PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| Kirk J. Ziegler | 07/25/2006 |
| Urs Rauwald | 08/17/2006 |
| Robert H. Hauge | 07/27/2006 |
| Howard K. Schmidt | 07/26/2006 |
| Irene Morin Marek | 08/06/2006 |
| Zhenning Gu | 08/07/2006 |
| W. Carter Kittrell | 07/28/2006 |

RECEIVING PARTY DATA

| Name: | William Marsh Rice University |
|-----------------|-------------------------------|
| Street Address: | 6100 Main Street |
| City: | Houston |
| State/Country: | TEXAS |
| Postal Code: | 77005 |

PROPERTY NUMBERS Total: 2

| Property Type | Number |
|---------------------|--------------|
| Application Number: | 12299634 |
| PCT Number: | US2007068363 |

CORRESPONDENCE DATA

7136502400 Fax Number:

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Email: famini@winstead.com Correspondent Name: Farhang Amini WINSTEAD PC Address Line 1: Address Line 2: P.O. BOX 131851 Address Line 4: DALLAS, TEXAS 75313

ATTORNEY DOCKET NUMBER: 11321-P140WOUS; -P140WO

REEL: 030059 FRAME: 0173

PATENT

NAME OF SUBMITTER: Farhang Amini, Ph.D. Total Attachments: 13 source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page1.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page2.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page3.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page4.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page5.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page6.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page7.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page8.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page9.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page10.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page11.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page12.tif source=HOUSTON_1-#1268739-v1-Assignment-11321-P140V1#page13.tif

PATENT REEL: 030059 FRAME: 0174

Assignment of Invention

WHEREAS, I, Kirk J. Ziegler, 1105 Ft. Clarke Blvd., No. 212, Gainesville, FL 32606 USA; and I, Urs Rauwald, 1515 Bissonnet Street, No. 159, Houston, TX 77005 USA; and I, Robert H. Hauge, 4031 Turnberry Circle, Houston, TX 77025; and I Howard K. Schmidt, 20702 Bradford Creek Ct., Cypress, TX 77433 USA; and I, Irene Morin Marek, as legal representative for Richard E. Smalley, Deceased, 3 Stagestop Circle, Houston, TX 77024 USA; and I Zhenning Gu, 4045 Linkwood Dr., No. 223, Houston, TX 77025 USA; and I W. Carter Kittrell, 2408 N. Braeswood, No. 315, Houston, TX 77030 USA have invented certain new and useful improvements in: "BULK CUTTING OF CARBON NANOTUBES USING ELECTRON BEAM IRRADIATION" for which an application for Letters Patent was filed on May 5, 2006 under Serial Number 60/797,976;

WHEREAS, WILLIAM MARSH RICE UNIVERSITY, a university organized under the laws of Texas, having a principal office and place of business at 6100 Main Street, Houston, TX 77005 USA (hereinafter "ASSIGNEE") desires to acquire from Kirk J. Ziegler, Urs Rauwald, Robert H. Hauge, Howard K. Schmidt, Irene Morin Marek, as legal representative for Richard E. Smalley, Deceased, Zhenning Gu and W. Carter Kittrell the entire right, title and interest they have in and to said invention and in and to any Letters Patent that may be granted thereof in the United States and its territorial possessions, and any and all countries foreign to the United States of America;

NOW, THEREFORE, for valuable consideration, the receipt whereof is hereby acknowledged, I, by these presents do sell, assign and transfer unto said ASSIGNEE, all of my rights to the said invention in the United States and its territorial possessions and all countries foreign to the United States of America, and my entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof, and to any and all Letters Patent which may be granted therefor in all countries foreign to the United States.

I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and Patent Office Officials in all countries foreign to the United States to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the use and behalf of said ASSIGNEE, its

PATENT REEL: 030059 FRAME: 0175

successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.

Further, I agree that I will communicate to said ASSIGNEE or its representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions, and in all countries foreign to the United States.

The undersigned hereby grants authorized representatives of the above identified ASSIGNEE the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

| | EXECUTED AT: _ | Garresville, FL USA |
|-------|----------------|------------------------|
| Date; | 7/25/06 | (City, State/Country) |
| | | Krik J. Zjegler |
| | EXECUTED AT: _ | (City, State, Country) |
| Date: | | |
| | | Urs Rauwald |
| | EXECUTED AT: _ | |
| | | (City, State, Country) |
| Date: | | |
| | | Robert H. Hauge |

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as fully and entirely as the same would have been held by me had this Assignment and sale not

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ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said

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Trademark Office for recordation of this document.

| EXECUTED AT: | | |
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| | (City, State, Country) | |

Kirk J. Ziegler

EXECUTED AT: _____(City, State, Country)

