

05-20-2003

Form PTO-1595 (Rev. 10/02)

RI



U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office

OMB No. 0651-0027 (exp. 6/30/2005)

102452527

Tab settings

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

1. Name of conveying party(ies): Jie Liu; Kenneth A. Smith; Ting Guo; Pavel Nikolaev; Andreas Thess; Daniel T. Colbert; Hongjie Dai; Jason H. Hafner; Andrew G. Rinzler; and Richard E. Smalley

5.16.03

2. Name and address of receiving party(ies) Name: William Marsh Rice University Internal Address: 6100 Main Street

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other

Street Address: 6100 Main Street

City: Houston State: TX Zip: 77005

Execution Date: 2/21/03; 4/4/03; 4/7/03; 2/21/03; 2/26/03; 2/25/03; 2/27/03; 3/6/03; 4/16/03; and 2/20/03

Additional name(s) & address(es) attached? Yes No

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:

A. Patent Application No.(s) 10/000,746; 10/028,231 10/027,671; 10/038,204; 10/027,753; 10/027,670; 10/027,750; 10/027,726; 10/027,628

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Ross Spencer Garsson Internal Address: Winstead Sechrest & Minick P.C

6. Total number of applications and patents involved: 11

7. Total fee (37 CFR 3.41): \$ 440.00

[X] Enclosed [] Authorized to be charged to deposit account

Street Address: P.O. Box 50784 1201 Main Street

8. Deposit account number: 23-2426 (11321-P011WUC1)

City: Dallas State: TX Zip: 75250-0784

DO NOT USE THIS SPACE

9. Signature Ross Spencer Garsson

Ross Spencer Garsson

Name of Person Signing

Signature

Signature

FRANCE SECTION 1/14/05

Total number of pages including cover sheet, attachments, and documents: 42

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

PATENT REEL: 014070 FRAME: 0372

15/19/2003 FC:8021

440.00 DP

Continuation of Recordation Form Cover Sheet (Form PTO-1595)

4. Application number(s) or patent number(s):

A. Patent Application No.(s):

10/027,668; and 10/027,568

AUSTIN_1\214865\1
11321-P011WUC1 05/09/2003

ASSIGNMENT

WHEREAS, the undersigned inventor(s), hereinafter called the "Assignor", has invented a new and useful invention entitled:

MACROSCOPICALLY MANIPULATE NANOSCALE DEVICES MADE FROM NANOTUBE ASSEMBLIES

_____ for which reference a full description is here made in an application for Letters Patent of the United States filed herewith.

X for which reference a full description is here made in an application for the United States Patent Application Serial No. 10/000,746 (Attorney Docket No. 11321-P011WUC1), filed on November 30, 2001, which application claims priority as follows:

| Application: | Continuity Type: | Parent Application: | Parent Filing Date: |
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| 10/000,746 | Continuation | United States National Phase | September 13, 1999 |
| 09/242,040 | United States National Phase | PCT Application | August 8, 1997 |
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WHEREAS, the "Assignor", has invented other new and useful inventions that were disclosed in United States Patent Application Serial No. 10/000,746, for which the following divisionals of United States Patent Application Serial No. 10/000,746 have been filed:

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WHEREAS, in addition to the entering in the national phase in the United States, the International Patent Application Serial No. PCT/US97/13896 has entered into foreign national phases in the following countries:

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| 97938159.7 | 11321-P011WOEP | EC |
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WHEREAS, collectively, all of the above-referenced patent applications are the "Applications."

WHEREAS, William Marsh Rice University, a University having a principal office and place of business at 6100 Main Street, Houston, Texas 77005, hereinafter called the "Assignee", is desirous of acquiring the entire right, title and interest in and to said inventions, the Applications above identified, and in, to and under Letters Patent which may be obtained for said inventions, as hereinafter more fully set forth;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for valuable and legally sufficient consideration, the receipt of which by the Assignor from the Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in and to the inventions and the Applications hereinabove identified, and all Letters Patent that may issue for the said inventions, and all divisions, reissues, substitutions, continuations, and extensions thereof, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns to the full end of the term for which any and all of said Letters Patent for the said inventions may issue.

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a resident of Houston, Texas

Dated: 2/25/03



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a resident of Sunnyvale, California

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WHEREAS, William Marsh Rice University, a University having a principal office and place of business at 6100 Main Street, Houston, Texas 77005, hereinafter called the "Assignee", is desirous of acquiring the entire right, title and interest in and to said inventions, the Applications above identified, and in, to and under Letters Patent which may be obtained for said inventions, as hereinafter more fully set forth;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for valuable and legally sufficient consideration, the receipt of which by the Assignor from the Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in and to the inventions and the Applications hereinabove identified, and all Letters Patent that may issue for the said inventions, and all divisions, reissues, substitutions, continuations, and extensions thereof, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns to the full end of the term for which any and all of said Letters Patent for the said inventions may issue.

