

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

Assignment ID: PATI140775

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Merichem Company	12/05/2023
RECEIVING PARTY DATA	
Company Name:	Merichem Technologies, LLC
Street Address:	5450 Old Spanish Trail
City:	Houston
State/Country:	TEXAS
Postal Code:	77023
PROPERTY NUMBERS Total: 14	
Property Type	Number
Application Number:	16203967
Application Number:	16578856
Application Number:	16784049
Application Number:	17129453
Application Number:	17984904
Application Number:	17129565
Application Number:	17536850
Application Number:	17851759
Application Number:	17851523
PCT Number:	US1952584
PCT Number:	US2113664
PCT Number:	US2164390
PCT Number:	US2322876
PCT Number:	US2323986
CORRESPONDENCE DATA	
Fax Number:	
<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>	
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Email:	dmasters@ctumeylawgroup.com

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Address Line 1: P.O. Box 890226
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ATTORNEY DOCKET NUMBER:	1790
NAME OF SUBMITTER:	JANEAN HARGIS
SIGNATURE:	JANEAN HARGIS
DATE SIGNED:	04/03/2024

Total Attachments: 14

source=BBE-Merichem - Patent Rights Assignment Agreement for Published Patents and Apps (part of Exhibit D-2) (Executed)#page1.tif
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PATENT RIGHTS ASSIGNMENT

This Patent Rights Assignment is made effective as of December 31, 2023 (the "Effective Date"), between by and between Merichem Technologies, LLC, a Delaware limited liability company ("Purchaser") and Merichem Company, a Delaware corporation ("Seller"). All capitalized terms not otherwise defined herein shall have the meaning set forth in that certain Asset Purchase Agreement dated as of December 5, 2023, by and between Purchaser and Seller (the "Purchase Agreement").

RECITALS

A. Seller is the owner of all of the patents and patent applications identified on the attached Scheule 1 (the "Patent Assets").

B. Pursuant to the Purchase Agreement Seller has agreed to assign all of its rights in, amongst other things, the inventions set forth in the Patent Assets and all rights arising thereunder to Purchaser.

NOW, THEREFORE, in consideration of the covenants, promises and representations set forth herein and in the Purchase Agreement and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Assignment. For ten dollars (\$10.00) and other good and valuable consideration, receipt of which is hereby acknowledged, Seller hereby assigns to Purchaser, free and clear of any and all Liens, all right, title and interest in and to the Patent Assets, all rights to claim priority in any country on the basis of any of the Patent Assets, and all applications for patent filed or that may hereafter be filed for the invention(s) described in any of the Patent Assets in any and every country, and all patents which may be granted on any such applications, and all divisionals, continuations, reissues, continuations-in-part and international or other patent applications based thereon or claiming the priority thereof anywhere in the world, together with any and all royalties, fees, income, payments and other proceeds now or hereafter due or payable. Seller further assigns to Purchaser all causes of action and associated damages for any and all acts of infringement of any rights that arose or may arise from any and all of the Patent Assets or any patent arising therefrom or from any patent application claiming the benefit of the priority of any of the Patent Assets, that may have occurred prior to the Effective Date.

2. Authorization. The Seller authorizes and requests the United States Patent and Trademark Office and any other patent office anywhere in the world to record the Purchaser as the Purchaser and assignee of the rights of Seller in the Patent Assets and as Purchaser and assignee of the entire right, title and interest therein and thereto.

3. Further Assurances. Each party hereto shall, from time to time and at all times hereafter, upon the request of the other party hereto, do, execute, acknowledge and deliver or cause to be done, executed, acknowledged and delivered all such further acts, deeds, assignments, transfers, conveyances, and assurances as may be required to carry out the intent of this Patent Rights Assignment. Without limiting the foregoing, the Seller agrees, without additional consideration, to take such further actions and to execute any applications, assignments, declarations, affidavits and other papers necessary or desirable to transfer, vest, record and perfect good, valid and marketable title in the Patent Assets to the Purchaser.