Date: _____

Urs Rauwald

Date: 7/27/06 (City, State, Country)

| | EXECUTED AT: | Housron, Texas, Americ |
|-------|----------------|--|
| | | (City, State, Country) |
| Date: | 7/26/06 | Howell (Schaed) |
| | | Howard K. Schmidt |
| | | |
| | EXECUTED AT: _ | (City, State, Country) |
| Date: | | |
| Duic. | - | Irene Morin Marek, as legal representative for |
| | | Richard E. Smalley, Deceased |
| | EXECUTED AT: | |
| | EXECUTED AT | (City, State, Country) |
| Date: | | |
| | | Zhenning Gu |
| | EXECUTED AT: _ | Houston TX USA |
| | 1 | (City, State, Country) |
| Date: | 1/28/06 | n. Curtu Kithell |
| | / / * | W. Carter Kittrell |

Assignment of Invention

WHEREAS, I, Kirk J. Ziegler, 1105 Ft. Clarke Blvd., No. 212, Gainesville, FL 32606 USA; and I, Urs Rauwald, 1515 Bissonnet Street, No. 159, Houston, TX 77005 USA; and I, Robert H. Hauge, 4031 Turnberry Circle, Houston, TX 77025; and I Howard K. Schmidt, 20702 Bradford Creek Ct., Cypress, TX 77433 USA; and I, Irene Morin Marek, as legal representative for Richard E. Smalley, Deceased, 3 Stagestop Circle, Houston, TX 77024 USA; and I Zhenning Gu, 4045 Linkwood Dr., No. 223, Houston, TX 77025 USA; and I W. Carter Kittrell, 2408 N. Braeswood, No. 315, Houston, TX 77030 USA have invented certain new and useful improvements in: "BULK CUTTING OF CARBON NANOTUBES USING ELECTRON BEAM IRRADIATION" for which an application for Letters Patent was filed on May 5, 2006 under Serial Number 60/797,976;

WHEREAS, WILLIAM MARSH RICE UNIVERSITY, a university organized under the laws of Texas, having a principal office and place of business at 6100 Main Street, Houston, TX 77005 USA (hereinafter "ASSIGNEE") desires to acquire from Kirk J. Ziegler, Urs Rauwald, Robert H. Hauge, Howard K. Schmidt, Irene Morin Marek, as legal representative for Richard E. Smalley, Deceased, Zhenning Gu and W. Carter Kittrell the entire right, title and interest they have in and to said invention and in and to any Letters Patent that may be granted thereof in the United States and its territorial possessions, and any and all countries foreign to the United States of America;

NOW, THEREFORE, for valuable consideration, the receipt whereof is hereby acknowledged, I, by these presents do sell, assign and transfer unto said ASSIGNEE, all of my rights to the said invention in the United States and its territorial possessions and all countries foreign to the United States of America, and my entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof, and to any and all Letters Patent which may be granted therefor in all countries foreign to the United States.

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| | | (City, State, Country) | |
| Date: | | | |
| | | Kirk J. Ziegler | |
| | EXECUTED AT: | Bremen, Germany | |
| | | (City, State, Country) | |
| Date: | Aug. 17, 2006 | - U. Rauli) · | |
| | | Urs Kauwald | |
| | EXECUTED AT: | | |
| | EABCOTED AT. | (City, State, Country) | |
| Date: | | | |
| | | Robert H. Hauge | |

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| | | (City, State, Country) |
| Date: | | |
| | | Howard K. Schmidt |
| | EXECUTED AT: | |
| | · | (City, State, Country) |
| Date: | | |
| | | Irene Morin Marek, as legal representative for Richard E. Smalley, Deceased |
| | EXECUTED AT: | |
| | | (City, State, Country) |
| Date: | | |
| | | Zhenning Gu |
| | EXECUTED AT: | |
| | | (City, State, Country) |
| Date: | | |
| | | W. Carter Kittrell |

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| | - | (City, State, Country) | |
| Date: | | | |
| | | Kirk J. Ziegler | |
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| | <u> </u> | (City, State, Country) | |
| Date: | | | |
| | | Urs Rauwald | |
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| | | (City, State, Country) | - |
| Date: | | | |
| | | Robert H. Hauge | |

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| | | Howard K. Schmidt | |
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| Date: | _8/6/06_ | (City, State, Country) Irene Morin Marek, as legal representational E. Smalley, Deceased (City, State, Country) | Described ative for Great of |
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| | | W. Carter Kittrell | |

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PATENT REEL: 030059 FRAME: 0185

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| | | (City, State, Country) | |
| Date: | | | |
| | | Kirk J. Ziegler | |
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| | EXECUTED AT: | | |
| | | (City, State, Country) | |
| Date: | | | |
| | | Urs Rauwald | |
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| | EXECUTED AT: | | |
| | | (City, State, Country) | |
| Date: | | | |
| 4.04.04 | | Robert H. Hauge | |

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| | | (City, State, Country) |
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| | | Howard K. Schmidt |
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| | | Irene Morin Marek, as legal representative for Richard E. Smalley, Deceased |
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| | | W. Carter Kittrall |