

01-26-2001



Attorney Docket No. 1789-03501

FORM PTO-1595  
(Rev. 6-93) Patent and Trademark Office  
OMB No. 0651-0011 (exp. 4/94)

RECOF

101595417

U. S. DEPARTMENT OF COMMERCE

**PATENTS ONLY**

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

1. Name of conveying parties(ies):

JENNIFER L. WEST  
NANCY J. HALAS  
STEVEN J. OLDENBURG  
RICHARD D. AVERITT

Additional name(s) of conveying party(ies):

Attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies):

WM. MARSH RICE UNIVERSITY  
6100 Main Street  
Houston, Texas 77005

Additional name(s) &amp; address(es)

Attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: December 22, 2000

4. Application number(s) or patent number(s): 09/616,154

If this document is being filed together with a new application, the execution date of the application is : \_\_\_\_\_

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:

Marcella D. Watkins  
Conley, Rose & Tayon, P.C.  
P. O. Box 3267  
Houston, Texas 77253-3267

6. Total number of application 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: 03-2769

(Attach duplicate copy of this page if paying by deposit account)

**DO NOT USE THIS SPACE**

9. Statement and signature.

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

Marcella D. Watkins  
Name of Person Signing

Signature

January 4, 2001  
Date

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

01/25/2001 GTOW11 00000091 032769 09616154

01 FC:581 40.00 CH

35936.01/1789.03501

**PATENT**  
**REEL: 011447 FRAME: 0673**

## ASSIGNMENT

WHEREAS, We, JENNIFER L. WEST, NANCY J. HALAS, STEVEN J. OLDENBURG and RICHARD D. AVERITT, are joint inventors of *Metal Nanoshells for Biosensing Applications*; which is the subject of United States Letters Patent Application Serial No. 09/616,154, filed July 14, 2000, Attorney File No. 1789-03501; and

WHEREAS, WM. MARSH RICE UNIVERSITY, a university doing business at 6100 Main Street, Houston, Texas 77005, is desirous of acquiring the entire right, title and interest in and to the aforesaid invention throughout the world, and all right, title and interest in, to and under any and all Letters Patent of the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby sell, assign, transfer and set over to WM. MARSH RICE UNIVERSITY, all right, title and interest in and to the said invention throughout the world, and said application for U.S. Letters Patent, and any and all divisions, continuations, and reissues thereof, and any and all Letters Patent of the United States and foreign countries which may be granted therefor, the same to be held and enjoyed by WM. MARSH RICE UNIVERSITY for its own use and benefit, and for the use and benefit of its successors, assigns, or other legal representatives, to the end of the term or terms for which said Letters Patent of the United States or foreign countries are or may be granted or reissued, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

And we hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States on said invention or resulting from said application and from any and all divisions, continuations, and reissues thereof, to WM. MARSH RICE UNIVERSITY, as assignee of our entire interest, and hereby covenant that we have the full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith.

And we further hereby covenant and agree that we will, at any time, upon request, execute and deliver any and all papers that may be necessary or desirable to perfect the title of said invention and to such Letters Patent as may be granted therefor, to WM. MARSH RICE UNIVERSITY, its successors, assigns, or other legal representatives and that if WM. MARSH RICE UNIVERSITY, its successors, assigns or other legal representatives shall desire to file any divisional or continuation applications or to secure a reissue of such Letters Patent, or to file a disclaimer relating thereto, will upon request, sign all papers, make all rightful oaths and do all lawful acts requisite for the filing of such divisional or continuation application, or such application for reissue and the procuring thereof, and for the filing of such disclaimer, without further compensation but at the expense of said assignee, its successors, or other legal representatives.

And we do further covenant and agree that we will, at any time upon request, communicate to WM. MARSH RICE UNIVERSITY, its successors, assigns or other legal representatives, such facts relating to said invention and Letters Patent or the file history thereof

as may be known to us, and testify as to the same in any interference or other litigation when requested so to do, without further compensation but at the expense of said assignee, its successors, or other legal representatives.

EXECUTED THIS 22 day of December, 2000.

  
Jennifer L. West

STATE OF TEXAS           §  
COUNTY OF HARRIS       §

BEFORE ME, the undersigned authority, on this day personally appeared **Jennifer L. West**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

\*\*\*\*\*

EXECUTED THIS 12 day of December, 2000.

