PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
XINJIAN LEI	01/19/2018
ANUPAMA MALLIKARJUNAN	01/22/2018
MATTHEW R MACDONALD	01/19/2018
MANCHAO XIAO	01/19/2018

RECEIVING PARTY DATA

Name:	VERSUM MATERIALS US, LLC
Street Address:	8555 SOUTH RIVER PARKWAY
Internal Address:	PATENT DEPT.
City:	TEMPE
State/Country:	ARIZONA
Postal Code:	85284

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15848270

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	0-7874ZPD USA
NAME OF SUBMITTER:	JOSEPH D. ROSSI
SIGNATURE:	/Joseph D. Rossi/
DATE SIGNED:	01/22/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

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Total Attachments: 2

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PATENT REEL: 044687 FRAME: 0889

ASSIGNMENT & DECLARATION

For value received, we, Xinjian Lei, Anupama Mallikarjunan, Matthew R. MacDonald and Manchao Xiao, hereby sell, assign, and transfer to **VERSUM MATERIALS US, LLC**, a corporation of the State of Delaware, having an office at 8555 South River Parkway, Tempe, AZ 85284, the entire right, title, and interest in and to the invention relating to

SILICON-BASED FILMS AND METHODS OF FORMING THE SAME

described in our application for Letters Patent of the United States (identified by Docket No. 07874ZPD USA; and/or Appl. No. 15/848,270; filed on 12/20/2017), in and to all Letters Patent which may be issued upon said application, in and to any divisional or reissue applications based thereon, and in and to all Letters Patent upon said invention or improvements which may be granted in foreign countries. We hereby also assign and convey to said VERSUM MATERIALS US, LLC, all the rights accruing to us by virtue of the International Convention for the Protection of Industrial Property (Art. 4), including the right to apply for and to have patents issued in its own name.

And we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and the Officials of the Patent Offices of all other countries to issue the Letters Patent of their respective countries to said **VERSUM MATERIALS US, LLC**, as assignee of the entire right, title, and interest in and to the same.

And we hereby promise and agree to execute all papers and perform all acts necessary to secure to and vest in said **VERSUM MATERIALS US, LLC**, its successors and assigns, the rights conveyed as herein set forth.

And I hereby authorize the above-mentioned Assignee or its legal representative to insert in the instrument the application serial number of aforesaid application or any other information that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office.

And we hereby declare that the above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Engin lei (L.S.)		(L.S.)
Xinjian Lëi	Anupama Mallikarjunan	~(au, w.)
January 9, 2018		
Date	Date	~
	March on Manner	_(L.S.)
Matthew R. MacDonald	Manchao Xiao	,
January 19, 2018		reget
⇒ Date	Date	-

PATENT REEL: 044687 FRAME: 0890

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And we hereby promise and agree to execute all papers and perform all acts necessary to secure to and vest in said **VERSUM MATERIALS US, LLC**, its successors and assigns, the rights conveyed as herein set forth.

And I hereby authorize the above-mentioned Assignee or its legal representative to insert in the instrument the application serial number of aforesaid application or any other information that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office.

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Date	 .	Date	
Matthew R. MacDonald	(L.\$.)	Manchao Xiao	(L.S.)
Date		JAN 22, 2018 Date	
Xinjian Lei	(L.S.)	Anupama Mallikarjunan	(L.S.)

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RECORDED: 01/22/2018 REEL: 044687 FRAME: 0891