4. Terms of the Purchase Agreement. Each of the parties acknowledges and agrees that neither the representations and warranties nor the rights and remedies of the parties under the Purchase Agreement shall be deemed to be enlarged, modified or altered in any way by this Patent Rights Assignment, and, to the extent there shall arise a conflict between this Patent Rights Assignment and the Purchase Agreement, the

Purchase Agreement shall control. The Parties acknowledge and agree that the representations, warranties, covenants, agreements and indemnities set forth in the Purchase Agreement are not superseded hereby and shall remain in full force and effect.

5. Governing Law. This Patent Rights Assignment shall be governed by the laws of the State of Delaware without regard to its conflict of laws principles.

6. Severability. Any term or provision of this Patent Rights Assignment that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction.

7. Amendment, Waiver, etc. No amendment, modification or discharge of this Patent Rights Assignment, and no waiver hereunder, shall be valid or binding unless set forth in writing and duly executed by the Party against whom enforcement of such amendment, modification, discharge or waiver is sought.

8. Binding Effect; Patent Rights Assignment. This Patent Rights Assignment shall be binding upon, inure to the benefit of and be enforceable by the parties hereto and their respective successors and assigns; provided, however, that Seller may not assign this Patent Rights Assignment to any person (it being understood by the parties hereto that any purported Patent Rights Assignment by Seller shall be null and void).

9. Third-Party Beneficiaries. Nothing in this Patent Rights Assignment, express or implied, is intended or shall be construed to create any third-party beneficiaries.

10. Counterparts; Facsimiles. This Patent Rights Assignment may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which taken together shall constitute one and the same instrument, respectively. Executed copies of the signature pages of this Patent Rights Assignment sent by facsimile or transmitted electronically Portable Document Format (“PDF”) shall be treated as originals, fully binding and with full legal force and effect, and the Parties waive any rights they may have to object to such treatment. Any Party delivering an executed counterpart of this Patent Rights Assignment by facsimile or PDF also may deliver a manually executed counterpart of this Patent Rights Assignment, but the failure to deliver a manually executed counterpart shall not affect the validity, enforceability, and binding effect of this Patent Rights Assignment.


(Signature Page Follows)

IN WITNESS WHEREOF, the Parties have executed this Patent Rights Assignment as of the Effective Date above.

PURCHASER:

MERICHEM TECHNOLOGIES, LLC

By: Merichem Technologies HoldCo, LLC, its manager

By:  _____

Name: Thomas Ambrose

Title: Manager

SELLER:

MERICHEM COMPANY

By: _____

Name: Kendra Lee

Title: Chairman and Chief Executive Officer

IN WITNESS WHEREOF, the Parties have executed this Patent Rights Assignment as of the Effective Date above.

PURCHASER:

MERICHEM TECHNOLOGIES, LLC

By: Merichem Technologies HoldCo, LLC, its manager

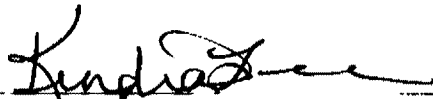
By: _____

Name: Thomas Ambrose

Title: Manager

SELLER:

MERICHEM COMPANY

By:  _____

Name: Kendra Lee

Title: Chairman and Chief Executive Officer

PATENT RIGHTS ASSIGNMENT

SCHEDULE 1

For the avoidance of doubt, in addition to the patents and patent applications identified on the following list, any and all rights in patents and patent applications granted or pending in any jurisdiction in the world that are not explicitly listed below but that claim the priority of, form the basis of a priority claim made in, or make a claim of priority that is common with, any of the applications and granted patents identified below, are deemed included herein.

[continued next page]

