504236406 02/21/2017

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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EPAS ID: PAT4283083

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
LANCE A. BAIRD	10/06/2015
SATHIT KULPRATHIPANJA	10/12/2015
PAOLO PALMAS	10/12/2015

#### **RECEIVING PARTY DATA**

Name:	UOP LLC		
Street Address:	25 EAST ALGONQUIN ROAD		
Internal Address:	PATENT DEPARTMENT		
City:	DES PLAINES		
State/Country:	ILLINOIS		
Postal Code:	60017		

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

Property Type	Number
Application Number:	15285419

#### **CORRESPONDENCE DATA**

**Fax Number:** (847)391-2387

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:** 847-391-2040

Email: ip.docketclerk@Honeywell.com

Correspondent Name: HONEYWELL INTERNATIONAL INC

Address Line 1: 115 TABOR ROAD Address Line 2: MAIL STOP 4D3

Address Line 4: MORRIS PLAINS, NEW JERSEY 07950

ATTORNEY DOCKET NUMBER:	H0046938-01-8935
NAME OF SUBMITTER:	ELIZABETH E. TARVER
SIGNATURE:	/ELIZABETH E. TARVER/
DATE SIGNED:	02/21/2017

## **Total Attachments: 6**

source=2016-10-04-USA-H0046938-01-Assignment-SIGNED#page1.tif source=2016-10-04-USA-H0046938-01-Assignment-SIGNED#page2.tif

PATENT 504236406 REEL: 041314 FRAME: 0434

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> PATENT REEL: 041314 FRAME: 0435

for which application for patent in the United States:

WHEREAS, the undersigned inventor(s) (hereinafter individually and collectively referred to as "ASSIGNOR") has invented new and useful improvements in:

### PROCESSES FOR REDUCING THE ENERGY CONSUMPTION OF A CATALYTIC CRACKING **PROCESS**

has been executed on even date herewith;
was executed on;
X was filed on 10/05/2015 and assigned U.S. Application No. 62/237,264;
X was filed on 10/04/2016 and assigned U.S. Application No. 15/285,419 ;
AND WHEREAS, the "Assigned Property" shall mean (i) the above-identified United States
application for patent (the "Application"), (ii) all inventions disclosed in the Application, (iii) any and all applications for patent throughout the world directed to the subject matter of the Application, (iv) the right of priority arising from the Application or from such other applications, under the Paris Convention for the Protection of Industrial Property or under relevant laws, treaties, conventions or bilateral and multilateral agreements, in any jurisdiction, (v) any and all patents throughout the world resulting from the Application or such other application(s) for patents, and (vi) any and all claims against third parties in connection with any of the rights assigned by this Agreement;
AND WHEREAS, UOP LLC, a Delaware Limited Liability Company having a place of business at 25 East Algonquin Road, Des Plaines, IL 60017-5017, its successors and assigns (hereinafter individually and collectively referred to as "ASSIGNEE"), is desirous of acquiring ASSIGNOR's entire right, title, and interest in and to and resulting from said Assigned Property and in general all property rights included therein;
NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are
hereby acknowledged, ASSIGNOR does hereby irrevocably and unconditionally assign and transfer unto ASSIGNEE ASSIGNOR's entire right, title and interest in and to and resulting from the Assigned Property, and hereby authorizes and requests the Commissioner of Patents to issue said patent to ASSIGNEE for the sole use and benefit of ASSIGNEE; ASSIGNEE hereby accepts such transfer and assignment;
<b>AND ASSIGNOR FURTHERMORE</b> authorizes ASSIGNEE, or anyone it may properly designate, to insert on each page of this instrument (where indicated) the filing date and application number of said Application when known;
AND ASSIGNOR AGREES, FURTHERMORE, upon request of ASSIGNEE, and without further remuneration, but at no expense to ASSIGNOR, that ASSIGNOR or ASSIGNOR'S heirs, executors, or administrators will provide all reasonable assistance to obtain, maintain, and assert the fullest measure of legal protection that ASSIGNEE desires to obtain or assert for the Assigned Property, including executing any and all papers desired by ASSIGNEE for the filing and granting of patent rights in the Assigned Property, the perfecting of title in ASSIGNEE, and in enforcing any rights in the Assigned Property.
This instrument is executed by, and shall be binding upon ASSIGNOR, and ASSIGNOR's heirs, executors and administrators, for the uses and purposes above set forth and referred to and shall inure to the benefit of ASSIGNEE or anyone it may properly designate.
If any provision of this assignment is held by any court to be unenforceable, such provision shall be interpreted to accomplish the objectives of the original provision to the fullest extent allowed by law and the remainder of this assignment shall remain in full force and effect.
This assignment shall be construed, governed, interpreted and applied in accordance with the laws of the State of Delaware, United States of America.
PCT Application No filed
1 O C (Appliodition in the control i

