

PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

Assignment ID: PATI794673

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
MIS IP HOLDINGS, LLC	01/30/2025
RECEIVING PARTY DATA	
Company Name:	TexOPCO, LLC
Street Address:	1463 Highway 6 S #THS
City:	Houston
State/Country:	TEXAS
Postal Code:	77077-2134
PROPERTY NUMBERS Total: 36	
Property Type	Number
Patent Number:	11020713
Patent Number:	9666873
Patent Number:	10604426
Patent Number:	10799834
Patent Number:	11833474
Patent Number:	11701619
Patent Number:	11998876
Patent Number:	11583809
Patent Number:	11911729
Patent Number:	11311820
Patent Number:	11571637
Patent Number:	11638886
Patent Number:	11918935
Patent Number:	11478752
Patent Number:	11577202
Patent Number:	11608282
Patent Number:	11739005
Patent Number:	11912591
Patent Number:	12180097
Application Number:	63622585

Property Type	Number
Application Number:	17971124
Application Number:	18108098
Application Number:	17132235
Application Number:	18219197
Application Number:	17824116
Application Number:	18080856
Application Number:	18184084
Application Number:	18431696
Application Number:	18431667
Application Number:	18431635
Application Number:	18731615
Application Number:	18977040
Application Number:	18984152
PCT Number:	US2272643
PCT Number:	US2281545
PCT Number:	US2364392

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.

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Email: ggrune@epatentmanager.com, mcarter@epatentmanager.com

Correspondent Name: Dr. Guerry L. Grune

Address Line 1: 784 S Villier Court

Address Line 4: Virginia Beach, VIRGINIA 23452

ATTORNEY DOCKET NUMBER:	MIS IPH to TEX
NAME OF SUBMITTER:	Dr. Guerry Grune
SIGNATURE:	/Dr. Guerry Grune/
DATE SIGNED:	01/31/2025

Total Attachments: 6

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PATENT ASSIGNMENT

This Patent Assignment (the "Assignment") is made and effective as of this 29 day of January, 2025 ("Effective date") by and between MIS IP HOLDINGS, LLC, (the "Assignor") and Texopco, LLC, (the "Assignee").

RECITALS

WHEREAS, the Assignor has invented certain new and useful inventions (the "Inventions") and branding marks (the "Trademarks") and (i) has registered or (ii) has applied for the registration of patents on the Inventions, which patent and applications for patents are listed in Schedule I attached hereto and made a part hereof (collectively, the "Patents" and "Patent Applications") or (iii) has applied for the registration of trademarks on the branding marks, which trademarks and applications for trademarks are listed in Schedule II attached hereto and made a part hereof (collectively, the "Trademarks" and "Trademark Applications"); ; and

WHEREAS, MIS IP HOLDINGS, LLC is a membership interest owner of the inventions disclosed in Schedule I and Schedule II; and

WHEREAS, it is the ASSIGNOR'S intention to assign and transfer to the ASSIGNEE all of its right, title, and interest in and to the Inventions and the Patents;

WHEREAS, ASSIGNEE desires to acquire all of the ASSIGNOR'S right, title and interest in and to the Inventions and the Patents in the United States and the Patents and certain patent rights and the like in the United States based thereon:

NOW, THEREFORE, in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the ASSIGNOR agrees to sell, assign, transfer, and set over to ASSIGNEE, and by these presents does hereby sell, assign, transfer, and set over to ASSIGNEE, its successors and assigns, its or his entire right, title and interest in, to and under:

- the Inventions in the United States and any and all countries outside of the United States;
- the Patents, and the sole right but not the obligation to prosecute, combine and/or abandon same, including the sole right but not the obligation to file, prosecute and/or abandon any and all present and future divisions, continuations and continuations-in-part, extensions, renewals and reissues of any of them;
- all forms of intellectual property protection, including without limitation, Letters Patents of the United States, patents, utility models, inventor's certificates and designs which may now or in the future be granted for any and all of the inventions in the United States and in any countries outside of the United States; and all reissues and extensions thereof, and the sole right but not the obligation to maintain and abandon any of them; and
- the right to sue for damages and other remedies and to otherwise enforce, and to keep any damage awards, royalties and other proceeds therefrom for itself, for any past, present and/or future infringement of any of the aforesaid Inventions, Letters Patents of the United States and patents in other countries;

