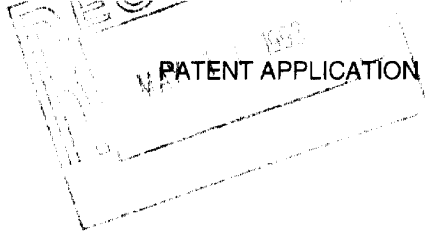


06-01-1998

National Aeronautics and
Space Administration
John F. Kennedy Space Center
Kennedy Space Center, FL 32899



100723451



MM-E

Reply to Attn of:

MRD 5-11-98

Commissioner of Patents
and Trademarks
Washington, DC 20231

MAY 08 1998

Sir:

Please record the attached original document or copy thereof.

- (1) Conveying party(ies) : Nancy E. Ruiz Date Executed: 08/11/97
Debra R. Reinhart Date Executed: 08/01/97
Cherie L. Geiger Date Executed: 08/11/97
Christian A. Clausen Date Executed: 08/01/97
Jacqueline Quinn Date Executed: 08/13/97
- (2) Receiving party : U.S. GOVERNMENT AS REPRESENTED BY THE
ADMINISTRATOR OF NATIONAL AERONAUTICS
AND SPACE ADMINISTRATION, WASHINGTON, DC
20546
- (3) Nature of conveyance : ASSIGNMENT
- (4) Application no. : KSC-11959
Serial no. : 08/904,028 Filed: 07/31/97
- (5) Return recorded document to : BETH A. VRIONI
NASA, JOHN F. KENNEDY SPACE CENTER
MAIL CODE: MM-E
KENNEDY SPACE CENTER, FL 32899
- (6) Total number of applications involved: ONE
- (7) Date(s) Document was Executed: See (1) above
- (8) Total fee (37 CFR 3.41): \$40.00
- (9) Charge to: DEPOSIT ACCOUNT NO. 14-0116
- (10) 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.

Total number of pages including cover sheet: Seven

Respectfully submitted,

Beth A. Vrioni

Beth A. Vrioni
Patent Attorney, Registration No. 39,869

Enclosure(s)

- 1. Original Assignment and one copy
- 2. Additional copy of this letter and original cover sheet

PATENT
REEL: 9195 FRAME 0726

05/29/1998 TTOM11 00000191 140116 0850403 40.00 CH 01FC:501

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
ASSIGNMENT

WHEREAS, the University of Central Florida (UCF)
(The CONTRACTOR/GRANTEE) a _____ corporation, X unincorporated (check one)
and existing under the laws of the State of Florida, and having its
principal place of business (or campus in the case of a college or
university) at College of Engineering and Chemistry, 4000 Central Florida Blvd.,
Orlando, Florida 32816
(address, city, state, zip)

the said CONTRACTOR/GRANTEE having elected NOT to retain the title under
the provisions of 35 U.S.C. § 202 to a Subject Invention made in the
performance of work under a contract/grant between the CONTRACTOR/GRANTEE
and the Government of the United States of America (the Government), the
Subject Invention being identified as:

TITLE: Enhancement of Zero-Valent Metal Treatment of Contaminated Groundwater by the Use of
Ultrasound

INVENTORS:

- (1) Nancy E. Ruiz Employer UCF
- (2) Debra R. Reinhart Employer UCF
- (3) Cherie L. Geiger Employer UCF
- (4) Christian A. Clausen Employer UCF
- (5) Jacqueline Quinn Employer NASA

This assignment is applicable to INVENTORS, (check appropriate)

X (1), X (2), X (3), X (4), _____ (5);

The said CONTRACTOR/GRANTEE being a _____ small business, X college or
university, _____ other nonprofit organization;

CONTRACTOR/GRANTEE NO. NAG10-0198 PROJECT _____

CONTRACTOR/GRANTEE CASE NO. _____

NASA Case No. KSC-11959 Application Executed _____

The undersigned inventor(s) in recognition of an obligation as
employee(s) of the CONTRACTOR/GRANTEE to assign this invention to the
CONTRACTOR/GRANTEE, and pursuant to the OBLIGATIONS OF THE
CONTRACTOR/GRANTEE to the Government under the above CONTRACT/GRANT, hereby
assign(s) to the Government of the United States of America as represented
by the Administrator of the National Aeronautics and Space Administration
(NASA), the full and exclusive right in and to the said Subject Invention
within the United States of America, its territories and possessions, and
the entire right, title and interest in and to said patent application, and
any applications continuing therefrom and such Letters Patent as may issue
therefrom.

The inventor(s) hereby covenant(s) that he/she (they) has (have) the right to grant the foregoing assignment and further agree(s) to the provisions stated below which are applicable to the inventor(s).

Further, the inventor(s) hereby assign(s) to the Government, the foreign rights in and to the said invention including rights of priority under the International Convention of Paris (1883), as amended.

