503272575 04/21/2015

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
XIANGHUA YU	03/05/2015
SHUGUANG ZHANG	03/05/2015
GILL MALICK	03/09/2015
BRUNO NESCI	03/05/2015
HENRY SATERNUS	03/05/2015
CECELIA RADLOWSKI	03/05/2015
COLLEEN MIEDONA	03/05/2015

RECEIVING PARTY DATA

Name:	ADVANCED REFINING TECHNOLOGIES, LLC
Street Address:	7500 GRACE DRIVE
City:	COLUMBIA
State/Country:	MARYLAND
Postal Code:	21044

PROPERTY NUMBERS Total: 1

Property Type	Number				
Application Number:	14261346				

CORRESPONDENCE DATA

Fax Number: (925)842-2051

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.

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ATTORNEY DOCKET NUMBER:	T-9612B
NAME OF SUBMITTER:	TERRENCE FLAHERTY
SIGNATURE:	/Terrence M. Flaherty/
DATE SIGNED:	04/21/2015

PATENT 503272575 REEL: 035456 FRAME: 0984

Total Attachments: 9 source=T-9612B ART ASG#page1.tif source=T-9612B ART ASG#page2.tif source=T-9612B ART ASG#page3.tif source=T-9612B ART ASG#page4.tif source=T-9612B ART ASG#page5.tif source=T-9612B ART ASG#page6.tif source=T-9612B ART ASG#page7.tif source=T-9612B ART ASG#page8.tif source=T-9612B ART ASG#page8.tif source=T-9612B ART ASG#page9.tif

NON- PROVISIONAL APPLICATION ASSIGNMENT TO ADVANCED REFINING TECHNOLOGIES, LLC

Inventor or Inventors:					
Xianghua YU	Bruno NESCI	Colleen MIEDONA			
Shuguang ZHANG	Henry SATERNUS				
Gill MALICK	Cecelia RADLOWSKI	**************************************			

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned person(s) named above, herein referred to as UNDERSIGNED, hereby agree(s) as follows:

- (1) UNDERSIGNED hereby assign(s) to Advanced Refining Technologies LLC, a corporation organized and existing under the laws of the State of Delaware, its successors 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:
 - (a) inventions described in the patent application entitled, HIGH ACTIVITY HYDROTREATING CATALYSTS; said application being further identified as U.S. Application Serial No. 14/261,346, filed in the United States Patent and Trademark Office on 4/24/2014 and having Docket No. T-9612B;
 - (b) inventions claimed in any non-provisional:
 - (i) application, such as design, or regular utility patent application, continuing application (e.g., in whole or in-part), divisional application, reissue or re-examined patent application, or any patent application for substitution, importation, improvement, or addition, utility model, or inventors certificates; and/or
 - (ii) patent issuing from any of the above applications of 1(b)(i), and/or any other type of patent issued in countries anywhere in the world;

wherein said application and/or patent of 1(b)(i) or (ii)

- (A) directly claims priority to the Application of (a); or
- (B) indirectly claims priority to the Application of 1(a) (e.g., any application or patent claiming priority to one or more applications or patents, that directly or indirectly claim priority to the Application of 1(a));
- (c) inventions constituting improvements or modifications to any inventions described in the Application of (a) and/or the non-provisional patent application(s) or patents of 1(b); the inventions of 1(a) (b) and (c) being collectively and individually referred to hereinafter as INVENTION(S):

Page 1 of 3

- (d) applications (and patents based thereon) filed under the Patent Cooperation Treaty (PCT), and/or treaties, conventions or compacts of other regions (including e.g., European Patent, Eurasian Patent, ARIPO Patent and OAPI Patent) covering said INVENTION(S); and
- rights of priority created by said application(s) or patents under provisions of international conventions 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(S) and any continuations, re-examinations or re-issues of such applications or substitutes therefore 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(S) 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(S) 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 these assignments had not been made.
- (5) UNDERSIGNED hereby authorize(s) ASSIGNEE's attorney to insert at paragraph 1, in this instrument, the filing date(s) on which UNDERSIGNED executed a Declaration for any of the above-referenced patent applications, if any, as well as the filing date and application number thereof when known.

ASSIGNMENT

Attorney Docket No. T-96128

IN WITNESS WHEREOF, this assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED's NAME.