AND the ASSIGNOR hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and other appropriate government officials in countries outside of the United States to issue any and all Letters Patents of the United States, and any and all foreign patents to the ASSIGNEE, its successors, and assigns;

AND the ASSIGNOR, each for itself or himself, hereby represents, warrants, covenants and agrees that collectively or severally they have the full right to convey the entire interest purported herein to be assigned, and

that it or he has not executed, and will not execute, any agreement or other instrument in conflict herewith.

AND the ASSIGNOR, each for itself or himself, further represents, warrants, covenants and agrees that upon request it or he will, promptly upon request and without further compensation: communicate to

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ASSIGNEE, its successors and assigns, any facts known to it or him respecting any or all of the Inventions and Patents; testify in any legal proceeding (without, however, any obligation to travel more than fifty miles from his then residence or its then primary place of business in the United States); execute all lawful and appropriate documents necessary or useful to the filing, prosecution, issuance, maintenance and/or enforcement of any or all of the Applications, the aforesaid divisionals, continuations, continuations-in-part, extensions, renewals and reissues, and the aforesaid Letters Patents of the United States, and foreign patents; make all rightful oaths; and generally do everything reasonably possible and appropriate to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain, enforce and otherwise fully enjoy the benefits of the assets assigned herein within and without the United States.

IN TESTIMONY WHEREOF, the ASSIGNOR each executes this Assignment on the date indicated and initials each page of this Assignment.

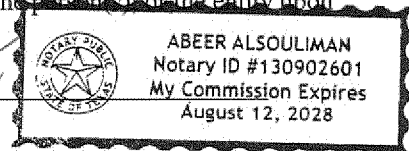
The Assignor:

Date: 29 Jan, 2025 Robert Hoff For MIS
Authorized Representative - MIS IP Holdings, LLC
State of: Texas County of: Harris

In the State of Texas, County of Harris, on 01/30/25, before me, Abeer Alsouliman Notary Public, personally appeared Robert Hoff, personally known to me, or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which person (s) acted, executed the instrument.

WITNESS my hand and official seal

Date my Commission expires August 12, 2028



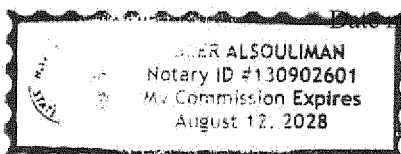
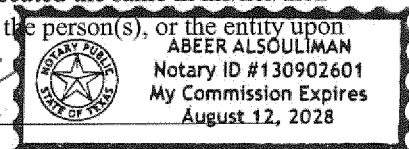
The Assignee:

Date: 29 January, 2025 Robert Hoff TEX
Authorized Representative - TexOPCO, LLC
State of: Texas County of: Harris
Printed Name/Title of Authorized Representative: Robert Hoff

In the State of Texas, County of Harris, on 01/29/25, before me, Abeer Alsouliman, Notary Public, personally appeared Robert Hoff, personally known to me, or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which person (s) acted, executed the instrument.

WITNESS my hand and official seal

Date my Commission expires August 12, 2028



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ASSIGNMENT AND CONFIRMATORY ASSIGNMENT