Application Title	Country	Status	Filed Date	Patent Number (Appl. No. if pending)
Process for Separating Mercaptans from Caustic	United States of America	Granted	2010-08-03	8,308,957
Contactors and Separation Apparatus and Process of Using Same	United States of America	Granted	2018-01-12	10,633,599
Improved Separation Process	Taiwan	Granted	2008-06-02	I389736
Separation Process	China	Granted	2011-07-27	103189117
Oxidation Process	France	Granted	2017-06-09	3475394
Contactors and Separation Apparatus and Process of Using Same	Japan	Granted	2013-07-09	6349312
Hydrogen Sulfide Removal Process	Mexico	Application	2020-12-03	MXA2020013125
Improved Separation Process	Brazil	Granted	2008-05-19	PI0812520-1
Improved Separation Process	Russian Federation	Granted	2008-05-19	2441688
Separation Process	Moldova	Granted	2011-07-27	0024290
High Pressure Reduction-Oxidation Desulphurization Process	United States of America	Granted	2013-01-08	8,652,435
A METHOD FOR REGENERATING A CAUSTIC SOLUTION	India	Granted	2017-06-09	421022
Improved Separation Process	Hong Kong	Granted	2008-05-19	1145157
Improved Separation Process	Germany (Federal Republic of)	Granted	2008-05-19	2164592
HYDROGEN SULFIDE REMOVAL PROCESS BY USE OF A SULFUR DYE CATALYST	India	Granted	2019-05-17	407712
Catalytic Sweetening Using Cresylate-Based Treating Solution	Hong Kong	Granted	2012-01-31	HK1186748
Hydrogen Sulfide Removal Process	Hong Kong	Granted	2019-09-17	HK40041767
Hydrogen Sulfide Removal Process	India	Published	2019-09-17	202117007327
Removal of Residual Sulfur Compounds from a Caustic Stream	United Kingdom	Granted	2008-05-19	2190787
HYDROGEN SULFIDE REMOVAL PROCESS BY USE OF A SULFUR DYE CATALYST	United Kingdom	Granted	2019-05-17	GB2611253
Hydrogen Sulfide Removal Process	United States of America	Granted	2018-07-16	10,661,220
Separation Process	India	Granted	2013-02-01	292446

Oxidation Process	Netherlands	Granted	2017-06-09	3475394
Catalytic Sweetening Using Cresylate-Based Treating Solution	Turkey	Granted	2012-01-31	2670820
Contactors and Separation Apparatus and Process of Using Same	United Kingdom	Granted	2013-07-09	2872235
Removal of Residual Sulfur Compounds from a Caustic Stream	Turkey	Granted	2008-05-19	2190787
Separation Process	Spain	Granted	2011-07-27	2600955
Flow Control Method and Apparatus for a Continuous Multiple Zone Mass Transfer	United States of America	Granted	2010-06-07	7,951,353
Separation Process	United States of America	Granted	2012-10-09	8,454,824
Hydrocarbon Treatment Process	United States of America	Granted	2011-01-31	8,900,446
Flow Control Method and Apparatus for a Continuous Multiple Zone Mass Transfer	Hong Kong	Granted	2011-06-06	HK1181344
HYDROGEN SULFIDE REMOVAL PROCESS BY USE OF A SULFUR DYE CATALYST	China	Published	2019-05-17	202310404673.2
Flow Control Method and Apparatus for a Continuous Multiple Zone Mass Transfer	European Patent	Published	2011-06-06	19153717.4
Catalytic Sweetening Using Cresylate-Based Treating Solution	China	Granted	2012-01-31	ZL201280005098.9
Hydrogen Sulfide Removal Process	Mexico	Application	2021-02-08	Mxa202101556
METHOD OF OXIDIZING MERCAPTANS TO DISULFIDE OIL	Vietnam	Granted	2017-06-09	34557
Hydrogen Sulfide Removal Process	Canada	Granted	2019-09-17	3,107,804
Oxidizer and Oxidation Process for a Desulphurization Process	United States of America	Granted	2007-03-14	7,279,148
Improved Separation Process	India	Granted	2008-05-19	265776
Oxidation Process	Italy	Granted	2017-06-09	502022000078753
Removal of Residual Sulfur Compounds from a Caustic Stream	Hong Kong	Granted	2008-05-19	1149580
High Pressure Reduction-Oxidation Desulphurization Process	European Patent	Granted	2011-09-08	2632569
Flow Control Method and Apparatus for a Continuous Multiple Zone Mass Transfer	Russian Federation	Granted	2011-06-06	2519726
Improved Separation Process	China	Granted	2008-05-19	ZL200880102073.4
HYDROGEN SULFIDE REMOVAL PROCESS	Russian Federation	Allowed	2021-04-19	RU2804317c2
Oxidation Process	Japan	Granted	2017-06-09	6913214
Contactors and Separation Apparatus and Process of Using Same	India	Granted	2013-07-09	326167
Oxidation Process	Germany (Federal Republic of)	Granted	2017-06-09	602017061958.2
Sulfone Removal From an Oxidized Hydrocarbon Fuel	European Patent	Granted	2011-08-31	2611887

