504215900 02/07/2017 PATENT ASSIGNMENT COVER SHEET

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Name Execution Date AWRENCE LIVERMORE NATIONAL SECURITY, LLC 01/30/2017 RECEIVING PARTY DATA 01/30/2017 Receiving PARTY DATA Image: U.S. DEPARTMENT OF ENERGY Street Address: 1000 INDEPENDENCE AVE., SW Dity: WASHINGTON State/Country: D.C. Prostal Code: 20585 PROPERTY NUMBERS Total: 1 Property Type Property Type Number Application Number: 15400790 CORRESPONDENCE DATA 202586-7127 Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent ising a fax number, if provided; if that is unsuccessful, it will be sent via US Mail. Phone: 2025862802 Email: brenda.banks@hq.doe.gov Correspondent Name: BRENDA K. BANKS Address Line 1: 1000 INDEPENDENCE AVE. Address Line 4: WASHINGTON, D.C. 20585 AME OF SUBMITTER: BRENDA K. BANKS GNATURE: /Brenda K. Banks/ ATE SIGNED: 02/07/2017	SUBMISSION TYPE:		NEW ASSIGI	NMENT			
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CONFIRMATORY LICENSE

Title: Architected Three Dimentional Graphene via Additive Manufacturing

Inventor(s): Christopher M. Spadaccini, Eric B. Duoss, Ryan Hensleigh, Patrick Campbell, James A. Oakdale, Marcus A. Worsley

DOE Docket No.: S147,253Docket No/Sub: IL-13122/AContract Number: DE-AC52-07NA27344U.S. Patent Application S.N.: 15/400790Contractor: Lawrence Livermore National Security, LLCFiling Date: 01/06/17Lawrence Livermore National LaboratoryWaiver No.: W(C) 08-001

Foreign patent applications filed or intended to be filed at contractor's expense in (countries):

WHEREAS, the above-identified invention is a subject invention under the above-identified contract;

WHEREAS, the above-identified Class Waiver of Government rights in certain identified inventions and the aboveidentified contract provides the Contractor with the right to elect to retain title in certain subject inventions and the Contractor has elected to retain title in the above-identified subject invention, EXCEPT FOR a paid-up license under the above-identified contract and the above-identified waiver.

ACCORDINGLY, the Contractor hereby confirms that under the provisions of the above-identified contract governing patent rights, it has granted to the Government a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world. This license applies to the above-identified invention, the above-identified patent application(s), and any and all divisions or continuations thereof and any resulting patent or reissue patent which may be granted thereon.

The Government reserves for itself, and is hereby granted by the Contractor, the irrevocable power to inspect and make copies of the file wrapper(s) of the above-identified U.S. patent application and of any related or continuation patent application(s), whether domestic or foreign, for the above-identified invention.

It is understood and agreed that this instrument does not preclude the Government from asserting rights under the provisions of the above-identified contract or any other agreement between the Government and the Contractor, or any other rights of the Government with respect to the above-identified invention.

Signed on behalf of: LAWRENCE LIVERMORE NATIONAL SECURITY, LLC

Witness

Mellissa Graycar, Administrator

By:

Mark H. Lough, Deputy General Courisel Lawrence Livermore National Laboratory P.O. Box 808, L-701 Livermore, CA 94551-0808

RECORDED: 02/07/2017