PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| Roger D. Aines | 05/18/2010 |

RECEIVING PARTY DATA

| Name: | Lawrence Livermore National Security, LLC | | |
|-----------------|---|--|--|
| Street Address: | 7000 East Avenue | | |
| City: | Livermore | | |
| State/Country: | CALIFORNIA | | |
| Postal Code: | 94551 | | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12784665 |

CORRESPONDENCE DATA

Fax Number: (925)423-2231

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

Email: masluk1@llnl.gov
Correspondent Name: Mark H. Lough
Address Line 1: 7000 East Avenue

Address Line 4: Livermore, CALIFORNIA 94551

ATTORNEY DOCKET NUMBER: | IL-12037

NAME OF SUBMITTER: Eddie E. Scott

Total Attachments: 2

source=IL_12037_Assignment_filed_5_21_2010#page1.tif source=IL_12037_Assignment_filed_5_21_2010#page2.tif

CH \$40.00

PATENT REEL: 024422 FRAME: 0370

| 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. Roger D. Aines | Name: Lawrence Livermore National Security, LLC (LLNS) | | |
| | Internal Address: P.O. Box 808, t-703 | | |
| Additional name(s) of conveying party(ies) attached? Yes X No | | | |
| 3. Nature of conveyance/Execution Date(s): Execution Date(s) 5.18.2010 | Street Address: 7000 East Avenue | | |
| Execution Date(s) 5-18-2010 Assignment Merger | | | |
| Security Agreement Change of Name | City: Livermore | | |
| Joint Research Agreement | State: CA | | |
| Government Interest Assignment | | | |
| Executive Order 9424, Confirmatory License | Country: USA Zip: 94551 | | |
| Other_ | Additional name(s) & address(es) attached? Yes No | | |
| A. Patent Application No.(s) | document is being filed together with a new application. B. Patent No.(s) | | |
| Additional numbers att | | | |
| 5. Name and address to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved: 1 (one) | | |
| Name: Mark H. Lough/LLNS | 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00 | | |
| Internal Address; P.O. Box 808, L-703 | 7. Total lee (or Os in 1.2 i(a) & o. 11) ********************************** | | |
| | X Authorized to be charged to deposit account | | |
| Street Address: 7000 East Avenue | Enclosed | | |
| | None required (government interest not affecting title) | | |
| City: Livermore | 8. Payment Information | | |
| State: CA Zip: 94551 | | | |
| Phone Number: <u>925/422-7272</u> | The Manager of Agent | | |
| Fax Number: 925/423-2231 | Deposit Account Number 12-0695 | | |
| Email Address: N/A | Authorized User Name_April Masluk | | |
| 9. Signature: Signature Signature | 5-21-2010 Date | | |
| April Masluk 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

| LLNL Case No.: IL-12037 | | | | |
|--|---------|---------------------------------|--|--|
| For good and valuable consideration the receipt of w | hich is | hereby acknowledged ASSIGNOR(s) | | |
| 1. Roger D. Aines | _ 2. | | | |
| 3. // | _ 4. | // | | |
| 5. // | 6. | // | | |
| hereby sells, assigns and transfers to ASSIGNEE, Lawrence Livermore National Security, LLC, a Delaware Corporation, having its administrative offices located at 2300 First Street, Suite 204, Livermore, CA 94550 and the successors, assigns and legal representative of the ASSIGNEE all of its right, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled: | | | | |
| | | EOUS WATER PURIFICATION AND | | |
| CARBON DIOXIDE REMOVAL FROM | GAS | MIXTURES | | |
| and which is found in | | | | |
| U.S. patent application executed on $5-18-2010$, entitled as above and listing the above named persons as inventors | | | | |
| U.S. patent application serial no. 12/784 | 665 | , filed on 5-21-2010 | | |
| \square U. S. patent no, issued | | | | |
| and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all rights under all international Conventions for the Protection of Industrial Property; | | | | |
| ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment; | | | | |
| ASSIGNOR(S) further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known. | | | | |
| AND the <u>ASSIGNOR(S)</u> requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE, Lawrence Livermore National Security, LLC. | | | | |
| executed this | | Signature of Inventor(s) | | |
| 5/18(10 Date | | Roger D'Aines | | |

-End of Document-IL-12037

RECORDED: 05/21/2010

PATENT REEL: 024422 FRAME: 0372