Contactors and Separation Apparatus and Process of Using Same	Brazil	Granted	2013-07-09	BR112014029847-5
Oxidizer and Oxidation Process for a Desulphurization Process	United States of America	Granted	2006-06-05	7,226,883
Apparatus for Treating a Waste Stream	United States of America	Granted	2012-09-18	8,906,230
Catalytic Sweetening Using Cresylate-Based Treating Solution	Brazil	Granted	2012-01-31	BR1120130135760
Separation Process	Switzerland	Granted	2011-07-27	2600955
Improved Separation Process	France	Granted	2008-05-19	2164592
Separation Process	Germany (Federal Republic of)	Granted	2011-07-27	2600955
Oxidation Process	United Kingdom	Granted	2017-06-09	3475394
Catalytic Sweetening Using Cresylate-Based Treating Solution	Japan	Granted	2012-01-31	5763785
Removal of Residual Sulfur Compounds from a Caustic Stream	Germany (Federal Republic of)	Granted	2008-05-19	2190787
Oxidation Process	Russian Federation	Granted	2017-06-09	2697871
Contactors and Separation Apparatus and Process of Using Same	Italy	Granted	2013-07-09	2872235
Separation Process	Kazakhstan	Granted	2011-07-27	0024290
Hydrogen Sulfide Removal Process	Norway	Application	2019-05-17	20210144
Oxidation Process	Turkey	Granted	2017-06-09	TR 2022/016575 T4
Improved Separation Process	Italy	Granted	2008-05-19	2164592
Hydrogen Sulfide Removal Process	China	Granted	2019-09-17	ZL201980058058.2
Hydrogen Sulfide Removal Process	China	Granted	2019-05-17	ZL201980043588.X
Catalytic Sweetening Using Cresylate-Based Treating Solution	European Patent	Granted	2012-01-31	2670820
Removal of Residual Sulfur Compounds from a Caustic Stream	Japan	Granted	2008-05-19	5475664
Contactors and Separation Apparatus and Process of Using Same	United States of America	Granted	2012-07-11	9,656,185
HYDROGEN SULFIDE REMOVAL PROCESS	United States of America	Granted	2021-06-17	11/547,967
Removal of Residual Sulfur Compounds from a Caustic Stream	Hong Kong	Published	2008-05-19	16112665.1
Separation Process	Greece	Granted	2011-07-27	2600955
Improved Separation Process	Spain	Granted	2008-05-19	2164592
Separation Process	Armenia	Granted	2011-07-27	0024290
HYDROGEN SULFIDE REMOVAL PROCESS	Hong Kong	Published	2019-09-17	42023079162.6
Separation Process	United Kingdom	Granted	2011-07-27	2600955
Removal of Residual Sulfur Compounds from a Caustic Stream	China	Granted	2008-05-19	ZL200880115461.6
Oxidation Process	Hong Kong	Granted	2017-06-09	HK1262442
Improved Separation Process	Netherlands	Granted	2008-05-19	2164592
Oxidation Process	Hong Kong	Granted	2017-06-09	HK40049873

