503728848 03/09/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3775491

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JIANZHAO WANG	04/01/2015
MOHAND MELBOUCI	04/04/2015

RECEIVING PARTY DATA

Name:	HERCULES INCORPORATED	
Street Address:	500 HERCULES ROAD	
City:	WILMINGTON	
State/Country:	DELAWARE	
Postal Code:	19805	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15064999

CORRESPONDENCE DATA

Fax Number: (859)357-6850

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: 908-243-3513

Email: ntietcheu@ashland.com
Correspondent Name: WILLIAM J. DAVIS

Address Line 1: 1005 U.S. 202/206
Address Line 2: ASHLAND INC.

Address Line 4: BRIDGEWATER, NEW JERSEY 08807

ATTORNEY DOCKET NUMBER:	HER 11092USNP	
NAME OF SUBMITTER:	SHAORONG CHEN	
SIGNATURE:	/Shaorong CHEN/	
DATE SIGNED:	03/09/2016	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 6

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PATENT 503728848 REEL: 037933 FRAME: 0098

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Docket No.: HER 11092PROV

Serial No.: 62/132028 Filed: March 12, 2015

<u>ASSIGNMENT</u>

WHEREAS, We, Jianzhao Wang and Mohand Melbouci: of the State of Delaware,

have invented certain new and useful improvements in "Hydroxyethlycellulose (HEC) as Eco-Friendly Shale Swell Inhibitors"

described in a patent application executed by us on the even date herewith; and identified as **DKT11092**, and of which improvements, in and for the United States, its territories, dependencies and possessions, and for all foreign countries, we are now the joint owners; and

WHEREAS, **HERCULES INCORPORATED**, a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, and having its principal office and place of business in Wilmington, Delaware, is desirous of acquiring the entire right, title and interest, for the United States, its territories, dependencies and possessions, and for all foreign countries, in and to the said improvements, application, invention or inventions, and any Letters Patent that might be granted therefore or thereupon, the said HERCULES INCORPORATED, its successors and assigns, being hereinafter referred to as "HERCULES."

NOW, THEREFORE, be it known that for good and valuable consideration by us received from said HERCULES, the receipt of which is hereby acknowledged, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, to and unto HERCULES, our entire right, title and interest, for and in the United States, it territories, dependencies and possessions, and for and in all foreign countries, in and to:

- (1) Said invention or inventions, and, in, to and under the above- identified patent application, and
- (2) All improvements and modifications of said invention or inventions which we, solely or jointly have made or conceived, or shall make or conceive, while we are employed by HERCULES, and
- (3) All Letters Patent which may be granted by the United States of America, and countries foreign thereto, for or upon said application, invention or inventions, or said improvements or modifications, and in, to and under all reissues and extensions of said Letters Patent, and in, to and under all renewals, divisions, substitutes and continuations of the aforesaid application, and of any application filed in any country for any improvement or modification mentioned in clause (2) above; any priority rights derived from the aforesaid application for Letters Patent by virtue of the International Convention for the Protection of Industrial Property and any other treaty or understanding for intellectual property for any and all member countries of the aforesaid International Convention or other treaty or understanding and we hereby authorize and request the Commissioner of Patents to issue all Letters Patent of the United States of America on the said invention or inventions to HERCULES as assignee of the entire interest therein.

The inventions and the improvements and modifications mentioned in clauses (1), (2), and (3), above, are hereinafter referred collectively as "said inventions".

Page 2 <u>Docket No.: HER 11092PROV</u>

And, for the above-mentioned considerations, we do hereby covenant and agree:

First: That we will promptly and fully disclose to HERCULES all such improvements and modifications invented by us, and we will freely, fully and promptly communicate (in writing if requested) to HERCULES, or its nominee, all facts, information and evidence possessed or known by or available to us which concern "said inventions", and, at the request of HERCULES, that we will testify in interferences and other legal proceedings which may involve "said inventions".

Second: That we will render HERCULES, at its expense, all assistance which in its sole opinion is necessary to obtain and enforce patent protection in the United States, its territories, dependencies and possessions, and countries foreign thereto, for "said inventions". If we are not employed by HERCULES, a reasonable per diem charge shall be paid by HERCULES for time spent by us in such connection.

Third: That we will, at the request and at the expense of HERCULES, but without further compensation therefore, execute - (a) any and all original, divisional, continuation, substitute, renewal or other applications for Letters Patent of the United States, its territories, dependencies and possessions, and of foreign countries, for "said inventions", (b) any and all applications for the reissue or extension of any Letters Patent of the United States, its territories, dependencies and possessions, and of foreign countries that may be granted upon said application or for "said inventions", and (c) all assignments and other papers that HERCULES may deem necessary or expedient to secure the grant of each and all of said Letters Patent to HERCULES, or its nominee, and to protect and vest in HERCULES the entire right, title and interest, for the United States, its territories, dependencies and possessions, and for foreign countries, in and to "said inventions" and Letters Patent of the United States, its territories, dependencies and possessions, and for foreign countries.