**PATENT REEL: 041314 FRAME: 0436** 

(Rev.03/20/2012)

**EXECUTED o**n behalf of ASSIGNEE and effective as of the latest date of the ASSIGNOR signature(s) below:

Mayou Mood		
Maryann Maas Assistant Secretary – Patent UOP LLC		
EXECUTED as of the date(s) set forth below on behalf  Lance A. Baird		6 Oct 2015
Sathit Kulprathipanja	_ Date:	
Paolo Palmas	_ Date:	

PCT	Application No.	filed	

(Rev.03/20/2012)

WHEREAS, the undersigned inventor(s) (hereinafter individually and collectively referred to as "ASSIGNOR") has invented new and useful improvements in:

# PROCESSES FOR REDUCING THE ENERGY CONSUMPTION OF A CATALYTIC CRACKING PROCESS

for v	vhich application for patent in the United States:
	has been executed on even date herewith;
***********	was executed on
<u>X</u>	was filed on 10/05/2015 and assigned U.S. Application No. 62/237,264 ;
<u>X</u> _	was filed on 10/04/2016 and assigned U.S. Application No. 15/285,419

AND WHEREAS, the "Assigned Property" shall mean (i) the above-identified United States application for patent (the "Application"), (ii) all inventions disclosed in the Application, (iii) any and all applications for patent throughout the world directed to the subject matter of the Application, (iv) the right of priority arising from the Application or from such other applications, under the Paris Convention for the Protection of Industrial Property or under relevant laws, treaties, conventions or bilateral and multilateral agreements, in any jurisdiction, (v) any and all patents throughout the world resulting from the Application or such other application(s) for patents, and (vi) any and all claims against third parties in connection with any of the rights assigned by this Agreement;

AND WHEREAS, UOP LLC, a Delaware Limited Liability Company having a place of business at 25 East Algonquin Road, Des Plaines, IL 60017-5017, its successors and assigns (hereinafter individually and collectively referred to as "ASSIGNEE"), is desirous of acquiring ASSIGNOR's entire right, title, and interest in and to and resulting from said Assigned Property and in general all property rights included therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR does hereby irrevocably and unconditionally assign and transfer unto ASSIGNEE ASSIGNOR's entire right, title and interest in and to and resulting from the Assigned Property, and hereby authorizes and requests the Commissioner of Patents to issue said patent to ASSIGNEE for the sole use and benefit of ASSIGNEE; ASSIGNEE hereby accepts such transfer and assignment;

**AND ASSIGNOR FURTHERMORE** authorizes ASSIGNEE, or anyone it may properly designate, to insert on each page of this instrument (where indicated) the filing date and application number of said Application when known;

AND ASSIGNOR AGREES, FURTHERMORE, upon request of ASSIGNEE, and without further remuneration, but at no expense to ASSIGNOR, that ASSIGNOR or ASSIGNOR'S heirs, executors, or administrators will provide all reasonable assistance to obtain, maintain, and assert the fullest measure of legal protection that ASSIGNEE desires to obtain or assert for the Assigned Property, including executing any and all papers desired by ASSIGNEE for the filing and granting of patent rights in the Assigned Property, the perfecting of title in ASSIGNEE, and in enforcing any rights in the Assigned Property.

This instrument is executed by, and shall be binding upon ASSIGNOR, and ASSIGNOR's heirs, executors and administrators, for the uses and purposes above set forth and referred to and shall inure to the benefit of ASSIGNEE or anyone it may properly designate.

If any provision of this assignment is held by any court to be unenforceable, such provision shall be interpreted to accomplish the objectives of the original provision to the fullest extent allowed by law and the remainder of this assignment shall remain in full force and effect.

This assignment shall be construed, governed, interpreted and applied in accordance with the laws of the State of Delaware, United States of America.

