505743362 10/28/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5790175

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
TAO ZHANG	10/14/2019
MAO YE	10/14/2019
ZHONGMIN LIU	10/14/2019
JINLING ZHANG	10/14/2019
HAILONG TANG	10/14/2019
JINMING JIA	10/14/2019
CHANGQING HE	10/14/2019
XIANGAO WANG	10/14/2019
CHENG ZHANG	10/14/2019
HUA LI	10/14/2019
YINFENG ZHAO	10/14/2019
CHENGGONG LI	10/14/2019

### **RECEIVING PARTY DATA**

Name:	DALIAN INSTITUTE OF CHEMICAL PHYSICS, CHINESE ACADEMY OF SCIENCES
Street Address:	NO. 457 ZHONGSHAN ROAD
City:	DALIAN, LIAONING
State/Country:	CHINA
Postal Code:	116023

# **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16608422

### **CORRESPONDENCE DATA**

**Fax Number:** (703)991-7071

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:** 703-740-8322

Email: patent@maierandmaier.com
Correspondent Name: MAIER & MAIER, PLLC

Address Line 1: 345 SOUTH PATRICK STREET

PATENT REEL: 050838 FRAME: 0151

505743362

Address Line 4: ALEXANDRIA, VIRGINIA 22314		
ATTORNEY DOCKET NUMBER:	12040013US	
NAME OF SUBMITTER:	CHRISTOPHER J. MAIER	
SIGNATURE:	/Christopher J. Maier/	
DATE SIGNED:	10/25/2019	
Total Attachments: 12	·	
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Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

<u>DECLARATION</u>
As a below named inventor, I hereby declare that:
This declaration is directed to:
The attached application, or United States application or PCT international application number, filed on
The above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understood the contents of the above-identified application, including the claims, and any claim amendments made in the application. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.
1 hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (3) years, or both.
ASSIGNMENT
WHEREAS, 1, Tao ZHANG, whose post office address is 457 Zhongshan Road, Dalian City, Liaoning Province 116023, China, hereinafter referred to as ASSIGNOR, am the owner of useful improvements in FLUIDIZED RED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL. ETHER AND BENZENE (hereinafter referred to as the Invention) for which the above application for United States Letters Patent was filed on October 25, 2019Serial No.: 16/608,422; or established by PCT International Patent Application No.: designating the United States of America;
WHEREAS, <u>DALJAN INSTITUTE OF CHEMICAL PHYSICS</u> , <u>CHINESE ACADEMY OF SCIENCES</u> , whose post office address is <u>No. 457 Zhongshan Road</u> , <u>Dalian City</u> , <u>Liaoning Province 116023</u> , <u>China</u> , hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States:
NOW. THEREPORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application.
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents and information concerning the INVENTION that are within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's heirs, executors, administrators and other legal representatives.
ALSO, ASSIGNOR hereby authorizes and requests the Director of the U.S. Patent and Trademark office to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and behoof, and for the use and behoof of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.
ASSIGNOR authorizes any member of the firm of Maier & Maier, PLLC to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.
Legal Name of Inventor: Tao ZHANG
X Tao ZHWG X Oct. 14, 2019  Inventor's Signature Date

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

As a below named inventor, I hereby declare that:
This declaration is directed to:
The attached application, or
United States application or PCT international application number, filed on
The above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understood the contents of the above-identified application, including the claims, and any claim amendments made in the application. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.
ASSIGNMENT
WHEREAS, I, Mao YE, whose post office address is 457 Zhongshan Road, Dalian City, Liaoning Province 116023, China, hereinafter referred to as ASSIGNOR, am the owner of useful improvements in FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE (hereinafter referred to as the INVENTION) for which the above application for United States Letters Patent was filed on: October 25, 2019 Serial No.: 16/608,422 ; or established by PCT International Patent Application No.: filed: designating the United States of America;
WHEREAS, <u>DALIAN INSTITUTE OF CHEMICAL PHYSICS</u> , <u>CHINESE ACADEMY OF SCIENCES</u> , whose post office address is <u>No. 457 Zhongshan Road</u> , <u>Dalian City</u> , <u>Liaoning Province 116023</u> , <u>China</u> , hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States;
NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said EVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application.
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents and information concerning the INVENTION that are within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's heirs, executors, administrators and other legal representatives.
ALSO, ASSIGNOR hereby authorizes and requests the Director of the U.S. Patent and Trademark office to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE'S sole use and behoof, and for the use and behoof of ASSIGNEE'S legal representatives and successors, to the full cud of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.
ASSIGNOR authorizes any member of the firm of Maier & Maier, PLLC to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.
Legal Name of Inventor: Mao YE
X Date X Date
Inventor's Signature Date

