

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	EXECUTIVE ORDER 9424, CONFIRMATORY LICENSE
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
LAWRENCE LIVERMORE NATIONAL SECURITY, LLC	04/02/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	U.S. DEPARTMENT OF ENERGY
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<b>City:</b>	WASHINGTON
<b>State/Country:</b>	D.C.
<b>Postal Code:</b>	20585
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16010111
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<b>SIGNATURE:</b>	/Brenda K. Banks/
<b>DATE SIGNED:</b>	04/07/2020
<b>Total Attachments: 1</b>	
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**CONFIRMATORY LICENSE**

**Title: SYSTEM AND METHOD FOR GRAIN REFINEMENT AND GENERAL CONTROL OF GRAIN MORPHOLOGY IN LASER ADDITIVE MANUFACTURING**

**Inventor(s): Gabriel Mark Guss, Tien Roehling, Saad Khairallah, Sheldon S. Wu, Manyalibo Joseph Matthews**

**DOE Docket No.: S150,153**

**Contract Number: DE-AC52-07NA27344**

**Contractor: Lawrence Livermore National Security, LLC  
Lawrence Livermore National Laboratory**

**Docket No./Sub: IL-13280/A**

**U.S. Patent Application S.N.: 16/010111**

**Filing Date: 06/15/18**

**Waiver 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 above-identified 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

*(Contractor)*

**Witness:** \_\_\_\_\_

Pamela Ann Disney, IP Assistant

**By:** Mark H. Lough

Digitally signed by Mark H. Lough

Date: 2020.04.02 10:38:42 -07'00'

Date: \_\_\_\_\_

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**PATENT**

**RECORDED: 04/07/2020**

**REEL: 052336 FRAME: 0785**