Page 3	DKT#11092
IN TESTIMONY WHEREOF, we have here day of April 2015.	unto set our hand respectively this James (L.s.)
STATE OF Delaware) SS. COUNTY OF New Castle)	Jlanzhao Wang
certify that Jianzhao Wang, personally kno subscribed to the foregoing instrument,	and for the State and County aforesaid, do hereby wn to me to be the same person whose name is appeared before me this day in person and strument as his free and voluntary act, for the uses
IN WITNESS WHEREOF, I have hereunto a day of April 2015.	Set my hand and notarial seal this Other Muly Notary Public My commission expires
SEAL (STA)	DIANNA JILL MALOY NOTARY PUBLIC STATE OF DELAWARE My Commission Expires August 27, 2018

Docket No.: HER 11092PROV

Serial No.: 62/132028 Filed: March 12, 2015

ASSIGNMENT

WHEREAS, We, Jianzhao Wang and Mohand Melbouci: of the State of Delaware,

have invented certain new and useful improvements in "Hydroxyethlycellulose (HEC) as Eco-Friendly Shale Swell Inhibitors"

described in a patent application executed by us on the even date herewith; and identified as **DKT11092**, and of which improvements, in and for the United States, its territories, dependencies and possessions, and for all foreign countries, we are now the joint owners; and

WHEREAS, **HERCULES INCORPORATED**, a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, and having its principal office and place of business in Wilmington, Delaware, is desirous of acquiring the entire right, title and interest, for the United States, its territories, dependencies and possessions, and for all foreign countries, in and to the said improvements, application, invention or inventions, and any Letters Patent that might be granted therefore or thereupon, the said HERCULES INCORPORATED, its successors and assigns, being hereinafter referred to as "HERCULES."

NOW, THEREFORE, be it known that for good and valuable consideration by us received from said HERCULES, the receipt of which is hereby acknowledged, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, to and unto HERCULES, our entire right, title and interest, for and in the United States, it territories, dependencies and possessions, and for and in all foreign countries, in and to:

- (1) Said invention or inventions, and, in, to and under the above- identified patent application, and
- (2) All improvements and modifications of said invention or inventions which we, solely or jointly have made or conceived, or shall make or conceive, while we are employed by HERCULES, and
- (3) All Letters Patent which may be granted by the United States of America, and countries foreign thereto, for or upon said application, invention or inventions, or said improvements or modifications, and in, to and under all reissues and extensions of said Letters Patent, and in, to and under all renewals, divisions, substitutes and continuations of the aforesaid application, and of any application filed in any country for any improvement or modification mentioned in clause (2) above; any priority rights derived from the aforesaid application for Letters Patent by virtue of the International Convention for the Protection of Industrial Property and any other treaty or understanding for intellectual property for any and all member countries of the aforesaid International Convention or other treaty or understanding and we hereby authorize and request the Commissioner of Patents to issue all Letters Patent of the United States of America on the said invention or inventions to HERCULES as assignee of the entire interest therein.

The inventions and the improvements and modifications mentioned in clauses (1), (2), and (3), above, are hereinafter referred collectively as "said inventions".

And, for the above-mentioned considerations, we do hereby covenant and agree:

First: That we will promptly and fully disclose to HERCULES all such improvements and modifications invented by us, and we will freely, fully and promptly communicate (in writing if requested) to HERCULES, or its nominee, all facts, information and evidence possessed or known by or available to us which concern "said inventions", and, at the request of HERCULES, that we will testify in interferences and other legal proceedings which may involve "said inventions".

Second: That we will render HERCULES, at its expense, all assistance which in its sole opinion is necessary to obtain and enforce patent protection in the United States, its territories, dependencies and possessions, and countries foreign thereto, for "said inventions". If we are not employed by HERCULES, a reasonable per diem charge shall be paid by HERCULES for time spent by us in such connection.

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IN TESTIMONY WHEREOF, we have here 4th day of <u>April 2015</u> .	unto set our hand respectively this
	(L.S.) Mohand Melbouci
STATE OF Delaware) SS. COUNTY OF New Castle)	
certify that Mohand Melbouci, personally kn subscribed to the foregoing instrument,	and for the State and County aforesaid, do hereby own to me to be the same person whose name is appeared before me this day in person and trument as his free and voluntary act, for the uses
IN WITNESS WHEREOF, I have hereunto s 4th day of April 2015.	Notary Public My commission expires
SEAL (SEAL) (SEAL)	DIANNA JILL MALOY NOTARY PUBLIC STATE OF DELAWARE My Commission Expires August 27, 2016

PATENT REEL: 037933 FRAME: 0105

RECORDED: 03/09/2016