### DECLARATION AND ASSIGNMENT

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

DECLARATION	
As a below named inventor, I hereby declare that: This declaration is directed to:	
The attached application, or United States application or PCT international application or	umber, filed on
The above-identified application was made or authorized to be made by me inventor of a claimed invention in the application. I have reviewed and un including the claims, and any claim amendments made in the application. I material to patentability as defined in 37 CFR 1.56.  I hereby acknowledge that any willful false statement made in this decimprisonment of not more than five (5) years, or both.	derstood the contents of the above-identified application, acknowledge the duty to disclose all information which is
ASSIGNMENT	
WHEREAS, I. Zhongmin LIU, whose post office address is 457 Zhongshan Rehereinafter referred to as ASSIGNOR, am the owner of useful improvements in PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEF ETHER AND BENZENE (hereinafter referred to as the lavention) for which the was filed on: October 25, 2019 Serial No.: 16/608,422	FLUIDIZED BED DEVICE AND METHOD FOR INS. FROM METHANOL AND/OR DIMETHYL. he above application for United States Letters Patent established by PCT International Patent Application
WHEREAS, <u>DALIAN INSTITUTE OF CHEMICAL PHYSICS</u> , <u>CHINESE</u> is <u>No. 457 Zhongshan Road</u> , <u>Dalian City</u> , <u>Liaoning Province 116023</u> , <u>China</u> , he the entire right, title and interest in and to the same in the United States;	ACADEMY OF SCIENCES, whose post office address reinafter referred to as ASSIGNEE, is desirous of acquiring
NOW, THEREFORE, for good and valuable consideration, receipt of which do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and inter the United States of America, including any and all Letters Patent granted on an of said application.	est in and to said INVENTION and application throughout
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may maintenance of said application or any other patent application(s) in the United 5 that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, without further consideration and at ASSIGNEE's expense, to identify and com and information concerning the INVENTION that are within ASSIGNOR's possetestimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR is any patent application or patent encompassed within the terms of this instrument of the ASSIGNOR's heirs, executors, administrators and other legal representations.	States for said INVENTION, including additional documents all without further consideration. ASSIGNOR also agrees, municate to ASSIGNEE at ASSIGNEE's request documents ession or control, and to provide further assurances and a respect of the prosecution, maintenance and defense of lent. ASSIGNOR'S obligations under this instrument shall
ALSO, ASSIGNOR hereby authorizes and requests the Director of the U.S. Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and behoof, and for the use and behoof of ASSIGNEE's legal representatives at Letters Patent may be granted, as fully and entirely as the same would have been made.	and interest in and to the same, for ASSIGNEE's sole use ad successors, to the full end of the term for which such
ASSIGNOR authorizes any member of the firm of Maier & Maier, PLLC needed to effect its recordal in the U.S. Patent and Trademark Office.	to insert or complete any information in this document
Legal Name of Inventor: Zhongmin LIU	
Eggal Name of Inventor: Zhongmin LIU  X Inventor's Signature	x 0(6,14,2019
Inventor's Signature	Date

