


FORM PTO-1595 (modified) (Rev 5-93)	<b>RECORDATION FORM COVER SHEET</b> <b>PATENTS ONLY</b>	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office								
To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copies thereof.										
1. Name of conveying party(ies):  <b>Yu-Chong Tai (08/18/05)</b> <b>Jun Xie (08/12/05)</b> <b>Chi-yuan Shih (08/09/05)</b> <b>Qing He (08/14/05)</b>  Additional conveying party(ies) <b>NO</b>	2. Name and address of receiving party(ies):  <b>California Institute of Technology</b> <b>1200 East California Blvd.</b> <b>Mail Code 210-85</b> <b>Pasadena, CA 91125</b>  Additional name(s) & address(es) attached? <b>NO</b>									
3. Nature of conveyance: <b>ASSIGNMENT</b>  Execution Date:	4. Application number(s) or patent number(s):  If this is being filed together with a new application, the execution date of the application is:  <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">           A. Patent Application Number(s):   <b>11/059,625</b> </td> <td style="width: 50%; vertical-align: top;">           B. Patent Number(s):             Additional numbers attached? <b>NO</b> </td> </tr> </table>		A. Patent Application Number(s):  <b>11/059,625</b>	B. Patent Number(s):  Additional numbers attached? <b>NO</b>						
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5. Name and address of party to whom correspondence concerning document should be faxed:  <b>Steven Rutt</b> <b>FOLEY &amp; LARDNER LLP</b> <b>Washington Harbour</b> <b>3000 K Street, N.W., Suite 500</b> <b>Washington, D.C. 20007-5143</b> <b>Fax: 202-672-5399</b>	<table style="width: 100%;"> <tr> <td style="width: 50%;">6. Total number of applications/patents involved:</td> <td style="width: 50%; text-align: right;"><b>1</b></td> </tr> <tr> <td colspan="2">7. Total fee (37 C.F.R. § 3.41): <b>\$40.00</b></td> </tr> <tr> <td colspan="2"> <input type="checkbox"/> Check Enclosed  <input checked="" type="checkbox"/> Charge to deposit account         </td> </tr> <tr> <td>8. Deposit account number:</td> <td style="text-align: right;"><b>19-0741</b></td> </tr> </table>		6. Total number of applications/patents involved:	<b>1</b>	7. Total fee (37 C.F.R. § 3.41): <b>\$40.00</b>		<input type="checkbox"/> Check Enclosed <input checked="" type="checkbox"/> Charge to deposit account		8. Deposit account number:	<b>19-0741</b>
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<b>DO NOT USE THIS SPACE</b>										
9. Statement and signature: <i>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. The Commissioner is hereby authorized to charge any additional recordation fees which may be required in this matter to the above-identified deposit account.</i>										
<b>Steven Rutt</b>  Name of person signing	 Signature	<b>August 26, 2005</b> Date								
Total number of pages including cover sheet, attachments, and document: <b>5</b>										

CH \$40.00 190741 11059625

Atty. Dkt. No. 049411-0305

**ASSIGNMENT - WORLDWIDE**

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

California Institute of Technology  
1200 East California Blvd.  
Mail Code 210-85  
Pasadena, CA 91125

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

**ON-CHIP TEMPERATURE CONTROLLED LIQUID CHROMATOGRAPHY  
METHODS AND DEVICES**

as set forth in this United States Patent Application

*check one*     ☐ executed concurrently herewith,  
                  ☐ executed on \_\_\_\_\_,  
                  ☒ Serial No. 11/059,625 Filed 02/17/2005

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, including U.S. Provisional Application Serial No.: 60/545,727, filed February 17, 2004, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

**PATENT****REEL: 016672 FRAME: 0238**

Atty. Dkt. No. 049411-0305

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **Foley & Lardner LLP** the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of **Foley & Lardner LLP** do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

PATENT

REEL: 016672 FRAME: 0239



Atty. Dkt. No. 049411-0305

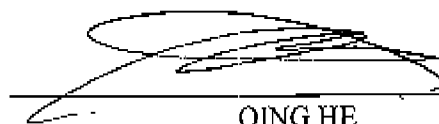
On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, a notary public in and for said county, appeared CHI-YUAN SHIH, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he/she acknowledged that he/she signed, sealed, and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

\_\_\_\_\_  
Notary Public

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

(Seal)

Executed this 14<sup>th</sup> day of August, 2005.


\_\_\_\_\_  
QING HE

State of \_\_\_\_\_)

)ss.

County of \_\_\_\_\_)

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, a notary public in and for said county, appeared QING HE, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he/she acknowledged that he/she signed, sealed, and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

\_\_\_\_\_  
Notary Public

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

(Seal)