PCT Application No.	 filed	
		(Rev.03/20/2012)

PATENT REEL: 041314 FRAME: 0438 **EXECUTED o**n behalf of ASSIGNEE and effective as of the latest date of the ASSIGNOR signature(s) below:

Maryann	Maas
Accietant	Canrat

Assistant Secretary - Patent

UOP LLC

**EXECUTED** as of the date(s) set forth below on behalf of the ASSIGNOR:

Lance A. Baird	Date:
Sathit Kulprathipanja	Date:
Paolo Palmas	Date:

PCT Application No. \_\_\_\_\_\_\_filed \_\_\_\_\_

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**WHEREAS**, the undersigned inventor(s) (hereinafter individually and collectively referred to as "ASSIGNOR") has invented new and useful improvements in:

# PROCESSES FOR REDUCING THE ENERGY CONSUMPTION OF A CATALYTIC CRACKING PROCESS

101	which application for patent in the officed States.					
	has been executed on even date herewith;					
	was executed on;					
X	was filed on 10/05/2015 and assigned U.S. Application No. 62/237,26	4;				
Х.	was filed on 10/04/2016 and assigned U.S. Application No. 15/285,41	<u>)</u> ;				

**AND WHEREAS**, the "Assigned Property" shall mean (i) the above-identified United States application for patent (the "Application"), (ii) all inventions disclosed in the Application, (iii) any and all applications for patent throughout the world directed to the subject matter of the Application, (iv) the right of priority arising from the Application or from such other applications, under the Paris Convention for the Protection of Industrial Property or under relevant laws, treaties, conventions or bilateral and multilateral agreements, in any jurisdiction, (v) any and all patents throughout the world resulting from the Application or such other application(s) for patents, and (vi) any and all claims against third parties in connection with any of the rights assigned by this Agreement;

**AND WHEREAS**, UOP LLC, a Delaware Limited Liability Company having a place of business at 25 East Algonquin Road, Des Plaines, IL 60017-5017, its successors and assigns (hereinafter individually and collectively referred to as "ASSIGNEE"), is desirous of acquiring ASSIGNOR's entire right, title, and interest in and to and resulting from said Assigned Property and in general all property rights included therein:

**NOW, THEREFORE,** for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR does hereby irrevocably and unconditionally assign and transfer unto ASSIGNEE ASSIGNOR's entire right, title and interest in and to and resulting from the Assigned Property, and hereby authorizes and requests the Commissioner of Patents to issue said patent to ASSIGNEE for the sole use and benefit of ASSIGNEE; ASSIGNEE hereby accepts such transfer and assignment;

**AND ASSIGNOR FURTHERMORE** authorizes ASSIGNEE, or anyone it may properly designate, to insert on each page of this instrument (where indicated) the filing date and application number of said Application when known;

AND ASSIGNOR AGREES, FURTHERMORE, upon request of ASSIGNEE, and without further remuneration, but at no expense to ASSIGNOR, that ASSIGNOR or ASSIGNOR'S heirs, executors, or administrators will provide all reasonable assistance to obtain, maintain, and assert the fullest measure of legal protection that ASSIGNEE desires to obtain or assert for the Assigned Property, including executing any and all papers desired by ASSIGNEE for the filing and granting of patent rights in the Assigned Property, the perfecting of title in ASSIGNEE, and in enforcing any rights in the Assigned Property.

This instrument is executed by, and shall be binding upon ASSIGNOR, and ASSIGNOR's heirs, executors and administrators, for the uses and purposes above set forth and referred to and shall inure to the benefit of ASSIGNEE or anyone it may properly designate.

If any provision of this assignment is held by any court to be unenforceable, such provision shall be interpreted to accomplish the objectives of the original provision to the fullest extent allowed by law and the remainder of this assignment shall remain in full force and effect.

This assignment shall be construed, governed, interpreted and applied in accordance with the laws of the State of Delaware, United States of America.

PCT Application No.	**************************************	filed	******************************

**EXECUTED o**n behalf of ASSIGNEE and effective as of the latest date of the ASSIGNOR signature(s) below:

Assistant Secretary - Patent

**UOP LLC** 

EXECUTED as of the date(s) set forth	below on behalf of the ASSIGNOR:
--------------------------------------	----------------------------------

Lance A. Baird	Date:		
Sathit Kulprathipanja	Date:		
Taple Jalmas Paolo Palmas	Date: 10/12/15		

PCT Application No. \_\_\_\_\_ filed \_\_\_\_\_

REEL: 041314 FRAME: 0441