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| PATENT ASSIGNMENT COVER SHEET |
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 Stylesheet Version v1.2

EPAS ID: PAT4424017

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|---|----------------------------------|
| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| PAUL F. KEUSENKOTHEN | 05/01/2017 |
| SAMIA ILIAS | 03/31/2017 |
| JOHN SCOTT BUCHANAN | 03/31/2017 |
| MAYANK SHEKHAR | 04/04/2017 |
| REYYAN KOC-KARABOCEK | 04/14/2017 |
| TENG XU | 04/03/2017 |
| RECEIVING PARTY DATA | |
| Name: | EXXONMOBIL CHEMICAL PATENTS INC. |
| Street Address: | 5200 BAYWAY DRIVE |
| City: | BAYTOWN |
| State/Country: | TEXAS |
| Postal Code: | 77520 |
| PROPERTY NUMBERS Total: 1 | |
| Property Type | Number |
| Application Number: | 15469725 |
| CORRESPONDENCE DATA | |
| Fax Number: | (281)834-1231 |
| <i>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.</i> | |
| Phone: | 281-834-1883 |
| Email: | jennifer.s.lewis@exxonmobil.com |
| Correspondent Name: | EXXONMOBIL CHEMICAL COMPANY |
| Address Line 1: | 5200 BAYWAY DRIVE |
| Address Line 2: | P.O. BOX 2149 |
| Address Line 4: | BAYTOWN, TEXAS 77522-2149 |
| ATTORNEY DOCKET NUMBER: | 2016EM057/2 |
| NAME OF SUBMITTER: | GERARD J. HUGHES |
| SIGNATURE: | /Gerard J. Hughes/ |
| DATE SIGNED: | 05/22/2017 |

Total Attachments: 15

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ASSIGNMENT

INVENTOR(S):

Paul F. Keusenkothen

Samia Ilias

John Scott Buchanan

Mayank Shekhar

Reyyan Koc-Karabocek

Teng Xu

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of and/or promise of payment 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 ExxonMobil Chemical Patents Inc., 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:

"Catalytic Aromatization "

and being further identified as USSN Application No.: 15/469,725; Atty. Docket No. 2016EM057/2, filed, March 27, 2017, and all rights of priority created by said application 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 or improvement, and any continuations 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 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.
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- 5) UNDERSIGNED hereby authorize(s) ASSIGNEE'S attorney to insert at paragraph 1, in this instrument the date on which the above-referenced patent application was filed, as well as the application number thereof when known.

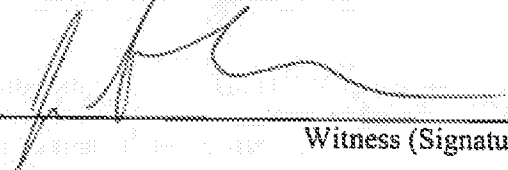
ASSIGNMENT (Cont'd.)

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

DATE 5/1/17


Paul F. Keusenkothen (Inventor)

John Coleman
Witness (Print Name)


Witness (Signature)

DATE _____

Samia Ilias (Inventor)

Witness (Print Name)

Witness (Signature)

DATE _____

John Scott Buchanan (Inventor)

Witness (Print Name)

Witness (Signature)

DATE _____

Mayank Shekhar (Inventor)

Witness (Print Name)

Witness (Signature)

ASSIGNMENT (Cont'd.)

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

DATE _____
Reyyan Koc-Karabocck (Inventor)

Witness (Print Name) Witness (Signature)

DATE _____
Teng Xu (Inventor)

Witness (Print Name) Witness (Signature)

ASSIGNMENT

INVENTOR(S):

| | |
|-----------------------------|-----------------------|
| <u>Paul F. Keusenkothen</u> | <u>Samia Ilias</u> |
| <u>John Scott Buchanan</u> | <u>Mayank Shekhar</u> |
| <u>Reyyan Koc-Karabocek</u> | <u>Teng Xu</u> |

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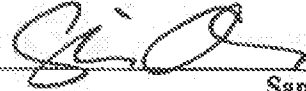
DATE _____

Paul F. Keusenkothen (Inventor)

Witness (Print Name)

Witness (Signature)

DATE 3/31/17



Samia Ilias (Inventor)

Samia Green

Witness (Print Name)



Witness (Signature)

DATE _____

John Scott Buchanan (Inventor)

Witness (Print Name)

Witness (Signature)

DATE _____

Mayank Shekhar (Inventor)

Witness (Print Name)

Witness (Signature)

ASSIGNMENT (Cont'd.)

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

DATE _____
_____ Reyyan Koc-Karabosek (Inventor)

Witness (Print Name) _____ Witness (Signature)

DATE _____
_____ Teng Xu (Inventor)

Witness (Print Name) _____ Witness (Signature)

ASSIGNMENT

INVENTOR(S):

Paul F. Keusenkothen

Samia Ilias

John Scott Buchanan

Mayank Shekhar

Reyyan Koc-Karabocek

Teng Xu

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DATE _____
_____ Paul F. Keusenkothen (Inventor)

Witness (Print Name) _____ Witness (Signature)

DATE _____
_____ Samia Elias (Inventor)

Witness (Print Name) _____ Witness (Signature)

DATE 3/31/2017
_____ John Scott Buchanan
John Scott Buchanan (Inventor)

YUNLONG ZHANG
_____ Witness (Print Name) _____ [Signature]
Witness (Signature)

DATE _____
_____ Mayank Shekhar (Inventor)

Witness (Print Name) _____ Witness (Signature)

ASSIGNMENT (Cont'd.)

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

DATE _____

Reyyan Koc-Karabocek (Inventor)

Witness (Print Name)

Witness (Signature)

DATE _____

Teng Xu (Inventor)

Witness (Print Name)

Witness (Signature)

ASSIGNMENT

INVENTOR(S):

Paul F. Keusenkothen

Samia Ilias

John Scott Buchanan

Mayank Shekhar

Reyyan Koc-Karabocek

Teng Xu

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Witness (Print Name)

Witness (Signature)

DATE _____

Samia Ilias (Inventor)

Witness (Print Name)

Witness (Signature)

DATE _____

John Scott Buchanan (Inventor)

Witness (Print Name)

Witness (Signature)

DATE 4/4/2017

Mayank Shekhar

Mayank Shekhar (Inventor)

TODD DETJEN

Witness (Print Name)

Todd Detjen

Witness (Signature)

ASSIGNMENT (Cont'd.)

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

DATE 04/14/2017


Reyyan Koc-Karabocek (Inventor)

Tonya M. Hebert DONATTO
Witness (Print Name)


Witness (Signature)

DATE _____

Teng Xu (Inventor)

Witness (Print Name)

Witness (Signature)

ASSIGNMENT

INVENTOR(S):

Paul F. Keusenkothen

Samia Ilias

John Scott Buchanan

Mayank Shekhar

Reyyan Koc-Karabocek

Teng Xu

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John Scott Buchanan (Inventor)

Witness (Print Name) Witness (Signature)

DATE _____
Mayank Shekhar (Inventor)

Witness (Print Name) Witness (Signature)

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DATE _____

Reyyan Koc-Karabocek (Inventor)

Witness (Print Name)

Witness (Signature)

DATE

04/03/2017

Teng Xu

Teng Xu (Inventor)

Jeremy Bedard

Witness (Print Name)

[Signature]

Witness (Signature)