Oxidizer And Oxidation Process For A Desulphurization Process	United States of America	Granted	2007-03-14	7,344,682
Removal of Residual Sulfur Compounds from a Caustic Stream	India	Granted	2008-05-19	277373
Removal of Residual Sulfur Compounds from a Caustic Stream	Belgium	Granted	2008-05-19	2190787
HYDROGEN SULFIDE REMOVAL PROCESS BY USE OF A SULFUR DYE CATALYST	Canada	Granted	2019-05-17	3103924
Hydrocarbon Treatment Process	Taiwan	Granted	2010-12-09	I450956
Removal of Residual Sulfur Compounds from a Caustic Stream	Italy	Granted	2008-05-19	2190787
Sulfone Removal from an Oxidized Hydrocarbon Fuel	United States of America	Granted	2010-08-31	8,574,429
Contactore and Separation Apparatus and Process of Using Same	United States of America	Granted	2020-11-04	11,248,175
Separation Process	Brazil	Granted	2011-07-27	BR112013001954-9
Improved Separation Process	Japan	Published	2008-05-19	2010512147
Contactore and Separation Apparatus and Process of Using Same	United States of America	Granted	2017-04-12	10,300,407
Hydrogen Sulfide Removal Process	Russian Federation	Application	2020-12-10	2023114339
Oxidation Process	Indonesia	Granted	2017-06-09	IDP000077005
Removal of Residual Sulfur Compounds from a Caustic Stream	European Patent	Granted	2008-05-19	2190787
Flow Control Method and Apparatus for a Continuous Multiple Zone Mass Transfer	India	Granted	2011-06-06	296409
Separation Process	Netherlands	Granted	2011-07-27	2600955
Contactors and Separation Apparatus and Process of Using Same	Netherlands	Granted	2013-07-09	2872235
Separation Process	Belgium	Granted	2011-07-27	2600955
Oxidation Process	European Patent	Granted	2017-06-09	3475394
Flow Control Method and Apparatus for a Continuous Multiple Zone Mass Transfer	Brazil	Granted	2011-06-06	BR1120120283057
Contactors and Separation Apparatus and Process of Using Same	European Patent	Granted	2013-07-09	2872235
Catalytic Sweetening Using Cresylate-Based Treating Solution	Netherlands	Granted	2012-01-31	2670820
Contactors and Separation Apparatus and Process of Using Same	China	Granted	2013-07-09	ZL201380035875.9
Removal of Residual Sulfur Compounds from a Caustic Stream	Switzerland	Granted	2008-05-19	2190787
Oxidation Process	Greece	Granted	2017-06-09	3475394
Flow Control Method and Apparatus for a Continuous Multiple Zone Mass Transfer	Japan	Granted	2011-06-06	5799089
Improved Separation Process	European Patent	Granted	2008-05-19	2164592

Hydrogen Sulfide Removal Process	China	Published	2019-09-17	
Hydrocarbon Treatment Process	United States of America	Granted	2014-11-03	9,458,392
HYDROGEN SULFIDE REMOVAL PROCESS	United Kingdom	Granted	2019-05-17	2588540
Contactors and Separation Apparatus and Process of Using Same	France	Granted	2013-07-09	2872235
Methods for regenerating a caustic solution	Vietnam	Application	2017-06-09	1-2022-01999
Three Phase Sulphur Separation Method with Interface Control	United States of America	Granted	2013-01-03	8,597,375
Removal of Residual Sulfur Compounds from a Caustic Stream	France	Granted	2008-05-19	2190787
Improved Separation Process	Turkey	Granted	2008-05-19	2164592
Oxidation Process	Brazil	Granted	2017-06-09	112018076933-9
Separation Process	Tajikistan	Granted	2011-07-27	0024290
Catalytic Sweetening Using Cresylate-Based Treating Solution	United Kingdom	Granted	2012-01-31	2670820
Separation Process	Italy	Granted	2011-07-27	2600955
Separation Process	Czechia	Granted	2011-07-27	2600955
Catalytic Sweetening Using Cresylate-Based Treating Solution	Russian Federation	Granted	2012-01-31	2545455
Oxidation Process	Japan	Granted	2017-06-09	6748236
Oxidation Process	Korea, Republic of (KR)	Granted	2017-06-09	10-2252216
Improved Separation Process	Greece	Granted	2008-05-19	2164592
Hydrogen Sulfide Removal Process	United States of America	Granted	2020-07-01	11,072,746
Three Phase Sulfur Separation System with Interface Control	United States of America	Granted	2009-12-14	8,367,009
Flow Control Method and Apparatus for a Continuous Multiple Zone Mass Transfer	China	Granted	2011-06-06	ZL201180026442.8
Contactors and Separation Apparatus and Process of Using Same	Greece	Granted	2013-07-09	3094432
Oxidation Process	Canada	Granted	2017-06-09	3,028,362
Contactors and Separation Apparatus and Process of Using Same	Hong Kong	Granted	2013-07-09	HK1205710
Contactors and Separation Apparatus and Process of Using Same	Russian Federation	Granted	2013-07-09	2645483
Hydrogen Sulfide Removal Process	Russian Federation	Allowed	2020-12-10	RU2797436c2
Fiber Film Reactors to Effect Separation and Reaction Between Two Immiscible Reaction Components	United States of America	Granted	2005-12-22	7,618,544
Oxidation Process	United States of America	Granted	2018-07-02	10,336,949
Oxidation Process	China	Granted	2017-06-09	ZL201780038976.X