FURTHER, be it known that the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee, its successors and assigns, the entire foreign rights to the inventions disclosed in the Applications, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, and of the European Patent Convention, and further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

And the Assignor does hereby covenant and agree, for himself/herself and his/her legal representatives, that they will assist the Assignee in the prosecution of the Applications herein identified; in the making and prosecution of any other applications for Letters Patent that the Assignee may elect to make covering the inventions herein identified, as hereinbefore set forth, including any application for reissue, application for reexamination, application for foreign patent rights, or any proceeding in the United States Patent and Trademark Office affecting the inventions, investing in the Assignee exclusive title in and to all such other applications and Letters Patent; and in the prosecution of any interference which may arise involving said inventions, or any application or Letters Patent herein contemplated; that they will promptly execute and deliver to the Assignee any and all additional papers and make all lawful oaths which may be requested by the Assignee to fully carry out the terms of this assignment; and

further that they will communicate to Assignee, or to its successors, assigns, and legal representatives, any facts known respecting said inventions, and at the expense of the Assignee, testify in any legal proceedings, and generally do everything possible to aid the Assignee, its successors, assigns and nominees to obtain and enforce proper patent protection for said inventions in all countries.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all Letters Patent to the Assignee in accordance with the terms of the assignment.

IN TESTIMONY WHEREOF, the Assignor has hereunto set his hands on the date indicated below.

DANIEL T. COLBERT
a resident of Houston, Texas

Dated: _____

HONGJIE DAI
a resident of Sunnyvale, California

Dated: _____

JASON H. HAFNER
a resident of Somerville, Massachusetts

Dated: _____

ANDREW G. RINZLER
a resident of Houston, Texas

Dated: _____

RICHARD E. SMALLEY
a resident of Houston, Texas

Dated: 2/20/03



AUSTIN_1\208780\1
11321-P011WUC1 02/19/2003

ASSIGNMENT

WHEREAS, the undersigned inventor(s), hereinafter called the "Assignor", has invented a new and useful invention entitled:

**MACROSCOPICALLY MANIPULATE NANOSCALE DEVICES MADE FROM
NANOTUBE ASSEMBLIES**

_____ for which reference a full description is here made in an application for Letters Patent of the United States filed herewith.

X for which reference a full description is here made in an application for the United States Patent Application Serial No. 10/000,746 (Attorney Docket No. 11321-P011WUC1), filed on November 30, 2001, which application claims priority as follows:

| Application: | Continuity Type: | Parent Application: | Parent Filing Date: |
|----------------|------------------------------|------------------------------|---------------------|
| 10/000,746 | Continuation | United States National Phase | September 13, 1999 |
| 09/242,040 | United States National Phase | PCT Application | August 8, 1997 |
| PCT/US97/13896 | PCT Application | 60/023,732 | August 8, 1996 |

WHEREAS, the "Assignor", has invented other new and useful inventions that were disclosed in United States Patent Application Serial No. 10/000,746, for which the following divisionals of United States Patent Application Serial No. 10/000,746 have been filed:

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| 10/028,231 | 11321-P011C1D1 | Divisional | December 21, 2001 |
| 10/027,671 | 11321-P011C1D2 | Divisional | December 21, 2001 |
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| 10/027,668 | 11321-P011CD10 | Divisional | December 21, 2001 |
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WHEREAS, in addition to the entering in the national phase in the United States, the International Patent Application Serial No. PCT/US97/13896 has entered into foreign national phases in the following countries:

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IN TESTIMONY WHEREOF, the Assignor has hereunto set his hands on the date indicated below.

W 02/21/03

JIE LIU
a resident of ~~Houston, Texas~~ *Chapel Hill, North Carolina*

Dated: *02/21/03*



KENNETH A. SMITH
a resident of Katy, Texas

Dated: _____

TING GUO
a resident of Davis, California

Dated: _____

PAVEL NIKOLAEV
a resident of Houston, Texas

Dated: _____

ANDREAS THESS
a resident of Martinsried, Germany

Dated: _____

ASSIGNMENT

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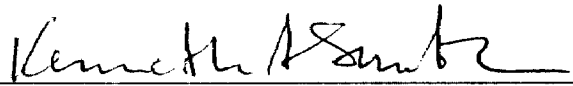
IN TESTIMONY WHEREOF, the Assignor has hereunto set his hands on the date indicated below.

