504517704 08/24/2017

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------|----------------|
| JIM K. KIM | 08/16/2017 |
| JOHN F. KLEM | 06/13/2017 |
| ERIC A. SHANER | 06/13/2017 |
| BENJAMIN VARBERG OLSON | 07/03/2017 |
| EMIL ANDREW KADLEC | 06/13/2017 |
| ANNA TAUKE-PEDRETTI | 06/13/2017 |
| TORBEN RAY FORTUNE | 06/13/2017 |

RECEIVING PARTY DATA

| Name: | NATIONAL TECHNOLOGY & ENGINEERING SOLUTIONS OF SANDIA, LLC |
|-----------------|--|
| Street Address: | P.O. BOX 5800, MS-0161 |
| City: | ALBUQUERQUE |
| State/Country: | NEW MEXICO |
| Postal Code: | 87185 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15479134 |

CORRESPONDENCE DATA

Fax Number: (505)844-9955

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: 505-844-7283 Email: dcates@sandia.gov

Correspondent Name: SANDIA NATIONAL LABORATORIES

Address Line 1: P.O. BOX 5800, MS-0161

Address Line 4: ALBUQUERQUE, NEW MEXICO 87185

| ATTORNEY DOCKET NUMBER: | SD13604/S139954 | |
|-------------------------|-------------------|--|
| NAME OF SUBMITTER: | DIANA SCHANNING | |
| SIGNATURE: | /Diana Schanning/ | |
| DATE SIGNED: | 08/24/2017 | |

PATENT 504517704 REEL: 043662 FRAME: 0833

Total Attachments: 6 source=SD13604_S139954_FullyExecuted_Assignments#page1.tif source=SD13604_S139954_FullyExecuted_Assignments#page2.tif source=SD13604_S139954_FullyExecuted_Assignments#page3.tif source=SD13604_S139954_FullyExecuted_Assignments#page4.tif source=SD13604_S139954_FullyExecuted_Assignments#page5.tif source=SD13604_S139954_FullyExecuted_Assignments#page6.tif

PATENT REEL: 043662 FRAME: 0834

ASSIGNMENT

WHEREAS, Jin K. Kim, John F. Klem of Albuquerque, NM, Eric A. Shaner of Rio Rancho, NM, Benjamin Varberg Olson, Emil Andrew Kadlec, Anna Tauke-Pedretti, Torben Ray Fortune, of Albuquerque, NM (hereinafter "Inventor(s)") has(have) made an invention relating to SUPERLATTICE PHOTODETECTOR HAVING IMPROVED CARRIER MOBILITY in the course of the work authorized by Contract DE-NA0003525 between NATIONAL TECHNOLOGY & ENGINEERING SOLUTIONS OF SANDIA, LLC ("NTESS") and the UNITED STATES DEPARTMENT OF ENERGY, said invention being disclosed and claimed in Application Serial No. 15/479,134 for United States patent, filed April 4, 2017 and identified as DOE Docket No: S-139954 duly executed by said inventor(s); and

WHEREAS Inventor(s), in consideration of employment by NTESS, has(have) assigned to NTESS, its successors and assigns, all of Inventor(s) rights to inventions, discoveries, or improvements made or conceived in the course of their employment; and

WHEREAS, title to the above-identified invention vests in the Government of the United States, as represented by the U.S. Department of Energy, as governed by 42 U.S.C. 5908; and

WHEREAS, the Government of the United States, as represented by the U.S. Department of Energy has granted a waiver of Government rights in the above-identified invention to NTESS; and

THEREFORE, Inventor(s) hereby sells, assigns, and transfers unto NTESS their entire right, title, and interest in and to said invention in the United States of America and all foreign countries, including, without limitation, said invention as described in the aforesaid application, and in and to any United States Letters Patent therefor, when issued together with all improvements thereon and betterments thereof, all related applications including, but not limited to, utilities, divisions, continuations, continuations-in-part, reissues and reexaminations thereof and substitutions of or for said application, and all foreign rights including the right to make application for Letters Patent for said invention in any and all foreign countries and the right to claim priority as to the filing date under the International Convention on the basis for the aforesaid application for United States Letters Patent, to the extent that Inventor(s) right, title, and interest in and to said invention has(have) not already been sold, assigned, or transferred to NTESS Corporation by Inventor(s) in consideration of Inventor(s) employment by NTESS. Inventor(s) hereby authorizes and requests the Commissioner of Patents to issue all Letters Patent issuing therefrom to NTESS, for its interest as NTESS, its successors and assigns.

Inventor(s) covenants with NTESS that, except for the rights, if any, of the Government, his/her interest in the rights and property herein conveyed is free and clear of any encumbrance and that they have full right to convey the same as herein expressed. Inventor(s) agrees, at the request of NTESS, to make, execute, and deliver to NTESS, the Government, or other party prosecuting patent applications on

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PATENT REEL: 043662 FRAME: 0835 this invention, any and all papers, documents, affidavits, applications, statements or other instruments relating to said invention, take all rightful oaths and do all acts as may reasonably be required of them in or incident to the prosecution of any or all U.S. and foreign applications on said invention or in the adjustment or settlement of any interferences or other actions or proceedings that said applications or patents thereon may encounter or in which they may become involved.

