# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4945352

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
STEPHEN H. BROWN	04/17/2018
BRIAN A. CUNNINGHAM	04/25/2018
RANDOLPH J. SMILEY	04/20/2018
SAMIA ILIAS	04/17/2018
BRENDA A. RAICH	04/18/2018
TIEN V. LE	05/02/2018

### **RECEIVING PARTY DATA**

Name:	EXXONMOBIL RESEARCH AND ENGINEERING COMPANY
Street Address:	1545 ROUTE 22 EAST
Internal Address:	P.O. BOX 900
City:	ANNANDALE
State/Country:	NEW JERSEY
Postal Code:	08801-0900

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15933422

### CORRESPONDENCE DATA

Fax Number: (908)335-3649

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: 908-335-3605

Email: kimberly.m.shapiro@exxonmobil.com

EXXONMOBIL RESEARCH AND ENGINEERING COMPANY **Correspondent Name:** 

**1545 ROUTE 22 EAST** Address Line 1:

Address Line 2: P.O. BOX 900

Address Line 4: ANNANDALE, NEW JERSEY 08801-0900

ATTORNEY DOCKET NUMBER:	2017EM107-US2
NAME OF SUBMITTER:	JOSEPH E. WRKICH
SIGNATURE:	/Joseph E. Wrkich/
DATE SIGNED:	05/03/2018

PAIENI **REEL: 045709 FRAME: 0178** 504898609

## **Total Attachments: 4**

source=2017EM107-US2-2018-05-03-Assignment#page1.tif

source=2017EM107-US2-2018-05-03-Assignment#page2.tif

source=2017EM107-US2-2018-05-03-Assignment#page3.tif

source=2017EM107-US2-2018-05-03-Assignment#page4.tif

PATENT REEL: 045709 FRAME: 0179

Application Serial No.	15/933,422
EMRE Docket No.	2017EM107-US2
RANDOLPH J. SM	ILEY

STEPHEN H. BROWN

BRIAN A. CUNNINGHAM

ASSIGNMENT INVENTORS:

SAMIA ILIAS

BRENDA A. RAICH

TIEN V. LE

For good and valuable consideration, the undersigned person(s) named above, herein referred to as UNDERSIGNED, hereby agree(s) as follows:

1) UNDERSIGNED hereby assign(s) to ExxonMobil Research and Engineering Company (formerly Exxon Research and Engineering Company), a corporation of Delaware, its successors, legal representatives and assigns, herein referred to collectively as ASSIGNEE, the entire right, title and interest, for the United States and all foreign countries, in and to UNDERSIGNED's invention or improvement and to all patent applications and patents covering same which is described in a patent application entitled

### RESID UPGRADING WITH REDUCED COKE FORMATION

17th, 18th, 20, & 25th April said application having been executed on the 2nd day(s) of May , 2018 , and being further identified as EMRE Docket No. 2017EM107-US2; all rights of priority created by said application under provisions of international convention or treaties.

- 2) UNDERSIGNED agree(s) upon the request of ASSIGNEE to execute any and all applications for and documents relating to obtaining patents and the prosecution thereof for said invention or improvement, and any continuations of such applications or substitutes therefor or registrations thereof, and any specific separate assignments of any of the above required for recording in the United States Patent and Trademark Office and any foreign patent office that ASSIGNEE may deem necessary or expedient.
- 3) UNDERSIGNED agree(s) that in the event of any application based on said assigned invention or improvement, or patent issued thereon, or any reissue or application for the reissue thereof, becoming involved in priority of invention proceedings, UNDERSIGNED will cooperate with ASSIGNEE to the best of the ability of UNDERSIGNED in the matter of preparing and executing all documents and giving and producing evidence in support thereof.
- 4) UNDERSIGNED agree(s) to perform upon ASSIGNEE's request any and all affirmative acts to obtain United States and foreign patents covering said invention or improvement and to vest all rights therein hereby conveyed to ASSIGNEE, as fully and as entirely as the same would have been held and enjoyed by UNDERSIGNED if this assignment and sale had not been made.
- 5) UNDERSIGNED hereby authorize(s) ASSIGNEE to insert in this instrument the date(s) on which UNDERSIGNED executed the Declaration for the above-referenced patent application.

