

Form PTO-1595 (Rev. 07/05)
OMB No. 0651-0027 (exp. 6/30/2008)

MF2833-60

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

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

MICHAEL R. ZACHARIAH; DE-HAO TSAI; RAYMOND J. PHANEUF; TIMOTHY D. CORRIGAN; SOO H. KIM

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

2. Name and address of receiving party(ies)

Name: UNIVERSITY OF MARYLAND

Internal Address: _____

Street Address: 6200 Baltimore Avenue, Suite 300

City: College Park

State: Maryland

Country: USA Zip: 20742-9520

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

3. Nature of conveyance/Execution Date(s):

Execution Date(s) 8/20/06;5/22/06;6/18/06;8/25/06;5/23/06

- Assignment Merger
 Security Agreement Change of Name
 Joint Research Agreement
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

4. Application or patent number(s):

This document is being filed together with a new application.

A. Patent Application No.(s)
11/360,440

B. Patent No.(s)

Additional numbers attached? Yes No

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

Name: Morton J. Rosenberg

Internal Address: Rosenberg, Klein & Lee

Street Address: 3458 Ellicott Center Drive, Suite 101

City: Ellicott City

State: MD Zip: 21043

Phone Number: 410-465-6678

Fax Number: 410-461-3067

Email Address: _____

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- Authorized to be charged by credit card
 Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

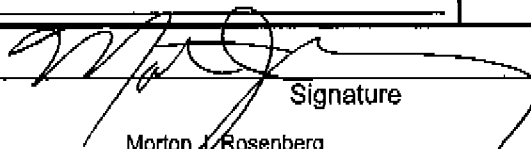
8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 18-2011

Authorized User Name _____

9. Signature:


Signature

8/31/2006

Date

Morton J. Rosenberg
Name of Person Signing

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

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, V.A. 22313-1450

ASSIGNMENT DEED

This Assignment agreement is applicable to an invention entitled (invention Title) A METHOD AND SYSTEM FOR CONTROLLABLE DEPOSITION OF NANOPARTICLES ON A SUBSTRATE

The PATENT RIGHTS referred to in this agreement are:

(Check one) a Patent Application for this invention, executed by the ASSIGNOR(s) concurrently with this Assignment

U.S. Patent Application Serial No. 11/360440, filed 24 February 2006

U.S. Patent No. _____, issued _____

The PATENT RIGHTS assigned under this agreement are:

(Check One) U.S. Patent rights only

worldwide Patent rights. In this case, the assignee shall have the right to claim the benefit of the filing date of any U.S. Patent Application identified above.

The ASSIGNOR(S) referred to in this agreement is (or are):

(Full name of sole or first inventor) MICHAEL R. ZACHARIAH

(Address) 11816 Hayfield Court, Potomac, MD 20854

(Full name of second joint inventor, if any) DE-HAO TSAI

(Address) 11413 Columbia Pike, Apt. C-2, Silver Spring, MD 20904

(Full name of third joint inventor, if any) RAYMOND J. PHANEUF

(Address) 4815 Osage Street, College Park, MD 20740

(Full name of fourth joint inventor, if any) TIMOTHY D. GORRIGAN

(Address) 13 Riverview Court, #201, Laurel, MD 20707

(Full name of fifth joint inventor, if any) SOO H. KIM

(Address) 9803 Gable Ridge Terrace, Apt. N, Rockville, MD 20850

The First ASSIGNEE referred to in this agreement is:

(Name of Assignee) UNIVERSITY OF MARYLAND

(Address of Assignee) 6200 Baltimore Avenue, Suite 300

College Park, MD 20742-9520

The Second ASSIGNEE referred to in this agreement is:

(Name of Assignee) _____

(Address of Assignee) _____

The Third ASSIGNEE referred to in this agreement is:

(Name of Assignee) _____

(Address of Assignee) _____

The Fourth ASSIGNEE referred to in this agreement is:

(Name of Assignee) _____

(Address of Assignee) _____

The Fifth ASSIGNEE referred to in this agreement is:

(Name of Assignee) _____

(Address of Assignee) _____

The Sixth ASSIGNEE referred to in this agreement is:

(Name of Assignee) _____

(Address of Assignee) _____

The Seventh ASSIGNEE referred to in this agreement is:

(Name of Assignee) _____

(Address of Assignee) _____

The Eighth ASSIGNEE referred to in this agreement is:

(Name of Assignee) _____

(Address of Assignee) _____

PATENT

REEL: 018226 FRAME: 0381

The First ASSIGNEE IS:

(Check One) an individual
 a partnership
 a Corporation of Maryland

(State or Country)

The Second ASSIGNEE is:

(Check One) an individual
 a partnership
 a Corporation of _____

(State or Country)

The Third Assignee is:

(Check One) an individual
 a partnership
 a Corporation of _____

(State or Country)

The Fourth Assignee is:

(Check One) an individual
 a partnership
 a Corporation of _____

(State or Country)

