X Assignment  
   __ Merger  
   __ Security Agreement  
   __ Change of Name  
   __ Other  
   Execution Date: SEE ABOVE

4. Application number(s) or patent number(s):  
   If this document is being filed together with a new application, the execution date of the application is: July 6, 2004 (Date of Filing)  
   A. Patent Application No(s)  
   B. Patent No(s)  
   Additional numbers attached?  __ Yes  X No

5. Name and address of party to whom correspondence concerning document should be mailed:  
   Name: Patent Counsel  
   Internal Address: APPLIED MATERIALS, INC.  
   Street Address: P.O. Box 450-A  
   City: Santa Clara  
   State: CA  
   Zip: 95052

6. Total number of applications and patents involved:  1

7. Total fee (37 C.F.R. 3.41) $ 40.00  
   __ Enclosed  
   X Authorized to be charged to deposit account

8. Deposit account number:  
   20-0782/5163D1/DISPLAY/AKT/RKK

   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.  
   Ya-Fen Chen, Reg No.: 51,553  
   Name of Person Signing  
   Signature  
   Date: 7/6/04

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

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

PATENT  
REEL: 015555 FRAME: 0093
ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

<table>
<thead>
<tr>
<th></th>
<th>QUANYUAN SHANG</th>
<th>JANINE KARDOKUS</th>
</tr>
</thead>
<tbody>
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<td>21040 Canyon View Dr.</td>
<td>2768 Summerheights Dr.</td>
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<td>San Jose, CA 95123</td>
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<td>AKIHIRO HOSOKAWA</td>
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<td></td>
<td>10264 Danube Dr.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cupertino, CA 95014</td>
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</tr>
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(hereinafter referred to as Assignors), have invented a certain invention entitled:

CHAMBER FOR UNIFORM SUBSTRATE HEATING

enclosed herewith or for which application for Letters Patent in the United States was filed on «FilingDate», under Serial No. «SerialNo», executed on even date herewith; 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 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) 12/18, 2001  QUANYUAN SHANG
2) 12/18, 2001  JANINE KARDOKUS
3) 12/17, 2001  A. HOSOKAWA