  
Nancy J. Halas

STATE OF TEXAS           §  
COUNTY OF HARRIS       §

BEFORE ME, the undersigned authority, on this day personally appeared Nancy J. Halas, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

\*\*\*\*\*

EXECUTED THIS \_\_\_ day of December, 2000.

**Signed on a Separate Sheet**

Steven J. Oldenburg

STATE OF TEXAS           §  
COUNTY OF HARRIS       §

BEFORE ME, the undersigned authority, on this day personally appeared Steven J. Oldenburg, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

\*\*\*\*\*

EXECUTED THIS \_\_\_ day of December, 2000.

**Signed on a Separate Sheet**

Richard D. Averitt

STATE OF TEXAS           §  
COUNTY OF HARRIS       §

BEFORE ME, the undersigned authority, on this day personally appeared **Richard D. Averitt**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

## ASSIGNMENT

WHEREAS, We, JENNIFER L. WEST, NANCY J. HALAS, STEVEN J. OLDENBURG and RICHARD D. AVERITT, are joint inventors of *Metal Nanoshells for Biosensing Applications*; which is the subject of United States Letters Patent Application Serial No. 09/616,154, filed July 14, 2000, Attorney File No. 1789-03501; and

WHEREAS, WM. MARSH RICE UNIVERSITY, a university doing business at 6100 Main Street, Houston, Texas 77005, is desirous of acquiring the entire right, title and interest in and to the aforesaid invention throughout the world, and all right, title and interest in, to and under any and all Letters Patent of the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby sell, assign, transfer and set over to WM. MARSH RICE UNIVERSITY, all right, title and interest in and to the said invention throughout the world, and said application for U.S. Letters Patent, and any and all divisions, continuations, and reissues thereof, and any and all Letters Patent of the United States and foreign countries which may be granted therefor, the same to be held and enjoyed by WM. MARSH RICE UNIVERSITY for its own use and benefit, and for the use and benefit of its successors, assigns, or other legal representatives, to the end of the term or terms for which said Letters Patent of the United States or foreign countries are or may be granted or reissued, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

And we hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States on said invention or resulting from said application and from any and all divisions, continuations, and reissues thereof, to WM. MARSH RICE UNIVERSITY, as assignee of our entire interest, and hereby covenant that we have the full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith.

And we further hereby covenant and agree that we will, at any time, upon request, execute and deliver any and all papers that may be necessary or desirable to perfect the title of said invention and to such Letters Patent as may be granted therefor, to WM. MARSH RICE UNIVERSITY, its successors, assigns, or other legal representatives and that if WM. MARSH RICE UNIVERSITY, its successors, assigns or other legal representatives shall desire to file any divisional or continuation applications or to secure a reissue of such Letters Patent, or to file a disclaimer relating thereto, will upon request, sign all papers, make all rightful oaths and do all lawful acts requisite for the filing of such divisional or continuation application, or such application for reissue and the procuring thereof, and for the filing of such disclaimer, without further compensation but at the expense of said assignee, its successors, or other legal representatives.

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as may be known to us, and testify as to the same in any interference or other litigation when requested so to do, without further compensation but at the expense of said assignee, its successors, or other legal representatives.

EXECUTED THIS 22 day of December, 2000.

Signed on a Separate Sheet  
Jennifer L. West

STATE OF TEXAS           §  
COUNTY OF HARRIS       §

BEFORE ME, the undersigned authority, on this day personally appeared *Jennifer L. West*, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

\*\*\*\*\*

EXECUTED THIS \_\_ day of December, 2000.

Signed on a Separate Sheet  
Nancy J. Halas

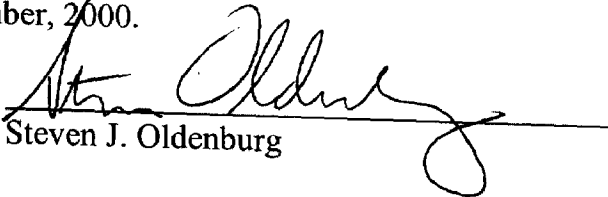
STATE OF TEXAS           §  
COUNTY OF HARRIS       §

BEFORE ME, the undersigned authority, on this day personally appeared Nancy J. Halas, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

\*\*\*\*\*  
EXECUTED THIS 21 day of December, 2000.