SCHEDULE I

Title	Application No.	Publication No.	Registration No.
ION SELECTIVE MEMBRANE WITH IONOPHORES	16/454,935	US-2020-0001251-A1	11,020,713
APPARATUS AND METHODS FOR TREATING WATER AND GENERATING ELECTRICAL POWER	14/734,652	US-2015-0357651-A1	9,666,873
HIGH EFFICIENCY ELECTROCHEMICAL DESALINATION SYSTEM THAT INCORPORATES PARTICIPATING ELECTRODES	15/390,165	US-2018-0179089-A1	10,604,426
BIPOLAR ELECTROCHEMICAL SPACER	15/853,155	US-2019-0193030-A1	10,799,834
BIPOLAR ELECTROCHEMICAL SPACER	17/003,602	US 2021-0001275 A1	11833474
DIAGNOSTIC METHODS AND APPARATUS FOR ELECTRODIALYSIS	16/600,416	US-2020-0114314-A1	11,701,619
DIAGNOSTIC METHODS AND APPARATUS FOR ELECTRODIALYSIS	18/321,887	US-2023-0285902-A1	11,998,876
3D PRINTED SPACERS FOR ION-EXCHANGE DEVICE	16/449,951	US-2019-0388843-A1	11,583,809
3D PRINTED SPACERS FOR ION-EXCHANGE DEVICE	18/098,379	US-2023-0149858-A1	11,911,729
SPACERS FOR ION-EXCHANGE DEVICE	16/685,617	US 2020-0155967 A1	11,311,820
SPACERS FOR ION-EXCHANGE DEVICE	17/705,862	US-2022-0219098-A1	11,571,637
SPACERS FOR ION-EXCHANGE DEVICE	17/705,866	US-2022-0212124-A1	11,638,886
SPACERS FOR ION-EXCHANGE DEVICE	18/106,096	US-2023-0182040-A1	11,918,935
ELECTRODIALYSIS SYSTEMS WITH DECREASED CONCENTRATION GRADIENTS AT HIGH RECOVERY RATES	16/844,787	US 2020-0324249 A1	11,478,752
ELECTRODIALYSIS PROCESS AND BIPOLAR MEMBRANE ELECTRODIALYSIS DEVICES FOR SILICA REMOVAL	16/911,056	US 2020-0406194 A1	11,577,202
HYBRID ELECTROCHEMICAL AND MEMBRANE-BASED PROCESSES FOR TREATING WATER WITH HIGH SILICA CONCENTRATIONS	17/035,119	US 2021-0094846 A1	11,608,282
LIQUID CRYSTALLIZER SALTING OUT SOLUTION	17/332,684	US-2021-0371300-A1	11,739,005
ELECTRODIALYSIS PROCESSES USING AN ORGANIC SOLVENT FOR SEPARATING DISSOLVED SPECIES	17/189,853	US-2021-0276892-A1	11,912,591
HYBRID ELECTROCHEMICAL AND MEMBRANE-BASED PROCESSES FOR TREATING WATER WITH HIGH SILICA CONCENTRATIONS	18/123,536	US-2023-0295019-A1	12,180,097
SYSTEMS AND METHODS FOR ESTIMATING SCALING OF A MEMBRANE IN A WATER FILTRATION SYSTEM	63/662,585	n/a	n/a
ELECTRODIALYSIS SYSTEMS WITH DECREASED CONCENTRATION GRADIENTS AT HIGH RECOVERY RATES	17/971,124	US-2023-0054712-A1	
ELECTRODIALYSIS PROCESS AND BIPOLAR MEMBRANE ELECTRODIALYSIS DEVICES FOR SILICA REMOVAL	18/108,098	US-2023-0182078-A1	
ELECTRODIALYSIS PROCESS FOR HIGH ION REJECTION IN THE PRESENCE OF BORON	17/132,235	US-2021-0198126-A1	
LIQUID CRYSTALLIZER SALTING OUT SOLUTION	18/219,197	US-2024-0022660	
DIRECT SOLVENT CONTACT CRYSTALLIZATION ZERO-LIQUID DISCHARGE DESALINATION WITH VOLATILE HYDROPHOBIC RECOVERY AGENT REGENERATION	17/824,116	US-2022-0380243-A1	

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ASSIGNMENT AND CONFIRMATORY ASSIGNMENT

