#### 506918273 10/12/2021

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6965108

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
GRANT H. YOKOMIZO	09/03/2021
PING SUN	08/25/2021
MARK VAN WEES	08/24/2021
NEERAJ TIWARI	09/09/2021
SYED HASSAN SHAH	09/03/2021

#### **RECEIVING PARTY DATA**

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

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

Property Type	Number
Application Number:	17499670

#### **CORRESPONDENCE DATA**

Fax Number:

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:** 18723103005

**Email:** cindi.schermerhorn@paschall-ip.com

Correspondent Name: CINDI SCHERMERHORN Address Line 1: 210 N. HICKORY AVENUE

Address Line 4: ARLINGTON HEIGHTS, UNITED STATES 60004

ATTORNEY DOCKET NUMBER:	H219579-US
NAME OF SUBMITTER:	CINDI SCHERMERHORN
SIGNATURE:	/Cindi Schermerhorn/
DATE SIGNED:	10/12/2021

**Total Attachments: 10** 

source=H219579-US\_Assignment-Yokomizo-signed#page1.tif

PATENT REEL: 057770 FRAME: 0083

506918273

source=H219579-US\_Assignment-Yokomizo-signed#page2.tif
source=H219579-US\_Assigment-Sun#page1.tif
source=H219579-US\_Assignment-VanWees-signed#page1.tif
source=H219579-US\_Assignment-VanWees-signed#page2.tif
source=H219579-US\_Assignment-Tiwari-Signed#page1.tif
source=H219579-US\_Assignment-Tiwari-Signed#page2.tif
source=H219579-US\_Assignment-Tiwari-Signed#page2.tif
source=H219579-US\_Assignment-Shah#page1.tif
source=H219579-US\_Assignment-Shah#page2.tif

#### **ASSIGNMENT**

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

## PROCESS AND APPARATUS FOR INTRODUCING CATALYST PRECURSOR INTO SLURRY HYDROCRACKING REACTOR

for w	hich application for pat	ent in the United States:	
<u>X</u>	has been executed or	ı even date herewith;	
	was executed on	;	
	was filed on	and assigned U.S. Appl. No.	;
	was filed on	and assigned U.S. Appl. No	:

**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.

Deputy Chief IP Counsel UOP LLC

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

Sunt of Yokow 20	$_{\text{Date:}} 9/3/21$
Grant H. Yokomizo /	-
Ping Sun	Date:
	Date:
Mark Van Wees	
	Date:
Neeraj Tiwari	
	Date:
Syed Hassan Shah	

assigned by this Agreement;

for which application for patent in the United States:

X has been executed on even date herewith;

#### **ASSIGNMENT**

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

## PROCESS AND APPARATUS FOR INTRODUCING CATALYST PRECURSOR INTO SLURRY HYDROCRACKING REACTOR

*********	was executed on	
********	was filed on	and assigned U.S. Appl. No;
	was filed on	and assigned U.S. Appl. No
Α	IND WHEREAS, th	ie "Assigned Property" shall mean (i) the above-identified United States application
for pa	stent (the "Applicat	ion"), (ii) all inventions disclosed in the Application, (iii) any and all applications for
paten	it throughout the w	orld 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
Indus	trial Property or un	ider relevant laws, treaties, conventions or bilateral and multilateral agreements, in

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;

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

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.

-(Rev-03/20/2012)

Deputy Chief IP Counsel UOP LLC

Ashlys E. Romano

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

<i></i>	Date:	
Grant H. Yokomizo		
Ping Sun	Date:	08/25/20
Mark Van Wees	Date:	
Neeraj Tiwari	Date:	
Syed Hassan Shah	Date:	

assigned by this Agreement;

for which application for patent in the United States:

X has been executed on even date herewith:

#### **ASSIGNMENT**

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

### PROCESS AND APPARATUS FOR INTRODUCING CATALYST PRECURSOR INTO SLURRY HYDROCRACKING REACTOR

	was executed on	<u>,</u>	,			•	
	was filed on	and assigned U.S.	Appl. No		;		
	was filed on	and assigned U.S.	Appl. No		;		
A	ND WHEREAS, the	e "Assigned Property" shall r	nean (i) the	above-ide	ntified United	States applicat	ion
for pa	tent (the "Application	on"), (ii) all inventions disclos	sed in the A	Application,	, (iii) any and	all applications	for
paten	t throughout the wo	orld directed to the subject m	atter of the	<b>Application</b>	n, (iv) the righ	it of priority aris	ing
from 1	the Application or	from such other application	is, under th	ne Paris C	onvention for	the Protection	of
Indust	trial Property or und	der relevant laws, treaties, co	onventions	or bilateral	and multilate	ral 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