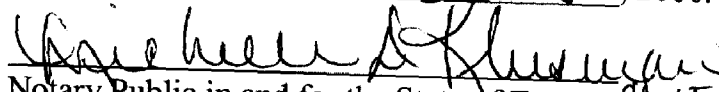
  
Steven J. Oldenburg

CALIFORNIA  
STATE OF ~~TEXAS~~ §  
COUNTY OF ~~HARRIS~~ §  
SAN DIEGO

BEFORE ME, the undersigned authority, on this day personally appeared Steven J. Oldenburg, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 21st day of DECEMBER, 2000.



  
Notary Public in and for the State of ~~Texas~~ CALIFORNIA

\*\*\*\*\*  
EXECUTED THIS \_\_\_ day of December, 2000.

Signed on a Separate Sheet  
Richard D. Averitt

STATE OF TEXAS §  
COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personally appeared **Richard D. Averitt**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

## ASSIGNMENT

WHEREAS, We, JENNIFER L. WEST, NANCY J. HALAS, STEVEN J. OLDENBURG and RICHARD D. AVERITT, are joint inventors of *Metal Nanoshells for Biosensing Applications*; which is the subject of United States Letters Patent Application Serial No. 09/616,154, filed July 14, 2000, Attorney File No. 1789-03501; and

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NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby sell, assign, transfer and set over to WM. MARSH RICE UNIVERSITY, all right, title and interest in and to the said invention throughout the world, and said application for U.S. Letters Patent, and any and all divisions, continuations, and reissues thereof, and any and all Letters Patent of the United States and foreign countries which may be granted therefor, the same to be held and enjoyed by WM. MARSH RICE UNIVERSITY for its own use and benefit, and for the use and benefit of its successors, assigns, or other legal representatives, to the end of the term or terms for which said Letters Patent of the United States or foreign countries are or may be granted or reissued, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

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as may be known to us, and testify as to the same in any interference or other litigation when requested so to do, without further compensation but at the expense of said assignee, its successors, or other legal representatives.

EXECUTED THIS \_\_\_\_ day of December, 2000.

Signed on a Separate Sheet  
Jennifer L. West

STATE OF TEXAS           §  
COUNTY OF HARRIS       §

BEFORE ME, the undersigned authority, on this day personally appeared *Jennifer L. West*, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

\*\*\*\*\*

EXECUTED THIS \_\_\_\_ day of December, 2000.

Signed on a Separate Sheet  
Nancy J. Halas

STATE OF TEXAS           §  
COUNTY OF HARRIS       §

BEFORE ME, the undersigned authority, on this day personally appeared Nancy J. Halas, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

\*\*\*\*\*

EXECUTED THIS \_\_\_ day of December, 2000.

**Signed on a Separate Sheet**

Steven J. Oldenburg

STATE OF TEXAS           §  
COUNTY OF HARRIS       §

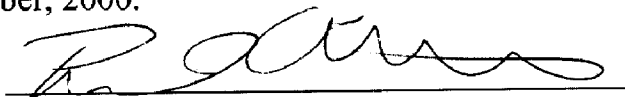
BEFORE ME, the undersigned authority, on this day personally appeared Steven J. Oldenburg, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Notary Public in and for the State of Texas

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EXECUTED THIS 22 day of December, 2000.

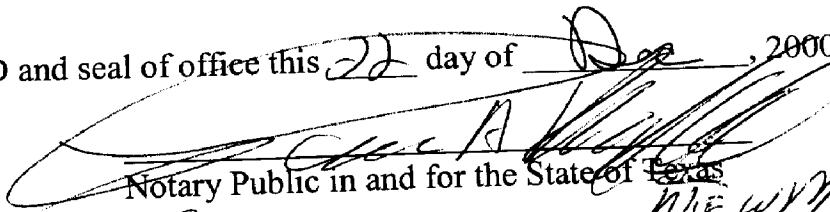


Richard D. Averitt

NEW MEYLO  
STATE OF ~~TEXAS~~           §  
COUNTY OF ~~HARRIS~~       §  
          LOS ALAMOS

BEFORE ME, the undersigned authority, on this day personally appeared **Richard D. Averitt**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 22 day of Dec, 2000.

  
Notary Public in and for the State of Texas  
Comm m  
Expn May 15 2003  
NEW MEYLO