Page 3 of 6

PATENT
REEL: 070072 FRAME: 0154

ION REMOVAL FROM HEAVY ENDS USING ELECTRODIALYSIS	18/080,856	US-2023-0182079-A1	
REMOVAL OF HARDNESS USING TEMPLATE ASSISTED CRYSTALLIZATION FOR ELECTRODIALYSIS DESALINATION OF SALINE WATER	18/184,084	US-2023-0339794 A1	
3D PRINTED SPACERS FOR ION-EXCHANGE DEVICE	18/431,696	US-2024-0307827 A1	
SPACERS FOR ION-EXCHANGE DEVICE	18/431,667	US-2024-0307797 A1	
ELECTRODIALYSIS PROCESSES USING AN ORGANIC SOLVENT FOR SEPARATING DISSOLVED SPECIES	18/431,635	US-2024-0308888 A1	
DIAGNOSTIC METHODS AND APPARATUS FOR ELECTRODIALYSIS	18/731,615		
ELECTRODIALYSIS PROCESS FOR HIGH ION REJECTION IN THE PRESENCE OF BORON	18/977,040		
HYBRID ELECTROCHEMICAL AND MEMBRANE-BASED PROCESSES FOR TREATING WATER WITH HIGH SILICA CONCENTRATIONS	18/984,152		
DIRECT SOLVENT CONTACT CRYSTALLIZATION ZERO-LIQUID DISCHARGE DESALINATION WITH VOLATILE HYDROPHOBIC RECOVERY AGENT REGENERATION	PCT/US2022/072643	WO 2022/256789	
ION REMOVAL FROM HEAVY ENDS USING ELECTRODIALYSIS	PCT/US2022/081545	WO 2023/114836	
REMOVAL OF HARDNESS USING TEMPLATE ASSISTED CRYSTALLIZATION FOR ELECTRODIALYSIS DESALINATION OF SALINE WATER	PCT/US2023/064392	WO2023205558	
ION SELECTIVE MEMBRANE WITH IONOPHORES	MX/a/2020/012758	MX2020012758A	
BIPOLAR ELECTROCHEMICAL SPACER	MX/a/2020/006520	MX2020006520A	
3D PRINTED SPACERS FOR ION-EXCHANGE DEVICE	MX/a/2020/012759	MX2020012759A	416502
SPACERS FOR ION-EXCHANGE DEVICE	MX/a/2021/005068	MX2021005068A	
ELECTRODIALYSIS SYSTEMS WITH DECREASED CONCENTRATION GRADIENTS AT HIGH RECOVERY RATES	MX/a/2021/012214	MX2021012214A	
ELECTRODIALYSIS PROCESS AND BIPOLAR MEMBRANE ELECTRODIALYSIS DEVICES FOR SILICA REMOVAL	MX/a/2021/015644	MX2021015644A	
LIQUID CRYSTALLIZER SALTING OUT SOLUTION	MX/a/2022/015218	MX2022015218	
ION REMOVAL FROM HEAVY ENDS USING ELECTRODIALYSIS	MX/a/2024/007479		
REMOVAL OF HARDNESS USING TEMPLATE ASSISTED CRYSTALLIZATION FOR ELECTRODIALYSIS DESALINATION OF SALINE WATER	MX/a/2024/012861		
SPACERS FOR ION-EXCHANGE DEVICE	19896649.1	EP 3880347	
ION REMOVAL FROM HEAVY ENDS USING ELECTRODIALYSIS	22908650.9	EP 4460481	
REMOVAL OF HARDNESS USING TEMPLATE ASSISTED CRYSTALLIZATION FOR ELECTRODIALYSIS DESALINATION OF SALINE WATER	EP 23792656.3		
ION SELECTIVE MEMBRANE WITH IONOPHORES	CL 202003398	CVE 1941957	64.688
ELECTRODIALYSIS PROCESS FOR HIGH ION REJECTION IN THE PRESENCE OF BORON	CL 202201737	CVE 2288809	
LIQUID CRYSTALLIZER SALTING OUT SOLUTION	CL 202203402	CVE 2356228	
ION REMOVAL FROM HEAVY ENDS USING ELECTRODIALYSIS	CL 202401810		

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ASSIGNMENT AND CONFIRMATORY ASSIGNMENT