# DECLARATION AND ASSIGNMENT

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

DEC	LARATION
As a below named inventor, I hereby declare that:	
This declaration is directed to:  The attached application, or	
	d application number, filed on
inventor of a claimed invention in the application. I have reincluding the claims, and any claim amendments made in the material to patentability as defined in 37 CFR 1.56.	be made by me. I believe I am the original inventor or an original joint viewed and understood the contents of the above-identified application, application. I acknowledge the duty to disclose all information which is
I hereby acknowledge that any willful false statement ma imprisonment of not more than five (5) years, or both.	de in this declaration is punishable under 18 USC 1001 by fine or
ASS	HGNMENT
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WHEREAS, <u>DALIAN INSTITUTE OF CHEMICAL PHYS</u> is <u>No. 457 Zhongshan Road</u> , <u>Dalian City</u> , <u>Liaoning Province 11</u> ; the entire right, title and interest in and to the same in the Unite	ICS. CHINESE ACADEMY OF SCIENCES, whose post office address 6023. China, hereinafter referred to as ASSIGNEE, is desirous of acquiring d States;
do sell, assign and transfer unto said ASSIGNEE, the entire right	receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents, title, and interest in and to said INVENTION and application throughout at granted on any division, continuation, continuation-in-part and reissue
maintenance of said application or any other patent application(s that may be required to affirm the rights of ASSIGNEE in and to s without further consideration and at ASSIGNEE's expense, to id and information concerning the INVENTION that are within AS testimony on behalf of ASSIGNEE that lawfully may be required	nat legally may be required in connection with the filing, prosecution and ) in the United States for said INVENTION, including additional documents aid INVENTION, all without further consideration. ASSIGNOR also agrees, entify and communicate to ASSIGNEE at ASSIGNEE's request documents SSIGNOR's possession or control, and to provide further assurances and of ASSIGNOR in respect of the prosecution, maintenance and defense of of this instrument. ASSIGNOR's obligations under this instrument shall legal representatives.
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ASSIGNOR authorizes any member of the firm of Maier & needed to effect its recordal in the U.S. Patent and Trademark C	k Maier, PLLC to insert or complete any information in this document.  Office.
Legal Name of Inventor: Jinling ZHANG	
x Jioling ZHANG	x Oct. 14, 2019
Inventor's Signature	Date

# DECLARATION AND ASSIGNMENT

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

DECLARATION			
As a below named inventor, I hereby declare that:			
This declaration is directed to:			
The attached application, or United States application or PCT international application	number	Filed on	
(1) United States approach of TC1 into national approach	tuttivet	, ched on	www.commerce.
The above-identified application was made or authorized to be made by m inventor of a claimed invention in the application. I have reviewed and m including the claims, and any claim amendments made in the application. I material to patentability as defined in 37 CFR 1.56.  I hereby acknowledge that any willful false statement made in this de	nderstood the co acknowledge th	ontents of the above-identified the duty to disclose all information	application, on which is
imprisonment of not more than five (5) years, or both.			
ASSIGNMENT			
WHEREAS, I, Hailong TANG, whose post office address is 457 Zhongshan Is thereinafter referred to as Assignor, am the owner of useful improvements in PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEF ETHER AND BENZENE (hereinafter referred to as the INVENTION) for which was filed on: October 25, 2019 Serial No.: 16/608,422 or No.: filed: designating the United States	FLUIDIZED B INS FROM M the above applic established by	ED DEVICE AND METHOD ETHANOL AND/OR DIMET ation for United States Letters P	FOR HYL atent
WHEREAS, <u>DALIAN INSTITUTE OF CHEMICAL PHYSICS</u> , <u>CHINES</u> is <u>No. 457 Zhongshan Road</u> , <u>Dalian City</u> , <u>Linoning Province 116023</u> , <u>China</u> , be the entire right, title and interest in and to the same in the United States;			
NOW, THEREFORE, for good and valuable consideration, receipt of whic do sell, assign and transfer unto said Assignee, the entire right, title, and intended the United States of America, including any and all Letters Patent granted on a of said application.	crest in and to sa	id INVENTION and application th	roughout
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may maintenance of said application or any other patent application(s) in the United that may be required to affirm the rights of ASSIGNEE in and to said INVENTION without further consideration and at ASSIGNEE's expense, to identify and cor and information concerning the INVENTION that are within ASSIGNOR's poss testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR any patent application or patent encompassed within the terms of this instrumented to ASSIGNOR's heirs, executors, administrators and other legal represent	States for said Is I, all without furth numunicate to Assession or control in respect of the ment. Assignor	ivention, including additional d her consideration. Assignor al istgned at Assignee's request d Il, and to provide further assure prosecution, maintenance and a	ocuments so agrees, ocuments ances and defense of
ALSO, ASSIGNOR hereby authorizes and requests the Director of the U.S. Parent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, till and behoof; and for the use and behoof of ASSIGNEE's legal representatives a Letters Patent may be granted, as fully and entirely as the same would have been made.	e and interest in and successors, t	and to the same, for ASSIGNEE's o the full end of the term for w	s sole use hich such
ASSIGNOR authorizes any member of the firm of Maler & Maier, PLLC needed to effect its recordal in the U.S. Patent and Trademark Office.	I to insert or co	implete any information in this o	document
Legal Name of Inventor: Hailong TANG		***************************************	************
x Hailong TANG	x 0	lt. 14,2019	
Inventor's Signature	Date	iini-ria-ra-rà-an-ain-an-an-i-f-ia-an-an-ai-f-ia-an-an-an-ai-	

