

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	JAGANNATHAN RAJAGOPALAN	11/06/2015
	ROHIT SARKAR	11/06/2015
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<b>Postal Code:</b>	85257	
<b>PROPERTY NUMBERS Total: 1</b>		
<b>Property Type</b>	<b>Number</b>	
<b>Application Number:</b>	15458693	
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<b>SIGNATURE:</b>	/Ryan D. Ricks/	
<b>DATE SIGNED:</b>	03/15/2017	
<b>Total Attachments: 2</b>		
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## ASSIGNMENT

## UTILITY PATENT

**WHEREAS**, the undersigned inventor(s) (hereinafter singly and collectively, "ASSIGNOR") of the addresses indicated below, have invented subject matter disclosed and/or claimed in the PCT patent application entitled SYSTEMS AND METHODS FOR TAILORED MICROSTRUCTURES USING TEMPLATED GRAIN NUCLEATION filed on November 5, 2015 and assigned International Application No. PCT/US2015/059162;

**AND WHEREAS**, Arizona Board of Regents (hereinafter "ASSIGNEE") on behalf of Arizona State University, is desirous of memorializing its interest therein;

**AND WHEREAS**, a "formal application," as referred to herein, shall mean any provisional, non-provisional, continuation, continuation in part, divisional, reissue, reexamination, foreign, PCT or other patent application or like document;

**NOW, THEREFORE**, the undersigned ASSIGNOR hereby confirms that ASSIGNOR is an employee, past employee or a contractor of ASSIGNEE and/or that ASSIGNOR developed the subject matter of the inventions on ASSIGNEE's time or at the expense of ASSIGNEE or within the scope of ASSIGNOR's duties to ASSIGNEE and thereby ASSIGNOR recognizes that the ASSIGNEE owns the inventions as described in the aforesaid application. Nonetheless to comport with Patent Office procedures, ASSIGNOR memorializes that relationship in the form of this assignment; and

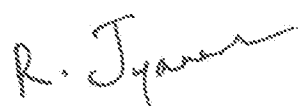

**THEREFORE**, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR by these presents do sell, assign and transfer unto ASSIGNEE, its successors, assigns and legal representatives, the full and exclusive right to the inventions as described in the aforesaid application, including patent, copyright and any other intellectual property rights, any provisional, non-provisional, continuation, continuation in part, divisional, reissue, reexamination, foreign, PCT or other patent application or like document, or any other application which claims priority to said application, including the rights to sue for all past and future causes of action related to said inventions, in the United States and all foreign countries, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States adheres, and hereby authorizes and requests the Commissioner of Patents to issue any Letters Patent issuing from or claiming priority to said application to ASSIGNEE, for the sole use and benefit of ASSIGNEE, its successors, assigns and legal representatives;

**AND HEREBY AGREES** to transfer, upon request of ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, a like interest in and to any improvements, derivative works, and formal applications based thereon, growing out of or relating to the invention;

**AGREEING, FURTHERMORE**, without further remuneration, to provide all reasonable assistance and execute any papers requested by ASSIGNEE, its successors, assigns and legal representatives, to preserve and/or acquire ASSIGNEE's full protection and title in and to the inventions hereby transferred;

**AGREEING, FURTHERMORE,** upon request of ASSIGNEE, and without further remuneration, to execute any and all papers desired by ASSIGNEE for the filing and granting of formal applications based on the inventions or improvements therein, and for the filing and granting of foreign applications and the perfecting of title thereto in ASSIGNEE.

**EXECUTED** as of the date(s) written below by ASSIGNOR:

INVENTOR NAME	ADDRESS	SIGNATURE	DATE
Jagannathan Rajagopalan	1535 N. Scottsdale Road Apt. 1103 Tempe, AZ 85281		11/06/2015
Rohit Sarkar	306 South Hardy Drive Tempe, AZ 85281		11/06/2015