Removal of Residual Sulfur Compounds from a Caustic Stream	Spain	Granted	2008-05-19	2190787
Hydrogen Sulfide Removal Process	Australia	Application	2020-11-22	2019308471
Catalytic Sweetening Using Cresylate-Based Treating Solution	Greece	Granted	2012-01-31	2670820
Apparatus for Treating a Waste Stream	United States of America	Granted	2010-04-24	8,298,429
Apparatus for Treating a Waste Stream	United States of America	Granted	2008-11-20	7,828,962
Separation Process	Japan	Granted	2011-07-27	5714109
Separation Process	France	Granted	2011-07-27	2600955
Separation Process	Turkmenistan	Granted	2011-07-27	0024290
Contactors and Separation Apparatus and Process of Using Same	United States of America	Granted	2020-03-20	10,858,597
Separation Process	United States of America	Granted	2007-06-14	7,833,499
Oxidation Process	India	Granted	2017-06-09	337578
Separation Process	Azerbaijan	Granted	2011-07-27	0024290
Improved Separation Process	United Kingdom	Granted	2008-05-19	2164592
Oxidation Process	Russian Federation	Granted	2019-08-14	2716259
Separation Process	Hong Kong	Granted	2011-07-27	HK1182043
Improved Gas-Liquid Contactor For Hydrogen Sulfide Removal Process	United States of America	To Be Filed	n/a	n/a
Separation Process	European Patent	Granted	2011-07-27	2600955
Contactors and Separation Apparatus and Process of Using Same	Turkey	Granted	2013-07-09	2872235
Hydrogen Sulfide Removal Process	United States of America	Granted	2018-10-15	10,787,614
Oxidation Process	China	Granted	2017-06-09	ZL202110609175.2
Improved Separation Process	Belgium	Granted	2008-05-19	2164592
Removal of Residual Sulfur Compounds from a Caustic Stream	Taiwan	Granted	2008-06-02	I389732
Contactors and Separation Apparatus and Process of Using Same	Taiwan	Granted	2013-07-08	I490023
Hydrogen Sulfide Removal Process	United States of America	Granted	2020-04-21	10,974,190
Oxidation Process	United States of America	Granted	2016-06-22	10,059,889
Contactors and Separation Apparatus and Process of Using Same	United States of America	Granted	2019-03-04	10,518,194
Separation Process	Eurasian Patent Convention	Granted	2011-07-27	0024290
Separation Process	Turkey	Granted	2011-07-27	2600955
Separation Process	Russian Federation	Granted	2011-07-27	0024290
Apparatus for Treating a Waste Stream	Taiwan	Granted	2009-11-20	I396663

Removal of Residual Sulfur Compounds from a Caustic Stream	Netherlands	Granted	2008-05-19	2190787
HYDROGEN SULFIDE REMOVAL PROCESS BY USE OF A SULFUR DYE CATALYST	Hong Kong	Granted	2019-05-17	HK40047158
Separation Process	Kyrgyzstan	Granted	2011-07-27	0024290
Removal of Residual Sulfur Compounds from a Caustic Stream	Greece	Granted	2008-05-19	2190787
Novel High Pressure Redox Operation Scheme	United States of America	To Be Filed	n/a	n/a
Contactors and Separation Apparatus and Process of Using Same	Spain	Granted	2013-07-09	2872235
Catalytic Sweetening Using Cresylate-Based Treating Solution	Hong Kong	Granted	2010-11-30	1171044
Catalytic Sweetening Using Cresylate-Based Treating Solution	Italy	Granted	2012-01-31	2670820
Separation Process	Taiwan	Granted	2011-08-03	I422423
High Pressure Reduction-Oxidation Desulphurization Process	United States of America	Granted	2010-10-27	8,372,365
Improved Separation Process	Switzerland	Granted	2008-05-19	2164592
A Method and a Solution for Treating Hydrocarbon Containing Mercaptans	China	Granted	2010-11-30	201080039063.8
Improved Separation Process	Czechia	Granted	2008-05-19	2164592
Oxidation Process	Thailand	Published	2017-06-09	1801007699
Separation Process	Belarus	Granted	2011-07-27	0024290
Removal of Residual Sulfur Compounds from a Caustic Stream	Czechia	Granted	2008-05-19	2190787
Oxidation Process	Mexico	Allowed	2017-06-09	MXA2018015901
Catalytic Sweetening Using Cresylate-Based Treating Solution	India	Granted	2012-01-31	295007
Contactors and Separation Apparatus and Process of Using Same	Germany (Federal Republic of)	Granted	2013-07-09	2872235