Signed at Albuquerque, New Mexico.

| | 8/15/2017 |
|--|--|
| lín K. Kim | Date |
| GL # ZL | 6/13/17 |
| ohn F. Klem | Date |
| EN MM | 6/13/17 |
| Eric A. Shaner | Date |
| | Annual management of the second of the secon |
| Benjamin Var <u>berg</u> Olson | Date |
| <i></i> | 6/13/17 |
| Emil Andrew Kadlec | Date |
| | 6/13/17 |
| inna Tauke-Pedretti | Date |
| A CONTRACTOR OF THE PROPERTY O | r La La |
| | 6/17/17 |

On the above dates, personally appeared before me, Diana Schanning, Notary Public, Jin K. Kim, John F. Klem, Eric A. Shaner, Benjamin Varberg Olson, Emil Andrew Kadlec, Anna Tauke-Pedretti, Torben Ray Fortune, to me known to be the individual(s) described in and who executed the foregoing instrument, and who acknowledged to me that they executed the same.

Cian Sching Public

COUNTY OF BERNALILLO)



Approved and consented by:

NATIONAL TECHNOLOGY & ENGINEERING SOLUTIONS OF SANDIA, LLC

Date: 4//7//7

Kerry Kampschmidt Chief IP Counsel

Legal Technology Transfer Center

STATE OF NEW MEXICO)

) ss:

COUNTY OF BERNALILLO)

On the above date, personally appeared before me, Diana Schanning, Notary Public, **Kerry Kampschmidt**, to me known to be the individual described in and who executed the foregoing instrument, and who acknowledged to me that he executed the same.

Cian Shir Notary Public



ASSIGNMENT

WHEREAS, Jin K. Kim, John F. Klem of Albuquerque, NM, Eric A. Shaner of Rio Rancho, NM, Benjamin Varberg Olson, Emil Andrew Kadler, Anna Tauke-Pedretti, Torben Ray Fortune, of Albuquerque, NM (hereinafter "Inventor(s)") has(have) made an invention relating to SUPERLATTICE PHOTODETECTOR HAVING IMPROVED CARRIER MOBILITY in the course of the work authorized by Contract DE-NAGO03525 between NATIONAL TECHNOLOGY & ENGINEERING SOLUTIONS OF SANDIA, LLC ("NTESS") and the UNITED STATES DEPARTMENT OF ENERGY, said invention being disclosed and claimed in Application Serial No. 15/479,134 for United States patent, filed April 4, 2017 and identified as DOE Docket No. 8-139954 duly executed by said inventor(s); and

WHEREAS Inventor(s), in consideration of employment by NTESS, has(have) assigned to NTESS, its successors and assigns, all of Inventor(s) rights to inventions, discoveries, or improvements made or conceived in the course of their employment; and

WHEREAS, title to the above-identified invention vests in the Government of the United States, as represented by the U.S. Department of Energy, as governed by 42 U.S.C. 5908; and

WHEREAS, the Government of the United States, as represented by the U.S. Department of Energy has granted a waiver of Government rights in the above-identified invention to NTESS; and

THEREPORE, Inventor(s) hereby sells, assigns, and transfers unto NTESS their entire right, title, and interest in and to said invention in the United States of America and all foreign countries, including, without limitation, said invention as described in the aforesaid application, and in and to any United States Letters Patent therefor, when issued together with all improvements thereon and betterments thereof, all related applications including, but not limited to, utilities, divisions, continuations, continuations-in-part, reissues and reexaminations thereof and substitutions of or for said application, and all foreign rights including the right to make application for Letters Patent for said invention in any and all foreign countries and the right to claim priority as to the filing date under the International Convention on the basis for the aforesaid application for United States Letters Patent, to the extent that Inventor(s) right, title, and interest in and to said invention has have) not already been sold, assigned, or transferred to NTESS Corporation by Inventor(s) in consideration of Inventor(s) employment by NTESS. Inventor(s) hereby authorizes and requests the Commissioner of Patents to issue all Letters Patent issuing therefrom to NTESS, for its interest as NTESS, its successors and assigns.

Inventor(s) covernants with NTESS that, except for the rights, if any, of the Government, his/her interest in the rights and property herein conveyed is free and clear of any encumbrance and that they have full right to convey the same as herein expressed. Inventor(s) agrees, at the request of NTESS, to

Page 1 of 3

make, execute, and deliver to NTESS, the Government, or other party prosecuting patent applications on this invention, any and all papers, documents, affidavits, applications, statements or other instruments relating to said invention, take all rightful oaths and do all acts as may reasonably be required of them in or incident to the prosecution of any or all U.S. and foreign applications on said invention or in the adjustment or settlement of any interferences or other actions or proceedings that said applications or patents thereon may encounter or in which they may become involved.

Signed at 2050///_____ Minnesoata.

Benjamin Varberg Olson

7/3/2 Date

State of Minnesota

County of

_ by Benjamin

Charle Paul

(Signature of Notary Public or other Official)

My Commission Expires:

Page 2 of 3

Approved and consented by:

NATIONAL TECHNOLOGY & ENGINEERING SOLUTIONS OF SANDIA, LLC

~ 7/14//7

Kerry Kampschmidt Chief IP Counsel

Legal Technology Transfer Center

STATE OF NEW MEXICO)

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COUNTY OF BERNALILLO)

On the above date, personally appeared before me, Diana Schanning, Notary Public, Kerry Kampschmidt, to me known to be the individual described in and who executed the foregoing instrument, and who acknowledged to me that he executed the same.

Vian Ohm

OFFICIAL SEAL
Diana Schanning
NOTARY PUBLIC
STATE OF NEW MEXICOY
My Commission Expires:

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PATENT REEL: 043662 FRAME: 0840

RECORDED: 08/24/2017