NAME.	assignment has been executed b	oy UNDERSIGNED on the date op	oposite UNDERSIGNED's
Date 4-17-18	Inventor STEPHEN H. BRO	(LS) Witness	4
Date	InventorBRIAN A. CUNNII	(LS) Witness	
Date 4-20-18'	Inventor RANDOLPH J. SM		
Date 4-17-18	Inventor SAMIA ILIAS	(LS) Witness	<u> </u>
Page 1 of 2			U

\*27810\* 27810 PATENT TRADEMARK OFFICE

				ppucanon senai 180.	13/733,422
				EMRE Docket No.	2017EM107-US2
		ASSIGNMET VVENTOR of INV	********		
STEPHEN	H. BROWN	BRIAN A. CUI	NNINGHAM	RANDOLPH J. SM	LEY
SAMI	A ILIAS	BRENDA A	. RAICH	TIEN V. LE	
For good and valuable consider agree(s) as follows:	ation, the undersign	ned person(s) named	above, herein	referred to as UNDERSIC	NED, hereby
<ol> <li>UNDERSIGNED her Engineering Company), a corpo as ASSIGNEE, the entire right, invention or improvement and t entitled</li> </ol>	ration of Delaware title and interest, f	, its successors, legi or the United States	il representativ and all foreign	countries, in and to UNDI	rred to collectively ERSIGNED's
F	RESID UPGRADI	NG WITH REDUC	ED COKE FO	ORMATION	
	17th, 18	ith, 20, & 25th	April		
said application having been ex EMRE Docket No. 2017EM107 convention or treaties.		2nd day(s) of priority created by s		2018 , and being furth under provisions of inter	
<ol> <li>UNDERSIGNED agr ing to obtaining patents and the or substitutes therefor or registr, the United States Patent and Tra</li> </ol>	prosecution thereo ations thereof, and	f for said invention any specific separat	or improvemen e assignments (	of any of the above require	f such applications and for recording in
UNDERSIGNED agr patent issued thereon, or any rei UNDERSIGNED will cooperat executing all documents and given.	ssue or application e with ASSIGNEE	for the reissue there to the best of the ab	of, becoming i ility of UNDE		ention proceedings,
UNDERSIGNED agr and foreign patents covering sai and as entirely as the same would	d invention or imp	rovement and to ves	t all rights ther		SSIGNEE, as fully
5) UNDERSIGNED he executed the Declaration for the			in this instrume	ent the date(s) on which U	NDERSIGNED
IN WITNESS WHEREOF, this NAME.	assignment has be	en executed by UNI	DERSIGNED o	in the date opposite UNDI	ERSIGNED's
Date	InventorSTEP	HEN H. BROWN	(LS)	Witness	
Date 25 Apr. 2018	Inventor /2 BRIAI	2 . (/// n a-conningha	(LS) M	Witness ###	隆也
Date	InventorRANE	OLPH J. SMILEY	(LS)	Witness	

Inventor SAMIA ILIAS

Page 1 of 2

Date\_\_\_

PATENT REEL: 045709 FRAME: 0181

(LS)