Page 4 of 6

PATENT
REEL: 070072 FRAME: 0155

REMOVAL OF HARDNESS USING TEMPLATE ASSISTED CRYSTALLIZATION FOR ELECTRODIALYSIS DESALINATION OF SALINE WATER	TBD		
SPACERS FOR ION-EXCHANGE DEVICE	3,117,099	CA3117099A1	
ELECTRODIALYSIS SYSTEMS WITH DECREASED CONCENTRATION GRADIENTS AT HIGH RECOVERY RATES	3,135,656	CA3135656A1	
LIQUID CRYSTALLIZER SALTING OUT SOLUTION	3,185,722	CA3185722A1	
ION REMOVAL FROM HEAVY ENDS USING ELECTRODIALYSIS	TBD		
REMOVAL OF HARDNESS USING TEMPLATE ASSISTED CRYSTALLIZATION FOR ELECTRODIALYSIS DESALINATION OF SALINE WATER	TBD		
LIQUID CRYSTALLIZER SALTING OUT SOLUTION	BR 11 2022 024520 3	BR 11 2022 024520-3 A2	
ION REMOVAL FROM HEAVY ENDS USING ELECTRODIALYSIS	BR 11 2024 012170		
REMOVAL OF HARDNESS USING TEMPLATE ASSISTED CRYSTALLIZATION FOR ELECTRODIALYSIS DESALINATION OF SALINE WATER	BR 11 204 021658 6		
ION SELECTIVE MEMBRANE WITH IONOPHORES	2019295764	AU2019295764A1	
LIQUID CRYSTALLIZER SALTING OUT SOLUTION	2021283838	AU2021283838A1	
ION REMOVAL FROM HEAVY ENDS USING ELECTRODIALYSIS	AU 2022413555		
REMOVAL OF HARDNESS USING TEMPLATE ASSISTED CRYSTALLIZATION FOR ELECTRODIALYSIS DESALINATION OF SALINE WATER	AU 2023255595		
LIQUID CRYSTALLIZER SALTING OUT SOLUTION	PE 2832-2022		

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ASSIGNMENT AND CONFIRMATORY ASSIGNMENT

Page 5 of 6

PATENT
REEL: 070072 FRAME: 0156

SCHEDULE II

Title	Country	Case Status	Application No.	Application Date	Registration No.	Registration Date
MAXIMUM RECOVERY. MINIMUM ENERGY.	United States of America	Registered	87914479	5/9/2018	6059307	5/19/2020
MAXIMUM RECOVERY. MINIMUM ENERGY.	United States of America	Registered	87981959	5/9/2018	5945127	12/24/2019
MAGNA IMPERIO SYSTEMS	United States of America	Registered	87047379	5/23/2016	5692119	3/5/2019
END	United States of America	Registered	87047382	5/23/2016	5692120	3/5/2019
MI SYSTEMS & DESIGN	United States of America	Registered	87047390	5/23/2016	5692121	3/5/2019
MITRAX	United States of America	Under Examination	90/723,433	5/20/2021		
THE QUALITY IS CLEAR	United States of America	DEAD	90/858,223	8/2/2021		
TRANSFORMING THE VALUE OF WATER	United States of America	Under Examination	97/294,255	3/3/2022		
MITRAX	Mexico	Registered	2648305	11/17/2021	2366079	3/4/2022
WATER TITAN & DESIGN	Mexico	Registered	2766723	6/13/2022	2457782	10/5/2022
WATER TITAN & DESIGN	Mexico	Registered	2766724	6/13/2022	2457783	10/5/2022
MAXIMUM RECOVERY. MINIMUM ENERGY.	Mexico	Madrid Ext - Protected	IR1440783	11/5/2018	IR1440783	7/16/2020
TRANSFORMING THE VALUE OF WATER	Brazil	Madrid Ext - Pending	IR1682310	8/12/2022		
MAXIMUM RECOVERY. MINIMUM ENERGY.	Madrid Protocol (TM)	Registered	IR1440783	11/5/2018	IR1440783	11/5/2018
TRANSFORMING THE VALUE OF WATER	Madrid Protocol (TM)	Registered	IR1682310	8/12/2022	IR1682310	8/12/2022
TRANSFORMING THE VALUE OF WATER	Chile	Madrid Ext - Protected	IR1682310	8/12/2022	IR1682310	4/12/2023

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ASSIGNMENT AND CONFIRMATORY ASSIGNMENT

Page 6 of 6

PATENT

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REEL: 070072 FRAME: 0157