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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PETER TREFONAS III	02/26/2016

RECEIVING PARTY DATA

Name:	ROHM AND HAAS ELECTRONIC MATERIALS LLC
Street Address:	455 FOREST STREET
City:	MARLBOROUGH
State/Country:	MASSACHUSETTS
Postal Code:	01752

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15052923

CORRESPONDENCE DATA

Fax Number: (860)286-0115

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: 860.286.2929

Email: bdavidson@cantorcolburn.com

Correspondent Name: CANTOR COLBURN LLP Address Line 1: 20 CHURCH STREET

Address Line 2: 22ND FLOOR

Address Line 4: HARTFORD, CONNECTICUT 06103

ATTORNEY DOCKET NUMBER:	ET NUMBER: 77531-US-NP (DOW0041US2)	
NAME OF SUBMITTER:	DAVID E. RODRIGUES	
SIGNATURE:	/David E. Rodrigues/	
DATE SIGNED:	03/29/2016	

Total Attachments: 2

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> **REEL: 038123 FRAME: 0470** 503758082

PATENT

ASSIGNMENT

WHEREAS, I, Peter Trefonas, III	of Medway, MA, (hereinafter referred to as "Assignor"), have
invented certain new and useful	improvements in COPOLYMER FORMULATION FOR
DIRECTED SELF ASSEMBL	Y, METHODS OF MANUFACTURE THEREOF AND
ARTICLES COMPRISING TH	E SAME for which an application for United States Letters
Patent with the same title was fi	led with the United States Patent and Trademark Office or
a	nd assigned United States Non-Provisional Patent Application
Serial No.	, which application corresponds to and claims priority of
United States Provisional Applicat	ion Serial No. 62/121261 filed 26 February 2015 and

WHEREAS, Rohm and Haas Electronic Materials LLC, located at 455 Forest Street, Marlborough, MA 01752, (hereinafter referred to as the "Assignee"), is desirous of acquiring the entire right, title and interest in and to the same invention, and in and to the said application, and any Letters Patent that may issue thereon;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for the above consideration, the Assignor have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest for the United States in and to the said invention and in and to the said application and all patents which may be granted therefore, and all divisions, reissues, substitutions, continuations, in whole or in part, reexaminations, and extensions thereof, and all applications claiming priority therefrom; and the Assignor hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as their interest is concerned, to the Assignee; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the ASSIGNOR would hold and enjoy if this Assignment had not been made.

The ASSIGNOR also have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest in and to the invention disclosed in said application, in all countries of the world foreign to the United States, including the right to file applications and obtain patents for said invention in its own name in said countries and including all rights of priority in said countries under the terms of any applicable international convention; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the ASSIGNOR would hold and enjoy if this Assignment had not been made.

The ASSIGNOR further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agree, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce patent protection for said invention in all countries.

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The Assignor also hereby grant the Patent Law Department of Rohm and Haas Electronic Materials LLC the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, the Assignor have caused this Assignment to be executed.

Signature

Date

Feb 26, 2016

Peter Trefonas, III

PATENT REEL: 038123 FRAME: 0472

RECORDED: 03/29/2016