04/12/2019 505425124

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5471915

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WISSAM RACHED	10/18/2012

RECEIVING PARTY DATA

Name:	ARKEMA FRANCE	
Street Address:	420, RUE D'ESTIENNE D'ORVES	
City:	92700 COLOMBES	
State/Country:	FRANCE	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16382640

CORRESPONDENCE DATA

Fax Number: (703)836-7419

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.

Email: denise.williams@bipc.com

Correspondent Name: BUCHANAN INGERSOLL & ROONEY PC

Address Line 1: 1737 KING STREET

Address Line 2: SUITE 500

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	0078840-000369	
NAME OF SUBMITTER:	DENISE WILLIAMS	
SIGNATURE:	/Denise Williams/	
DATE SIGNED:	04/12/2019	

Total Attachments: 2

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> **PATENT REEL: 048870 FRAME: 0356** 505425124

ASSIGNMENT OF INVENTION AND LETTERS PATENT

WHEREAS, I, Wissam Rached hereinafter referred to as Assignor have invented certain new and useful improvements in HEAT-TRANSFER FLUIDS AND USE THEREOF IN COUNTERCURRENT HEAT EXCHANGERS, International Application No. PCT/FR11/050884, and for which an application USSN 13/697,027, filed 11/09/2012 for Letters Patent of the United States has been duly executed by each of us on even date herewith.

AND WHEREAS, **Arkema France**, a corporation organized under the laws of France and having a place of business at **420 rue d'Estienne d'Orves**, **92700 Colombes**, **France**, hereinafter called the assignee, is desirous of acquiring the entire right, title and interest in and to said invention within the United States of America and its territorial possessions and all foreign countries and any United States and foreign Letters Patent that may be granted therefore.

NOW, THIS INDENTURE WITNESSETH, that for good and valuable consideration, the receipt of which is hereby acknowledged, and with the intention of being legally bound hereby, we have assigned and transferred, and do hereby assign and transfer to the said assignee the entire right, title and interest in and to the said invention within the United States of America and its territorial possessions and all foreign countries and in and to any Letters Patent of the United States and foreign countries and all divisions, reissues, continuations, continuations-in-part, and extensions thereof that may be granted therefore and the right to apply for Letters Patent in foreign countries with full benefit of such priorities as may now or hereafter be granted to us by local laws or by treaty, including any international convention for the protection of industrial property, together with the right to extend the protection of said United States Letters Patent to the various territorial possessions now owned or which may be hereafter acquired by the United States of America, all said rights to be held and enjoyed by the assignee for its own use and behalf, and for the use and behalf of its successors or assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made. And I do hereby request and authorize the Commissioner of Patents, U.S.A., to issue said Letters Patent when granted, in accordance with this assignment.

I further covenant and agree with the assignee that I have a full and unencumbered

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title to the invention herein assigned, which title I warrant unto the assignee, and I further agree that I will, without demanding any further consideration therefore, at the request but at the expense of the assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining or reissuing United States or foreign Letters Patent for the said invention, and for maintaining and perfecting the assignee's right to said invention and Letters Patent, particularly in cases of interference and litigation.

IN TESTIMONY WHEREOF, I have hereunto set our hand on the dates indicated below

Wissam Rached

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