504084209 11/07/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT4130877

CONVEYING PARTY DATA

Name	Execution Date
LEONID GERMANOVICH	06/29/2011
LAWRENCE C. MURDOCH	06/29/2011
MARVIN ROBINOWITZ	06/29/2011

RECEIVING PARTY DATA

Name:	GRAND DIRECTIONS, LLC		
Street Address:	2448 EAST 81ST STREET, SUITE 4040		
City:	TULSA		
State/Country:	OKLAHOMA		
Postal Code:	74137		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15344243

CORRESPONDENCE DATA

Fax Number: (918)595-4990

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 918-595-4963

Email: iplaw@gablelaw.com

Correspondent Name: GABLEGOTWALS/PAUL ROSSLER

Address Line 1: 100 W 5TH ST, 10TH FLOOR Address Line 4: TULSA, OKLAHOMA 74103

ATTORNEY DOCKET NUMBER:	009665-00023
NAME OF SUBMITTER:	PAUL E. ROSSLER
SIGNATURE:	/Paul E. Rossler/
DATE SIGNED:	11/07/2016

Total Attachments: 4

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> PATENT REEL: 040240 FRAME: 0263

504084209

This assignment of invention is effective June 29, 2011, and is between Leonid Germanovich, Lawrence C. Murdoch, and Marvin Robinowitz ("the inventors," individually and collectively) and Grand Directions, LLC ("Grand Directions"), an Oklahoma Limited Liability Company.

For good and valuable consideration, each inventor agrees to the following provisions.

1. BACKGROUND

- 1.1 The inventors have invented a system and method for ABYSSAL SEQUESTRATION OF NUCLEAR WASTE AND OTHER TYPES OF HAZARDOUS WASTE ("the invention") and disclosed the invention in U.S. Pat. Appl. Ser. No. 61/502,557, filed on June 29, 2011, and in Patent Cooperation Treaty Appl. Ser. No. PCT/US12/45084, filed on June 29, 2012.
- 1.2 Grand Directions desires to obtain the entire interest in the subject matter of the invention for the United States and its territorial possessions and in all foreign countries. This interest includes but is not limited to all rights to claim priority to the invention and any improvements made to the invention and the right to file in the United States and elsewhere any patent applications on the invention and on any improvements to the invention.
- 1.3 The inventors have not entered into any prior assignment, sale, agreement or encumbrance of the invention that would conflict with the assignment to Grand Directions.
- 1.4 The inventors acknowledge the receipt of good and valuable consideration from Grand Directions in exchange for this assignment, and each represents and warrants that he has rights in the invention and the authority to assign those rights.

2. ASSIGNMENT

- 2.1 The inventors hereby assign to Grand Directions the entire interest in the invention.
- 2.2 The inventors promise to assign to Grand Directions, and hereby do assign to Grand Directions, any improvements made to the invention.
- 2.3 The inventors shall not enter into any future assignment, sale, agreement or encumbrance of the invention that would conflict with the assignment to Grand Directions.

3. PATENT PROSECUTION, MAINTENANCE, AND LITIGATION

- 3.1 The inventors must, upon request by Grand Directions or its successors and assigns, promptly provide facts and documents relating to the invention, including but not limited to instruments and affidavits required to prosecute the patent application and to issue and maintain the patent.
- 3.2 The inventors shall provide facts and testify as needed in any proceeding or litigation relating to the invention.

[SIGNATURE PAGE FOLLOWS]

{1039532;2}

Assignment of Invention Page 1 of 3

REEL: 040240 FRAME: 0264

4. SIGNATURE

By signing this assignment of invention, I understand that it provides an assignment of my entire interest in the invention and an assignment of any improvements that I might make to the invention to:

Grand Directions, LLC 2448 East 81st Suite 4040 Tulsa, Oklahoma 74137 State of Formation: Oklahoma

By:

LEONID GERMANOVICH

Georgia Institute of Technology 790 Atlantic Drive, Mason Building CEE

Atlanta, Georgia 30332

By:

LAWRENCE C. MURDOCH

Clemson University 340 Bracket Hall Clemson, South Carolina

By:

MARVIN ROBINOWITZ

2448 East 81st Suite 4040 Tulsa, Oklahoma 74137

Assignment of Invention-page 2 of 3

REEL: 040240 FRAME: 0265

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By:

LEONID GERMANOVICH

Georgia Institute of Technology 790 Atlantic Drive, Mason Building CEE Atlanta, Georgia 30332

Ву:

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Ву:

MARVIN ROBINOWITZ

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Tulsa, Oklahoma 74137

RECORDED: 11/07/2016

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