**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.

Deputy Chief IP Counsel UOP LLC

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

444444	Date:
Grant H. Yokomizo	
Diag C	Date:
Ping Sun	
ful In Qu	Date: <u>24 Aug 2021</u>
Mark Van Wees	**
	Date:
Neeraj Tiwari	
***************************************	Date:
Sved Hassan Shah	•

for which application for patent in the United States:

X has been executed on even date herewith;

#### **ASSIGNMENT**

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

# PROCESS AND APPARATUS FOR INTRODUCING CATALYST PRECURSOR INTO SLURRY HYDROCRACKING REACTOR

	was executed on	1
	was filed on	and assigned U.S. Appl. No:
_	was filed on	and assigned U.S. Appl. No;
A	ND WHEREAS, the	ssigned Property" shall mean (i) the above-identified United States application (ii) all inventions disclosed in the Application, (iii) any and all applications for
paten	t throughout the worl	directed to the subject matter of the Application, (iv) the right of priority arising
from	the Application or fo	m such other applications, under the Paris Convention for the Protection of
Indus	trial Property or unde	relevant laws, treaties, conventions or bilateral and multilateral agreements, in

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.

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

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 filling 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.

(Rev.03/20/2012)

Deputy Chief IP Counsel UOP LLC

Askley E. Romano

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

			Date:	
Grant H. Yokomizo				
			Date:	
Ping Sun				
			Date:	·
Mark Van Wees				
HEERAJ	TIWARI	Minnis	Date:	SEPTEMBER 3, 202
Neeraj Tiwari				
			Date:	
Syed Hassan Shah		***************************************		

#### ASSIGNMENT

WHEREAS, the undersigned inventorial therematics individually and collectively referred to an ASSIGNOR 1 has precised new and useful improvements in:

### PROCESS AND APPARATUS FOR INTRODUCING CATALYST PRECURSOR INTO SLURRY HYDROCRACKING REACTOR

		88																											
																			. (4										
								S.																					
				М.																ĸ.									
																						10							
								ΔV																					

AND VMEREAS, the "Assigned Properly shall mean ii) the above identified United States application to patent (the "Application", (ii) all inventions disclosed in the Application (iii) any and all applications by patent stronghold the world directed in the subject matter of the Application (iv) the right of privarity ansing from the Application or from such other applications, under the Pairs Convention for the Protection of Industrial Property or under relevant laws matters conventions or plateral and indillateral applications are successful. (ii) any and all patents throughout the world resulting from the Application of such other applications and for patents, and for any and all claims against third pathes in connection with any of the rights assigned by the Application.

AND WHEREAS, UOP LLC, a Delaware Limited Liability Company having a place of business at 25 East Algorithm Road. Des Plaines, it. 60017-5017 its autoessors and assigns (hereinafter individually and collectively reterred to as "ASSLINEE"), is designed of acquiring ASSIGNORS entire right title, and removes 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 recept and sufficiency of which are needly acknowledged. A SIGNOR cases hereby inexceptly and describing ally assign and transfer uno ASSIGNEE ASSIGNORs earning to the and merest in and to and resolving from the Assigned Properly and hereby authorities and requests the Commissioner of Patients to issue said patent to ASSIGNEE for the sold use and bandful ASSIGNEE ASSIGNEE hereby accepts such preservant assignment.

AND ASSIGNOR FURTHERMORE authorizes ASSIGNEE, or anyone it may properly designate, to resent on each page of this instrument parties indicated, the filting date and application flumber of said Application when proves.

AND ASSIGNOR AGREES, FURTHERMORE, upon request of ASSIGNEE, and virtual runner enumeration, but at no expense to ASSIGNER, that ASSIGNER or ASSIGNOR'S here, execution or administration and provide all resources executions to draw materials and essent the full less measures or again protection that ASSIGNEE courses to obtain in several or the Assigned Property indicating 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 ordering any option in a 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 incre to the benefit of ASSIGNEE or anyone it may properly designate.

If any processor of this assignment is field by any court to be uncontrastable, such provision small be interpreted to accomplet the objectives of the original provision to the foliast extent altowed by law and the constraint of this assignment shall remain in full to us and affect.

The assignment shall be constitled, governed, interpreted and applied in accordance with the laws of the State of Dotaware. United States of America.

Processed Decreased in Linear

\*\*\*\*\*\*\*\*\*\*\*

EARCUTED on behalf of ACCIGNEE and effective as of the latest date of the ACSIGNOR

aignature(s) below Address Comme Deputy Chief IF Course (CF L) EXECUTED as of the date(s) set forth below on behalf of the ASSIGNOR. Date: Grant H. Yokomizo 00000 Ping Sun Date: Mark Van Wees Dote Neers; Tiwari

Jed Hassam Shah Ban Sypenber 34 2021

Syed Hassan Shah