Attorney Docket No. 12040013US

# DECLARATION AND ASSIGNMENT

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

DECL	ARATION
As a below named inventor, I hereby declare that: This declaration is directed to:	
The attached application, or	
- <u>10.000</u>	application number, filed on
inventor of a claimed invention in the application. I have rev	made by me. I believe I am the original inventor or an original joint ewed and understood the contents of the above-identified application, plication. I acknowledge the duty to disclose all information which is
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	S. CHINESE ACADEMY OF SCIENCES, whose post office address 23, China, hereinafter referred to as ASSIGNEE, is desirous of acquiring States;
do sell, assign and transfer unto said ASSIGNEE, the entire right,	reipt of which is hereby acknowledged, I, ASSIGNOR, by these presents itle, and interest in and to said INVENTION and application throughout granted on any division, continuation, continuation-in-part and reissue
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ASSIGNOR authorizes any member of the firm of Maier & needed to effect its recordal in the U.S. Patent and Trademark Of	Maier, PLLC to insert or complete any information in this document ice.
Legal Name of Inventor: Jinming IIA	
x Jinming JIA	x Oct. 14, 2019
A 30 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	X V(T, 14-, 20))

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The attached application, or United States application or PCT international application number, filed on,
The above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original join inventor of a claimed invention in the application. I have reviewed and understood the contents of the above-identified application including the claims, and any claim amendments made in the application. I acknowledge the duty to disclose all information which i material to patentability as defined in 37 CFR 1.56.
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine of imprisonment of not more than five (5) years, or both.
ASSIGNMENT
WHEREAS, I, Changging HE, whose post office address is 457 Zhongshan Road, Dalian City, Liaoning Province 116023, China, hereinafter referred to as ASSIGNOR, am the owner of useful improvements in FLUIDIZED BED DRVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE (hereinafter referred to as the INVENTION) for which the above application for United States Letters Patent was filed on: October 25, 2019 Serial No.: 16/608,422
WHEREAS, DALIAN INSTITUTE OF CHEMICAL PHYSICS, CHINESE ACADEMY OF SCIENCES, whose post office address is No. 457 Zhongshan Road, Dalian City, Liaoning Province 116023, China, hereinafter referred to as Asstones, is desirous of acquiring the entire right, title and interest in and to the same in the United States;
NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I. ASSIGNOR, by these presents do sell, assign and transfer anto said ASSIGNER, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application.
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents and information concerning the INVENTION that are within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR'S obligations under this instrument shall extend to ASSIGNOR's heirs, executors, administrators and other legal representatives.
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ASSIGNOR authorizes any member of the firm of Maier & Maier, PLLC to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.
Legal Name of Inventor: Changging HE
x Changeing HE x 0(t.14,2019
Inventor's Signature Date

### DECLARATION AND ASSIGNMENT

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

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<u>ASSIGNMENT</u>
WHEREAS, I, Xiangao WANG, whose post office address is 457 Zhongshan Road, Dalian City, Liaoning Province 116023, China, hereinafter referred to as ASSIGNOR, am the owner of useful improvements in FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE (hereinafter referred to as the Invention) for which the above application for United States Letters Patent was filed on: October 25, 2019 Serial No.: 16/608,422
WHEREAS, <u>DALIAN INSTITUTE OF CHEMICAL PHYSICS</u> , <u>CHINESE ACADEMY OF SCIENCES</u> , whose post office address is <u>No. 457 Zhongshan Road</u> , <u>Dalian City</u> , <u>Liaoning Province 116023</u> , <u>China</u> , hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States;
NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application.
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents and information concerning the INVENTION that are within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's heirs, executors, administrators and other legal representatives.
ALSO, ASSIGNOR hereby authorizes and requests the Director of the U.S. Patent and Trademark office to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.
ASSIGNOR authorizes any member of the firm of Maier & Maier, PLLC to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.
Legal Name of Inventor: Xiangao WANG
X X CANGAR WANG  X X CANGAR WANG  Inventor's Signature O Date