Date	***************************************	Inventor		(LS)	Witness	***************************************
Date	3/5/20/5	Inventor _	Xianghua YU Shuguang ZHANG	- (LS)	Witness	ESP-
Date		Inventor		(LS)	Witness	
			Gill MALICK			
Date		Inventor		(LS)	Witness	
			Bruno NESCI			
Date		Inventor		(LS)	Witness	
			Henry SATERNUS			
Date		Inventor		(LS)	Witness	
			Cecelia RADLOWSKI			
Date	······	Inventor	` 	(LS)	Witness	~~
			Colleen MIEDONA			

NON- PROVISIONAL APPLICATION ASSIGNMENT TO <u>ADVANCED REFINING TECHNOLOGIES, LLC</u>

Inventor or Inventors:					
Xianghua YU	Bruno NESCI	Colleen MIEDONA			
Shuguang ZHANG	Henry SATERNUS				
GIII MALICK	Cecelia RADLOWSKI				

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 - (b) inventions claimed in any non-provisional:
 - application, such as design, or regular utility patent application, continuing application (e.g., in whole or in-part), divisional application, reissue or re-examined patent application, or any patent application for substitution, importation, improvement, or addition, utility model, or inventors certificates; and/or
 - (ii) patent issuing from any of the above applications of 1(b)(i), and/or any other type of patent issued in countries anywhere in the world;

wherein said application and/or patent of 1(b)(i) or (ii)

- (A) directly claims priority to the Application of (a); or
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- (c) inventions constituting improvements or modifications to any inventions described in the Application of (a) and/or the non-provisional patent application(s) or patents of 1(b); the inventions of 1(a) (b) and (c) being collectively and individually referred to hereinafter as INVENTION(S);

Page 1 of 3

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- (3) UNDERSIGNED agree(s) that in the event of any application based on said assigned INVENTION(S) 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.
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Date		nventor	<u></u>	(LS)	Witness	Within the second secon
			Xianghua YU			
Date	lr	nventor		(LS)	Witness	
			Shuguang ZHANG			, record
Date	3/9/2015.	nventor	Gell Malich	(LS)	Witness	Jenie Talem
			GIII MALICK			Carre
Date	3/5/2015 11	nventor «	La Non	(LS)	Witness	Janie Palsomo
			Bruno NESCI ,			V
Date	3/5/2015 11	nventor	Hy Jet	(LS)	Witness	June Palermo
			Henry SATERNUS			
Date	3/5/2015 1	nventor	Cecelia Radlowk	J. KS)	Witness	Some Paleins
			Cecelia RADLOWSKI			
Date	3 5 2015 1	inventor	Vallon Mudorg	(LS)	Witness	Josef Paleins
			Colleen MIEDONA			Same of the second of the seco

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REEL: 035456 FRAME: 0991

NON- PROVISIONAL APPLICATION ASSIGNMENT ADVANCED REFINING TECHNOLOGIES, LLC

Inventor or Inventors:					
Xianghua YU	Bruno NESCI	Colleen MIEDONA			
Shuguang ZHANG	Henry SATERNUS				
Gill MALICK	Cecelia RADLOWSKI				

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 - inventions described in the patent application entitled, HIGH ACTIVITY (a) HYDROTREATING CATALYSTS; said application being further identified as U.S. Application Serial No. 14/261,346, filed in the United States Patent and Trademark Office on 4/24/2014 and having Docket No. T-9612B:
 - (b) inventions claimed in any non-provisional:
 - application, such as design, or regular utility patent application, continuing application (e.g., in whole or in-part), divisional application, reissue or re-examined patent application, or any patent application for substitution, importation, improvement, or addition, utility model, or inventors certificates; and/or
 - patent issuing from any of the above applications of 1(b)(i), and/or (ii) any other type of patent issued in countries anywhere in the world;

wherein said application and/or patent of 1(b)(i) or (ii)

- directly claims priority to the Application of (a); or (A)
- indirectly claims priority to the Application of 1(a) (e.g., any (B) application or patent claiming priority to one or more applications or patents, that directly or indirectly claim priority to the Application of 1(a));
- inventions constituting improvements or modifications to any inventions (c) described in the Application of (a) and/or the non-provisional patent application(s) or patents of 1(b); the inventions of 1(a) (b) and (c) being collectively and individually referred to hereinafter as INVENTION(S);

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Attorney Docket No. T-9612B

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Date	<i>03/05/2015</i> inver	ntor	<i>Quighu</i> La Xianghua YU	(LS)	Witness	hangen
Date	lnver	ntor	Shuguang ZHANG	(LS)	Witness	
Date	Inver	ntor		(LS)	Wiiness	
Date	Inve	ritor	Gill MALICK	(LS)	Witness	
Date	Inve	ntor	Bruno NESCI	(LS)	Witness	
Date	lnve	ntor	Henry SATERNUS	(LS)	Witness	
Date	inve	entor	Cecelia RADLOWSKI	(LS)	Witness	
			Colleen MIEDONA			

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