<u>8/11/97</u> Date	(1)	<u>George E. Kreis</u> (Inventor)
<u>8/11/97</u> Date	(2)	<u>Subir R. Senapati</u> (Inventor)
<u>8/11/97</u> Date	(3)	<u>Chase L. Steger</u> (Inventor)
<u>8/11/97</u> Date	(4)	<u>Christian P. Clausen</u> (Inventor)
<u>8/13/97</u> Date	(5)	<u>[Signature]</u> (Inventor)

The inventor(s) and the CONTRACTOR/GRANTEE further agree to make, execute and/or deliver to the Government, upon request, but at the expense of the Government, any and all data, drawings, notes, reports, information, papers, documents, affidavits, statements or other items necessary in the prosecution of said application and of any applications continuing therefrom or applications for reissue or reexamination of said Letters Patent, or of any foreign patent or patent application, or any application continuing therefrom, and to assist the Government in every way in protecting said invention as may be requested, provided that any expense arising through such assistance will be paid by the Government.

The CONTRACTOR/GRANTEE, having elected not to retain title under the provisions of 35 U.S.C. § 202 to the Subject Invention made in the performance of work under the agreement between the CONTRACTOR/GRANTEE and NASA, hereby joins in and agrees to the foregoing assignment.

Further, the CONTRACTOR/GRANTEE relinquishes and likewise assigns all right, title and interest in and to such invention and patent application to the Government of the United States of America as represented by the Administrator of NASA. The CONTRACTOR/GRANTEE hereby covenants that it has the right to make the foregoing assignment.

Signed this 11th day of August, 1997.

SIGNED: [Signature] TITLE: Vice President for Research + Graduate Studies
Typed or Printed

NAME: Diane M. Jacobs University of Central Florida
Contractor or Grantee
(Typed or Printed)

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
 ASSIGNMENT

WHEREAS, the University of Central Florida (UCF)
 (The CONTRACTOR/GRANTEE) a _____ corporation, unincorporated (check one)
 and existing under the laws of the State of Florida, and having its
 principal place of business (or campus in the case of a college or
 university) at College of Engineering and Chemistry, 4000 Central Florida Blvd.,
Orlando, Florida 32816

(address, city, state, zip)

the said CONTRACTOR/GRANTEE having elected NOT to retain the title under
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INVENTORS:

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- (2) Debra R. Reinhart Employer UCF
- (3) Cherie L. Geiger Employer UCF
- (4) Christian A. Clausen Employer UCF
- (5) Jacqueline Quinn Employer NASA

This assignment is applicable to INVENTORS, (check appropriate)

(1), (2), (3), (4), _____ (5);

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CONTRACTOR/GRANTEE NO. NAG10-0198 PROJECT _____

CONTRACTOR/GRANTEE CASE NO. _____

NASA Case No. KSC-11959 Application Executed _____

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 employee(s) of the CONTRACTOR/GRANTEE to assign this invention to the
 CONTRACTOR/GRANTEE, and pursuant to the OBLIGATIONS OF THE
 CONTRACTOR/GRANTEE to the Government under the above CONTRACT/GRANT, hereby
 assign(s) to the Government of the United States of America as represented
 by the Administrator of the National Aeronautics and Space Administration
 (NASA), the full and exclusive right in and to the said Subject Invention
 within the United States of America, its territories and possessions, and
 the entire right, title and interest in and to said patent application, and
 any applications continuing therefrom and such Letters Patent as may issue
 therefrom.

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Further, the inventor(s) hereby assign(s) to the Government, the foreign rights in and to the said invention, including rights of priority under the International Convention of Paris (1883), as amended.

<u>8-11-97</u> Date	(1)	<u>Dancy E Ruiz</u> (Inventor)
<u>8/11/97</u> Date	(2)	<u>Mark R. Benhart</u> (Inventor)
<u>8/11/97</u> Date	(3)	<u>Cherie L. Heiger</u> (Inventor)
<u>8/11/97</u> Date	(4)	<u>Christopher A. Clauer</u> (Inventor)
<u>8/12/97</u> Date	(5)	<u>Luca D'Amico</u> (Inventor)

The inventor(s) and the CONTRACTOR/GRANTEE further agree to make, execute and/or deliver to the Government, upon request, but at the expense of the Government, any and all data, drawings, notes, reports, information, papers, documents, affidavits, statements or other items necessary in the prosecution of said application and of any applications continuing therefrom or applications for reissue or reexamination of said Letters Patent, or of any foreign patent or patent application, or any application continuing therefrom, and to assist the Government in every way in protecting said invention as may be requested, provided that any expense arising through such assistance will be paid by the Government.

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Further, the CONTRACTOR/GRANTEE relinquishes and likewise assigns all right, title and interest in and to such invention and patent application to the Government of the United States of America as represented by the Administrator of NASA. The CONTRACTOR/GRANTEE hereby covenants that it has the right to make the foregoing assignment.

Signed this 11th day of August, 1997.

SIGNED: Diane M. Jacobs TITLE: Vice President for Research + Graduate Studies
Typed or Printed

NAME: Diane M. Jacobs University of Central Florida
Contractor or Grantee
(Typed or Printed)