JIE LIU
a resident of Houston, Texas

Dated: _____

KENNETH A. SMITH
a resident of Katy, Texas

Dated: 4.4.03



TING GUO
a resident of Davis, California

Dated: _____

PAVEL NIKOLAEV
a resident of Houston, Texas

Dated: _____

ANDREAS THESS
a resident of Martinsried, Germany

Dated: _____

AUSTIN_1\211971\1
11321-P011WUC1 04/04/2003

ASSIGNMENT

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JIE LIU
a resident of Houston, Texas

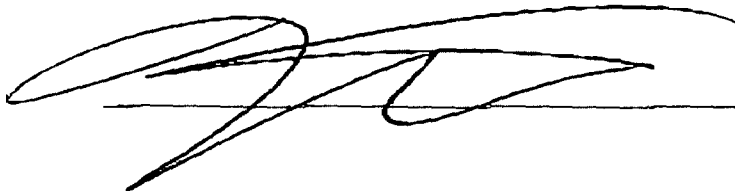
Dated: _____

KENNETH A. SMITH
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11321-P011WUC1 02/19/2003

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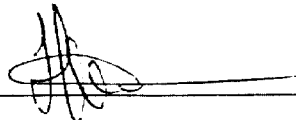
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| 10/027,671 | 11321-P011C1D2 | Divisional | December 21, 2001 |
| 10/038,204 | 11321-P011C1D3 | Divisional | December 21, 2001 |
| 10/027,753 | 11321-P011C1D4 | Divisional | December 21, 2001 |
| 10/036,684 | 11321-P011C1D5 | Divisional | December 21, 2001 |
| 10/027,670 | 11321-P011C1D6 | Divisional | December 21, 2001 |
| 10/027,750 | 11321-P011C1D7 | Divisional | December 21, 2001 |
| 10/027,726 | 11321-P011C1D8 | Divisional | December 21, 2001 |
| 10/027,628 | 11321-P011C1D9 | Divisional | December 21, 2001 |
| 10/027,668 | 11321-P011CD10 | Divisional | December 21, 2001 |
| 10/027,568 | 11321-P011CD11 | Divisional | December 21, 2001 |

WHEREAS, in addition to the entering in the national phase in the United States, the International Patent Application Serial No. PCT/US97/13896 has entered into foreign national phases in the following countries:

| Application Serial No. | Att. Docket No. | Country: |
|------------------------|-----------------|----------|
| 97938159.7 | 11321-P011WOEP | EC |
| 508225/98 | 11321-P011WOJP | Japan |

WHEREAS, collectively, all of the above-referenced patent applications are the "Applications."

WHEREAS, William Marsh Rice University, a University having a principal office and place of business at 6100 Main Street, Houston, Texas 77005, hereinafter called the "Assignee", is desirous of acquiring the entire right, title and interest in and to said inventions, the Applications above identified, and in, to and under Letters Patent which may be obtained for said inventions, as hereinafter more fully set forth;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for valuable and legally sufficient consideration, the receipt of which by the Assignor from the Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in and to the inventions and the Applications hereinabove identified, and all Letters Patent that may issue for the said inventions, and all divisions, reissues, substitutions, continuations, and extensions thereof, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns to the full end of the term for which any and all of said Letters Patent for the said inventions may issue.

FURTHER, be it known that the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee, its successors and assigns, the entire foreign rights to the inventions disclosed in the Applications, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, and of the European Patent Convention, and further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

And the Assignor does hereby covenant and agree, for himself/herself and his/her legal representatives, that they will assist the Assignee in the prosecution of the Applications herein identified; in the making and prosecution of any other applications for Letters Patent that the Assignee may elect to make covering the inventions herein identified, as hereinbefore set forth, including any application for reissue, application for reexamination, application for foreign patent rights, or any proceeding in the United States Patent and Trademark Office affecting the inventions, investing in the Assignee exclusive title in and to all such other applications and Letters Patent; and in the prosecution of any interference which may arise involving said inventions, or any application or Letters Patent herein contemplated; that they will promptly execute and deliver to the Assignee any and all additional papers and make all lawful oaths which may be requested by the Assignee to fully carry out the terms of this assignment; and

further that they will communicate to Assignee, or to its successors, assigns, and legal representatives, any facts known respecting said inventions, and at the expense of the Assignee, testify in any legal proceedings, and generally do everything possible to aid the Assignee, its successors, assigns and nominees to obtain and enforce proper patent protection for said inventions in all countries.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all Letters Patent to the Assignee in accordance with the terms of the assignment.

IN TESTIMONY WHEREOF, the Assignor has hereunto set his hands on the date indicated below.

JIE LIU
a resident of Houston, Texas

Dated: _____

KENNETH A. SMITH
a resident of Katy, Texas

Dated: _____

TING GUO
a resident of Davis, California

Dated: _____

PAVEL NIKOLAEV
a resident of Houston, Texas

Dated: _____

ANDREAS THESS
a resident of ~~Martinsried~~, Germany

Kusterdingen

02/26/2003

AT

Dated: 02/26/2003

Andreas *AT*

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11321-P011WUC1 02/19/2003