Title	Country	Status	Appl. Date	Appl. No.	Grant Date	Patent No.	Expires	Next Maint. Due
High Pressure Reduction-Oxidation Desulphurization Process	Brazil	Granted	2011-09-08	BR112013003959-0	2019-12-17	BR112013003959-0	2031-09-08	2023-09-08
High Pressure Reduction-Oxidation Desulphurization Process	China	Granted	2011-09-08	201180042300.0	2015-02-18	ZL201180042300.0	2031-09-08	2023-09-08
High Pressure Reduction-Oxidation Desulphurization Process	India	Granted	2011-09-08	2969DELNP2013	2018-12-20	304751	2031-09-08	2023-09-08

High Pressure Reduction-Oxidation Desulphurization Process	Russian Federation	Granted	2011-09-08	2013104511	2014-09-10	2527991	2031-09-08	2023-09-08
Flow Control Method and Apparatus for a Continuous Multiple Zone Mass Transfer	Patent Cooperation Treaty	Expired	2011-06-06	PCTUS1139262				
Sulfone Removal From an Oxidized Hydrocarbon Fuel	Patent Cooperation Treaty	Expired	2011-08-31	PCTUS1149821				
Treating Sulfur Containing Hydrocarbons Recovered from Hydrocarbonaceous Deposits	Patent Cooperation Treaty	Expired	2013-11-27	PCTUS1372190				
Contactors and Separation Apparatus and Process of Using Same	Patent Cooperation Treaty	Expired	2013-07-09	PCTUS1349629				
Oxidation Process	Patent Cooperation Treaty	Expired	2017-06-09	PCTUS2017036734				
Hydrogen Sulfide Removal Process	Patent Cooperation Treaty	Expired	2019-09-17	PCTUS2019051445				
HYDROGEN SULFIDE REMOVAL PROCESS BY USE OF A SULFUR DYE CATALYST	Hong Kong	Published	2019-05-17	62021036951.3				2027-05-17
H2S Removal Process	United States of America	Expired	2018-02-27	62/635741			2019-02-27	
Hydrogen Sulfide Removal Process	Patent Cooperation Treaty	Expired	2019-05-17	PCTUS2019032793				
HYDROGEN SULFIDE REMOVAL PROCESS BY USE OF A SULFUR DYE CATALYST	United Kingdom	Allowed	2019-05-17	2018796.9				
HYDROGEN SULFIDE REMOVAL PROCESS BY USE OF A SULFUR DYE CATALYST	United Kingdom	Application	2019-05-17	2219574.7				

Title	Country	Application Number	Application Filing Date	Patent Number	Date Granted
Liquid-Liquid Mass Transfer Process and Apparatus	United States	16/203,967	11/29/2018	10,456,711	10/29/2019
Liquid-Liquid Mass Transfer Process and Apparatus	United States	16/578,856	09/23/2019	10,946,309	03/16/2021
Improved Liquid-Liquid Mass Transfer Process and Apparatus	PCT	PCT/US19/52584	09/24/2019	n/a	n/a