The Fifth Assignee is:

(Check One) an individual
 a partnership
 a Corporation of _____

(State or Country)

The Sixth Assignee is:

(Check One) an individual
 a partnership
 a Corporation of _____

(State or Country)

The Seventh Assignee is:

(Check One) an individual
 a partnership
 a Corporation of _____

(State or Country)

The Eighth Assignee is:

(Check One) an individual
 a partnership
 a Corporation of _____

(State or Country)

The ASSIGNOR(S), in consideration of \$1.00 paid by each ASSIGNEE, and other good and valuable consideration, receipt of which is acknowledged, have and do hereby assign the following to each ASSIGNEE; their successors and assigns:

the full and exclusive right to the invention;

an equal interest in and to the entire right, title and interest in and to the PATENT RIGHTS; and

the right to claim priority under 35 U.S.C. 119, based on any earlier foreign applications for this invention.

As to all U.S. Patent Applications assigned under this Agreement, the ASSIGNOR(S) hereby authorize(s) and requests the Commissioner of Patents and Trademarks to issue all Letters Patent to the ASSIGNEE(S) as the ASSIGNEE(S) of an equal interest in the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE(S), their successors and assigns.

Further, the ASSIGNOR(s) agree(s) to communicate to said ASSIGNEE(s), or their representatives, any facts known to the ASSIGNOR(s) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE(s), make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE(s), their successors and assigns, to obtain and enforced proper protection for said invention.

 8/20/06
 (Signature of sole or first inventor) MICHAEL R. ZACHARIAS (Date)

 (Signature of second inventor, if any) DE-HAO TSAI (Date)

 (Signature of third inventor, if any) RAYMOND J. PHANBUF (Date)

 (Signature of fourth inventor, if any) TIMOTHY D. CORRIGAN (Date)

 (Signature of fifth inventor, if any) SOO H. KIM (Date)

Further, the ASSIGNOR(s) agree(s) to communicate to said ASSIGNEE(s), or their representatives, any facts known to the ASSIGNOR(s) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE(s), make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE(s), their successors and assigns, to obtain and enforced proper protection for said invention.

(Signature of sole or first inventor) MICHAEL R. ZACHARIAN (Date)

De-Hao Tsai
(Signature of second inventor, if any) DE-HAO TSAI 05/22/2006
(Date)

(Signature of third inventor, if any) RAYMOND J. PHANEUF (Date)

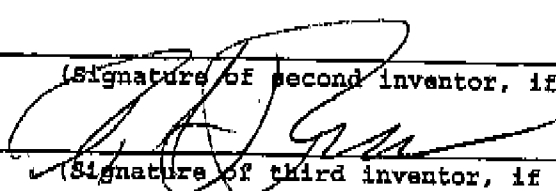
(Signature of fourth inventor, if any) TIMOTHY D. CORRIGAN (Date)

(Signature of fifth inventor, if any) SOO H. KIM (Date)

Further, the ASSIGNOR(s) agree(s) to communicate to said ASSIGNEE(s), or their representatives, any facts known to the ASSIGNOR(s) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE(s), make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE(s), their successors and assigns, to obtain and enforced proper protection for said invention.

(Signature of sole or first inventor) MICHAEL R. ZACHARIAN (Date)

(Signature of second inventor, if any) DE-HAO TSAI (Date)


(Signature of third inventor, if any) RAYMOND J. PHANEUF (Date) 6/19/06

(Signature of fourth inventor, if any) TIMOTHY D. CORRIGAN (Date)

(Signature of fifth inventor, if any) SOO H. KIM (Date)

further, the ASSIGNOR(s) agree(s) to communicate to said ASSIGNEE(s), or their representatives, any facts known to the ASSIGNOR(s) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE(s), make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE(s), their successors and assigns, to obtain and enforced proper protection for said invention.

(Signature of sole or first inventor) MICHAEL R. ZACHARIAH (Date)

(Signature of second inventor, if any) DE-HAO TSAI (Date)

(Signature of third inventor, if any) RAYMOND J. PHANEUF (Date)

Timothy D. Corrigan

(Signature of fourth inventor, if any) TIMOTHY D. CORRIGAN (Date) 8/25/06

(Signature of fifth inventor, if any) SOO H. KIM (Date)

Further, the ASSIGNOR(s) agree(s) to communicate to said ASSIGNEE(s), or their representatives, any facts known to the ASSIGNOR(s) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE(s), make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE(s), their successors and assigns, to obtain and enforced proper protection for said invention.

(Signature of sole or first inventor) MICHAEL R. ZACHARIAN (Date)

(Signature of second inventor, if any) DE-HAO TSAI (Date)

(Signature of third inventor, if any) RAYMOND J. PHANEUF (Date)

(Signature of fourth inventor, if any) TIMOTHY D. CORRIGAN (Date)

(Signature of fifth inventor, if any) SOO-H. KIM (Date) 5/23/07