TO: The Commissioner of Patents and Trademarks. Please record the attached original document(s) or copy(ies).

**Submission Type**

- [X] New
- [ ] Resubmission (Non-Recordation)
- [ ] Document ID#
- [ ] Correction of PTO Error
  - Reel #
  - Frame #
- [ ] Corrective Document
  - Reel #
  - Frame #

**Conveyance Type**

- [X] Assignment
- [ ] Security Agreement
- [ ] License
- [ ] Change of Name
- [ ] Merger
- [ ] Other

**Conveying Party(ies)**

<table>
<thead>
<tr>
<th>Name (line 1)</th>
<th>ETEC SYSTEMS, INC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name (line 2)</td>
<td></td>
</tr>
</tbody>
</table>

**Second Party**

<table>
<thead>
<tr>
<th>Name (line 1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name (line 2)</td>
<td></td>
</tr>
</tbody>
</table>

**Receiving Party**

<table>
<thead>
<tr>
<th>Name (line 1)</th>
<th>APPLIED MATERIALS, INC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name (line 2)</td>
<td></td>
</tr>
<tr>
<td>Address (line 1)</td>
<td>2881 Scott Blvd.</td>
</tr>
<tr>
<td>Address (line 2)</td>
<td>M/S 2061</td>
</tr>
<tr>
<td>Address (line 3)</td>
<td>Santa Clara CA U.S.A. 95050</td>
</tr>
</tbody>
</table>

**Domestic Representative Name and Address**

Enter for the first Receiving Party only.

<table>
<thead>
<tr>
<th>Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address (line 1)</td>
<td></td>
</tr>
<tr>
<td>Address (line 2)</td>
<td></td>
</tr>
<tr>
<td>Address (line 3)</td>
<td></td>
</tr>
<tr>
<td>Address (line 4)</td>
<td></td>
</tr>
</tbody>
</table>

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231 on 24 Jan 2001.

By: Vladimir Skliba

**FOR OFFICE USE ONLY**

07/10/2001 DBYANE 00000039 09305975 01 FC:581 40.00 DP
Correspondent Name and Address

Name: APPLIED MATERIALS, INC.
Address (line 1): Attn: Patent Group
Address (line 2): 2881 Scott Blvd., M/S 2061
Address (line 3): 
Address (line 4): Santa Clara, CA 95050

Pages
Enter total number of pages of the attached conveyance document including any attachments.
# 2

Application Number(s) or Patent Number(s)

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

<table>
<thead>
<tr>
<th>Patent Application Number(s)</th>
<th>Patent Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>09305975</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mark if additional numbers attached

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

Patent Cooperation Treaty (PCT)
Enter PCT application number only if a U.S. Application Number has not been assigned.

<table>
<thead>
<tr>
<th>PCT</th>
<th>PCT</th>
<th>PCT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number of Properties
Enter the total number of properties involved.
# 1

Fee Amount
Fee Amount for Properties Listed (37 CFR 3.41):
$ 40.00

Method of Payment: Enclosed [X] Deposit Account [ ]
(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:
# 03-3117

Authorization to charge additional fees: Yes [X] No [ ]

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. Charges to deposit account are authorized, as indicated herein.

William S. Galliani (Reg. # 33,885)
Name of Person Signing
Signature

Date

Rev 3/14/01

PATENT
REEL: 011953 FRAME: 0454
PATENT ASSIGNMENT

WHEREAS, ETEC SYSTEMS, INC., having offices in Hayward, California, U.S.A. (hereinafter referred to as “Assignor”) owns right, title, and interest in U.S. Patent Serial Number 09/305,975, filed on 05 May 1999, entitled INTEGRATED MICROCOLUMN AND SCANNING PROBE MICROSCOPE ARRAYS (hereinafter referred to as “Patent Application”); and

WHEREAS, APPLIED MATERIALS, INC., having offices in Santa Clara, California, U.S.A. (hereinafter referred to as “Assignee”) desires to acquire Assignor’s entire right, title, and interest in and to said Patent Application, and in and to the inventions disclosed in said Patent Application, and to the Future Patents (as hereinafter defined).

NOW THEREFORE, for and in consideration of One Dollar ($1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, Assignor’s full right, title, and interests in and to said Patent Application, and to all future patents which may be granted therefor throughout the world, and all division, reissues, substitutions, continuations, continuations-in-part and extensions thereof (collectively, “Future Patents”), together with all claims, causes of action and damages for past infringement, if any, of said Patent Application and Future Patents; and Assignor hereby authorizes and requests the United States Patent and Trademark Office and other patent offices throughout the world to issue all Future Patents resulting therefrom insofar as Assignor’s interest is concerned, to the said Assignee of Assignor’s entire right, title and interest.

Assignor also hereby sells and assigns to Assignee, its successors, assigns and legal representatives Assignor’s full right, title, and interest to inventions disclosed in said Patent Application and Future Patents throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said inventions in Assignee’s own name throughout the world including all rights of priority, all rights to publish cautionary notices reserving ownership of said inventions and all rights to register said inventions in appropriate registries; and Assignor further agrees to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith reasonably necessary to perfect such right, title, and interest in Assignee, its successors, assigns and legal representatives.

Assignor hereby further agrees that Assignor will communicate to said Assignee, or to its successors, assigns and legal representatives, any facts known to Assignor respecting any improvements, and, at the expense of said Assignee, will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, make all lawful oaths, and generally do everything possible to vest title in said Assignee and to aid said Assignee, its successors, assigns and legal representatives in obtaining and enforcing proper protection for said Patent Application and Future Patents in such countries as Assignee may elect.

IN WITNESS WHEREOF, Assignor has caused this instrument to be executed effective June 15, 2001.

ETEC SYSTEMS, INC.

By:  

Name and Title: Saul E. Arnold, Assistant Secretary
State of: California
County of: Alameda

The preceding Assignment was acknowledged before me this 15th day of June 2001 by Saul E. Arnold.

Notary Public

My Commission Expires:

[Stamp with notary details]