Improved Liquid-Liquid Mass Transfer Process and Apparatus	Brazil	BR 112021004084-6	09/24/2019	-	-
Improved Liquid-Liquid Mass Transfer Process and Apparatus	India	202117007443	09/24/2019	394153	04/04/2022
Improved Liquid-Liquid Mass Transfer Process and Apparatus	Russia	2021105525	09/24/2019	2761854	12/13/2021
Improved Liquid-Liquid Mass Transfer Process and Apparatus	China	201980055177.2	09/24/2019	ZL201980055177.2	07/11/2023
Improved Liquid-Liquid Mass Transfer Process and Apparatus	EPO	19783825.3	09/24/2019	-	-
Improved Liquid-Liquid Mass Transfer Process and Apparatus	Mexico	MX/a/2021/002678	09/24/2019	-	-
Multi-Stage Contacting Process And Apparatus	United States	16/784,049	02/06/2020	11,339,334	05/24/2022
Multi-Stage Contacting Process And Apparatus	PCT	PCT/US21/13664	01/15/2021	-	-
Multi-stage contacting process and apparatus	Greece	20210100059	01/29/2021	20210100059	02/18/2022
Multi-Stage Contacting Process And Apparatus	Canada	3,150,327	02/06/2020	-	-
Multi-Stage Contacting Process And Apparatus	Mexico	MX/a/2022/006757	01/15/2021	-	-
Multi-Stage Contacting Process And Apparatus	Brazil	BR 11 2022 007847-1	01/15/2021	-	-
Multi-Stage Contacting Process And Apparatus	Russia	2022110964	01/15/2021	-	-
Multi-Stage Contacting Process And Apparatus	India	202247031166	01/15/2021	-	-
Multi-Stage Contacting Process And Apparatus	China	202180005729.6	01/15/2021	ZL202180005729.6	10/03/2023
Multi-Stage Contacting Process And Apparatus	Germany	112021000898.6	01/15/2021	-	-
Multi-Stage Contacting Process And Apparatus	Korea - South	10-2022-7012122	01/15/2021	-	-
Multi-Stage Contacting Process And Apparatus	Turkey	2022/004856	01/15/2021	-	-
Multi-Stage Contacting Process And Apparatus	Vietnam	1-2022-01805	01/15/2021	-	-
Catalytic Carbon Fiber Preparation Methods	United States	17/129,453	12/21/2020	11,524,283	12/13/2022
Catalytic Carbon Fiber Preparation Methods	United States	17/984,904	11/10/2022	11,826,741	11/28/2023
Catalytic Carbon Fiber Contactor	United States	17/129,565	12/21/2020	11,517,889	12/06/2022
Catalytic Carbon Fiber Preparation Methods	United States	17/536,850	11/29/2021	11,826,736	11/28/2023
Catalytic Carbon Fiber Preparation Methods and Contactor	PCT	PCT/US21/64390	12/20/2021	-	-
Catalytic Carbon Fiber Preparation Methods	Brazil	BR 112023012331-3	12/20/2021	-	-
Catalytic Carbon Fiber Preparation Methods	Russia	2023118538	12/20/2021	-	-
Catalytic Carbon Fiber Preparation Methods	Turkey	2023/007323	12/20/2021	-	-
Catalytic Carbon Fiber Preparation Methods	Mexico	MX/a/2023/007316	12/20/2021	-	-
Catalytic Carbon Fiber Preparation Methods	Vietnam	1-2023-04615	12/20/2021	-	-
Catalytic Carbon Fiber Preparation Methods	Canada	3,205,243	12/20/2021	-	-

Catalytic Carbon Fiber Preparation Methods	China	202180091344.6	12/20/2021	-	-
Catalytic Carbon Fiber Preparation Methods	India	202337041947	12/20/2021	-	-
Catalytic Carbon Fiber Preparation Methods	Japan	2023-537924	12/20/2021	-	-
Catalytic Carbon Fiber Preparation Methods	Singapore	11202304574V	12/20/2021	-	-
CATALYST FOR CARBONYL SULFIDE REMOVAL FROM HYDROCARBONS	United States	17/851,759	06/28/2022	-	-
CATALYST FOR CARBONYL SULFIDE REMOVAL FROM HYDROCARBONS	PCT	PCT/US23/22876	05/19/2023	-	-
CATALYST FOR CARBONYL SULFIDE REMOVAL FROM HYDROCARBONS	Greece	20230100485	06/15/2023	-	-
Method of preparing functional polymers	United States	17/851,523	06/28/2022	-	-
Method of preparing functional polymers	PCT	PCT/US23/23986	05/31/2023	-	-