

10-15-2003
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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):
Thomas G. Thundat, Rubye H. Farahi, Thomas L. Ferrell and Zhiyu Hu
Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)
Name: UT-Battelle, LLC
Internal Address: P O Box 2008
MS 6498
Street Address: 111B Union Valley Road
City: Oak Ridge State: TN Zip: 37831
Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other _____
Execution Date: _____

4. Application number(s) or patent number(s): 101673714
If this document is being filed together with a new application, the execution date of the application is: 9/22/2003
A. Patent Application No.(s) _____
B. Patent No.(s) _____
Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:
Name: James M. Spicer
Internal Address: UT-Battelle, LLC
P. O. Box 2008
MS 6498
Street Address: 111B Union Valley Road
City: Oak Ridge State: TN Zip: 37831

6. Total number of applications and patents involved: 1
7. Total fee (37 CFR 3.41).....\$ 40.00
 Enclosed
 Authorized to be charged to deposit account

8. Deposit account number:
13-1958

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9. Signature.
James M. Spicer
Name of Person Signing
James M. Spicer
Signature
September 27, 2003
Date

Total number of pages including cover sheet, attachments, and documents: 5

ASSIGNMENT

WHEREAS, we the below-named inventors whose residence and post office are as stated below, have invented certain new and useful improvements in an

Multi-Purpose Multi-Function Surface-Tension Microfluidic Manipulator

(hereinafter referred to as "Subject Invention") for which an application for United States Letters Patent was executed by us on even date herewith, and

WHEREAS, UT-BATTELLE, LLC, a limited liability company of the State of Tennessee, having an office at 111-B Union Valley Road, P. O. Box 2008, Oak Ridge, Tennessee 37831-6498, hereinafter referred to as "ASSIGNEE," is desirous of acquiring the entire right, title and interest of the undersigned in the Subject Invention and to any Letters Patent that may be granted therefor in the United States of America and in any and all foreign countries.

NOW, THEREFORE, in accordance with the terms of our employment agreement with ASSIGNEE and for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign to ASSIGNEE our entire right, title and interest in the Subject Invention to all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, and in any Letters Patent on the Subject Invention that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent that are divisions, reissues, continuations, substitutions or extensions of any Letters Patent or applications therefor on the Subject Invention.

We hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of any and all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

Further, we hereby agree to communicate to said ASSIGNEE or its representatives any facts known to us respecting said Subject Invention, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, to execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, and to make all rightful oaths and generally do everything possible to aid said ASSIGNEE and its representatives to obtain and enforce proper protection for said Subject Invention in the United States of America and in any and all foreign countries.

We further agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on us, our heirs, legal representatives, and assigns.

Full name of inventor: Thomas G. Thundat

Signature: *Thomas G. Thundat* Date: Sept. 22, 2003

Residence: Knoxville, Tennessee

Post Office Address: 616 Plainfield Road, Knoxville, Tennessee 37923

State of Tennessee)
County of Roane)

On this 22 day of September, 2003, before me, a Notary Public in and for the County and State aforesaid, appeared Thomas G. Thundat to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

James M. Spicer
Notary Public

SEAL
My Commission Expires: August 16, 2004

Full name of inventor: Rubye H. Farahi

Signature: Rubye H. Farahi Date: Sept. 22, 2003

Residence: Oak Ridge, Tennessee

Post Office Address: 104 Briarwood Drive, Oak Ridge, Tennessee 37830

State of Tennessee)
County of Roane)

On this 22 day of September, 2003, before me, a Notary Public in and for the County and State aforesaid, appeared Rubye H. Farahi to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

James M. Spicer
Notary Public

SEAL
My Commission Expires: August 16, 2004

Full name of inventor: Thomas L. Ferrell

Signature: *Thomas L. Ferrell* Date: *Sept. 22, 2003*

Residence: Knoxville, Tennessee

Post Office Address: 1100 Hickory Trail, Knoxville, Tennessee 37932

State of Tennessee)
County of *Roane*)

On this *22* day of *September*, *2003*, before me, a Notary Public in and for the County and State aforesaid, appeared Thomas L. Ferrell to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

James M. Spicer
Notary Public

SEAL
My Commission Expires: *August 16, 2004*

Full name of inventor: Zhiyu Hu

Signature: [Handwritten Signature] Date: 9/22/2003

Residence: Knoxville, Tennessee

Post Office Address: 1611 Laurel Ave., Apt. 1015, Knoxville, Tennessee 37916

State of Tennessee)
County of Roane)

On this 22 day of September, 2003, before me, a Notary Public in and for the County and State aforesaid, appeared Zhiyu Hu to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

[Handwritten Signature: James M. Spicer]
Notary Public

SEAL
My Commission Expires: August 16, 2004