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

DECL	ARATION		
As a below named inventor, I hereby declare that: This declaration is directed to:			
The attached application, or			
United States application or PCT international	application number	, filed on	innennannannannannannannannannannannannan
The above-identified application was made or authorized to be inventor of a claimed invention in the application. I have revisincluding the claims, and any claim amendments made in the apmaterial to patentability as defined in 37 CFR 1.56.	ewed and understood	the contents of the above-iden	ntified application,
I hereby acknowledge that any willful false statement made imprisonment of not more than five (5) years, or both.	in this declaration i	s punishable under 18 USC	1001 by fine or
ASSU	GNMENT		
WHEREAS, I, Cheng ZHANG, whose post office address is 457; hereinafter referred to as ASSIGNOR, am the owner of useful impreparating P-XYLENE AND CO-PRODUCING LOWCAR ETHER AND BENZENE (hereinafter referred to as the INVENTION was filed on: October 25, 2019, Serial No.: 16/608, 422 No.: filed: designating the U	ovements in FLUIDIZ BON OLEFINS FRO  i) for which the above or establishe	ED BED DEVICE AND ME M METHANOL AND/OR E application for United States Le d by PCT International Patent	THOD FOR DIMETHYL etters Patent
WHERBAS, DALIAN INSTITUTE OF CHEMICAL PHYSIC is No. 457 Zhongshan Road, Dalian City, Liaoning Province 1160 the entire right, title and interest in and to the same in the United 5	<u>23, China,</u> hereinafter i		
NOW, THEREFORE, for good and valuable consideration, red do sell, assign and transfer unto said ASSIGNEE, the entire right, the United States of America, including any and all Letters Patent of said application.	itle, and interest in and	l to said INVENTION and applic	ation throughout
ALSO, ASSIGNOR hereby agrees to execute any documents that maintenance of said application or any other patent application(s) is that may be required to affirm the rights of ASSIGNEE in and to sai without further consideration and at ASSIGNEE'S expense, to idea and information concerning the INVENTION that are within ASSI testimony on behalf of ASSIGNEE that lawfully may be required of any patent application or patent encompassed within the terms of extend to ASSIGNOR'S heirs, executors, administrators and other left.	n the United States for: d INVENTION, all withoutly and communicate GNOR'S possession or f ASSIGNOR in respect f this instrument. ASS	said Invention, including addit of further consideration. Assign to Assignee at Assignee's re- control, and to provide further of the prosecution, maintenance	tional documents SNOR also agrees, quest documents r assurances and the and defense of
ALSO, ASSIGNOR hereby authorizes and requests the Director Patent referred to above to ASSIGNEE, as the ASSIGNEE of the ent and behoof, and for the use and behoof of ASSIGNEE'S legal represented as the same been made.	ire right, title and inter esentatives and success	est in and to the same, for Ass sors, to the full end of the tern	GIGNEE's sole use tor which such
ASSIGNOR authorizes any member of the firm of Maier & needed to effect its recordal in the U.S. Patent and Trademark Off		or complete any information i	n this document
Legal Name of Inventor: Cheng ZHANG			
x Cheer ZHANG	X	Oct. 14,2019	
Inventoria Cionatuma	Data	*	

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

DECLARATION
As a below named inventor, I hereby declare that:
This declaration is directed to:
The attached application, or United States application or PCT international application number
The above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understood the contents of the above-identified application, including the claims, and any claim amendments made in the application. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.
hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.
ASSIGNMENT
WHEREAS, I. Hua LI. whose post office address is 457 Zhongshan Road, Dalian City, Liaoning Province 116023, China, hereinafter efferred to as Assignor, am the owner of useful improvements in FLUIDIZED BED DEVICE AND METHOD FOR PREPARING -XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND ENZENE (hereinafter referred to as the INVENTION) for which the above application for United States Letters Patent was filed on: or established by PCT International Patent Application No.: filed; esignating the United States of America;
WHEREAS, <u>DALIAN INSTITUTE OF CHEMICAL PHYSICS. CHINESE ACADEMY OF SCIENCES</u> , whose post office address to No. 457 Zhongshan Road, <u>Dalian City, Liaoning Province 116023, China</u> , hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States;
NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents to sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application.
ALSO, Assignor hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said Invention, including additional documents hat may be required to affirm the rights of Assignee in and to said Invention, all without further consideration. Assignor also agrees, without further consideration and at Assignee's expense, to identify and communicate to Assignee at Assignee's request documents and information concerning the Invention that are within Assignor's possession or control, and to provide further assurances and estimony on behalf of Assignee that lawfully may be required of Assignor in respect of the prosecution, maintenance and defense of may patent application or patent encompassed within the terms of this instrument. Assignor's obligations under this instrument shall extend to Assignor's heirs, executors, administrators and other legal representatives.
ALSO, ASSIGNOR hereby authorizes and requests the Director of the U.S. Patent and Trademark office to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE's sole use and behoof, and for the use and behoof of ASSIGNEE's legal representatives and successors, to the full end of the term for which such actions Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not seen made.
ASSIGNOR authorizes any member of the firm of Maler & Maler, PLLC to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.
egal Name of Inventor: Hea LI
X Hua L] X 065.14, 2019
nventor's Signature Date