Witness

		Application Serial No.	15/933,422	
		EMRE Docket No.	2017EM107-US2	
	ASSIGNMENT INVENTOR or INVENTORS:	•		
STEPHEN H. BROWN	BRIAN A. CUNNINGHAM	RANDOLPH J. SM	LEY	
SAMIA ILIAS	BRENDA A. RAICH	TIEN V. LE		
For good and valuable consideration, the unde agree(s) as follows:	rsigned person(s) named above, here	in referred to as UNDERSIC	NED, hereby	
1) UNDERSIGNED hereby assign(s) to ExxonMobil Research and Engineering Company (formerly Exxon Research and Engineering Company), a corporation of Delaware, its successors, legal representatives and assigns, herein referred to collectively as ASSIGNEE, the entire right, title and interest, for the United States and all foreign countries, in and to UNDERSIGNED's invention or improvement and to all patent applications and patents covering same which is described in a patent application entitled				
RESID UPGR	ADING WITH REDUCED COKE	FORMATION		
17th, said application having been executed on the EMRE Docket No. 2017EM107-US2; all right convention or treaties.	18th, 20, & 25th April 2nd day(s) of May s of priority created by said applicati	2018 , and being furth ion under provisions of inten	er identified as national	
2) UNDERSIGNED agree(s) upon the request of ASSIGNEE to execute any and all applications for and documents relating to obtaining patents and the prosecution thereof for said invention or improvement, and any continuations of such applications or substitutes therefor or registrations thereof, and any specific separate assignments of any of the above required for recording in the United States Patent and Trademark Office and any foreign patent office that ASSIGNEE may deem necessary or expedient.				
3) UNDERSIGNED agree(s) that in the event of any application based on said assigned invention or improvement, or patent issued thereon, or any reissue or application for the reissue thereof, becoming involved in priority of invention proceedings, UNDERSIGNED will cooperate with ASSIGNEE to the best of the ability of UNDERSIGNED in the matter of preparing and executing all documents and giving and producing evidence in support thereof.				
4) UNDERSIGNED agree(s) to perform upon ASSIGNEE's request any and all affirmative acts to obtain United States and foreign patents covering said invention or improvement and to vest all rights therein hereby conveyed to ASSIGNEE, as fully and as entirely as the same would have been held and enjoyed by UNDERSIGNED if this assignment and sale had not been made.				
5) UNDERSIGNED hereby authorize( executed the Declaration for the above-referen	s) ASSIGNEE to insert in this instructed patent application.	ment the date(s) on which U	NDERSIGNED	
IN WITNESS WHEREOF, this assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED's NAME.				
Date 4/18/2018 Inventor F	Juvda A. Paidas) ENDA A. RAICH	Witness		

Witness

Page 2 of 2

Date\_\_\_\_\_

Inventor\_\_\_\_\_\_TIEN V. LE

\*27810\* 27810 PATENT TRADEMARK OFFICE

			Application Serial No.	15/933,422
			EMRE Docket No.	2017EM107-US2
	II	ASSIGNMENT NVENTOR or INVENTORS:		
	STEPHEN H. BROWN	BRIAN A. CUNNINGHAM	RANDOLPH J. SM	ILEY
	SAMIA ILIAS	BRENDA A. RAICH	TIEN V. LE	
For good and va agree(s) as follo	luable consideration, the undersign	ned person(s) named above, herein	referred to as UNDERSIC	INED, hereby
Engineering Cor as ASSIGNEE, (	ERSIGNED hereby assign(s) to Exmpany), a corporation of Delaware the entire right, title and interest, for overnent and to all patent applications.	, its successors, legal representativ or the United States and all foreign	es and assigns, herein refe countries, in and to UND	rred to collectively ERSIGNED's
	RESID UPGRADI	NG WITH REDUCED COKE F	ORMATION	
	having been executed on the Io. 2017EM107-US2; all rights of	n, 20, & 25th April 2nd day(s) of May priority created by said application	2018 , and being furth 1 under previsions of inter	
ing to obtaining or substitutes the	RSIGNED agree(s) upon the requipatents and the prosecution thereotrefor or registrations thereof, and s Patent and Trademark Office and	f for said invention or improvement any specific separate assignments	it, and any continuations o of any of the above require	f such applications ed for recording in
patent issued the UNDERSIGNED	ERSIGNED agree(s) that in the ever reon, or any reissue or application D will cooperate with ASSIGNEE cuments and giving and producing	for the reissue thereof, becoming to the best of the ability of UNDE	involved in priority of inve	ention proceedings,
and foreign pater	RSIGNED agree(s) to perform up nts covering said invention or imp s the same would have been held a	ovement and to vest all rights ther	ein hereby conveyed to Al	SSIGNEE, as fully
	ERSIGNED hereby authorize(s) A claration for the above-referenced		ent the date(s) on which U	NDERSIGNED
IN WITNESS W NAME.	HEREOF, this assignment has been	on executed by UNDERSIGNED	on the date opposite UNDE	ERSIGNED's
Date	lmontor	74 <i>5</i> 7	Witness	

Page 2 of 2

**RECORDED: 05/03/2018** 

Date 5/2/2013

PATENT REEL: 045709 FRAME: 0183

Winess Jaul Brimbler