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

DECLARA	TION
As a below named inventor, I hereby declare that:	
This declaration is directed to:	
The attached application, or United States application or PCT international applic	cation number, filed on
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The above-identified application was made or authorized to be made inventor of a claimed invention in the application. I have reviewed including the claims, and any claim amendments made in the applica material to patentability as defined in 37 CFR 1.56.	and understood the contents of the above-identified application, tion. I acknowledge the duty to disclose all information which is
I hereby acknowledge that any willful false statement made in t imprisonment of not more than five (5) years, or both.	his declaration is punishable under 18 USC 1001 by fine or
ASSIGNM	ENT
WHEREAS, I. Yinfeng ZHAO, whose post office address is 457 Zhou hereinafter referred to as ASSIGNOR, am the owner of useful improven PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON ETHER AND BENZENE (hereinafter referred to as the INVENTION) for was filed on: October 25, 2019 Serial No.: 16/608,422  No.:filed:	nents in FLUIDIZED BED DEVICE AND METHOD FOR OLEFINS FROM METHANOL AND/OR DIMETHYL, which the above application for United States Letters Patent ; or established by PCT International Patent Application
WHEREAS, <u>DALIAN INSTITUTE OF CHEMICAL PHYSICS</u> , CI is <u>No. 457 Zhongshan Road</u> , <u>Dalian City</u> , <u>Liaoning Province 116023</u> , C the entire right, title and interest in and to the same in the United States	hina, hereinafter referred to as ASSIGNEE, is desirous of acquiring
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ALSO, ASSIGNOR hereby agrees to execute any documents that legal maintenance of said application or any other patent application(s) in the that may be required to affirm the rights of ASSIGNEE in and to said INV without further consideration and at ASSIGNEE's expense, to identify a and information concerning the INVENTION that are within ASSIGNOR testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNEE that application or patent encompassed within the terms of this extend to ASSIGNOR's heirs, executors, administrators and other legal to	United States for said INVENTION, including additional documents ENTION, all without further consideration. ASSIGNOR also agrees, and communicate to ASSIGNEE at ASSIGNEE'S request documents is possession or control, and to provide further assurances and HONOR in respect of the prosecution, maintenance and defense of instrument. ASSIGNOR'S obligations under this instrument shall
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ASSIGNOR authorizes any member of the firm of Maier & Maier needed to effect its recordal in the U.S. Patent and Trademark Office,	r, PLLC to insert or complete any information in this document
Legal Name of Inventor: Yinfeng ZHAO	
x Yinfers 2.440 Inventor's Signature	x Oct. 14, 2019
Inventor's Signature	Date

Title of Invention: FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE

DECLARATION
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This declaration is directed to:
The attached application, or United States application or PCT international application number
The above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understood the contents of the above-identified application, including the claims, and any claim amendments made in the application. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.  I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or
imprisonment of not more than five (5) years, or both.
ASSIGNMENT
WHEREAS, I, Chenggong LI, whose post office address is 457 Zhongshan Road, Dalian City, Liaoning Province 116023, China, hereinafter referred to as ASSIGNOR, am the owner of useful improvements in FLUIDIZED BED DEVICE AND METHOD FOR PREPARING P-XYLENE AND CO-PRODUCING LOWCARBON OLEFINS FROM METHANOL AND/OR DIMETHYL ETHER AND BENZENE (hereinafter referred to as the INVENTION) for which the above application for United States Letters Patent was filed on: October 25, 2019 Serial No.: 16/608,422
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ASSIGNOR authorizes any member of the firm of Maier & Maier, PLLC to insert or complete any information in this document needed to effect its recordal in the U.S. Patent and Trademark Office.
Legal Name of Inventor. Chenggong LI
X Changgong 11 X Oct 14, 2019 Inventor's Signature Date

PATENT REEL: 050838 FRAME: 0164

**RECORDED: 10/28/2019**