PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7737220

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PHOENIX LLC	04/01/2022

RECEIVING PARTY DATA

Name:	SHINE TECHOLOGIES, LLC
Street Address:	3400 INNOVATION CT.
City:	JANESVILLE
State/Country:	WISCONSIN
Postal Code:	53546

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	18094726

CORRESPONDENCE DATA

Fax Number: (608)662-1276

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.

Email: MDCLEMENS@CASIMIRJONES.COM
Correspondent Name: BRIAN F. BRADLEY
Address Line 1: 2275 DEMING WAY, STE 310
Address Line 4: MIDDLETON, WISCONSIN 53562

ATTORNEY DOCKET NUMBER:	SHINE-35102.313
NAME OF SUBMITTER:	BRIAN F. BRADLEY
SIGNATURE:	/BRIAN F. BRADLEY/
DATE SIGNED:	01/11/2023

Total Attachments: 12
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INTERCOMPANY PATENT ASSIGNMENT

This PATENT ASSIGNMENT ("**Assignment**"), effective as of April 1, 2022, is made by Phoenix LLC, a Wisconsin limited liability company ("**Assignor**"), in favor of SHINE Technologies, LLC ("**Assignee**"), a Delaware limited liability company and affiliate of Assignor, and the purchaser of certain assets of Assignor pursuant to an Asset Purchase Agreement, dated as of the date hereof, between Assignor and Assignee (the "**Asset Purchase Agreement**").

WHEREAS, under the terms of the Asset Purchase Agreement, Assignor has conveyed, transferred, and assigned to Assignee, among other assets, certain intellectual property of Assignor, and has agreed to execute and deliver this Assignment, for recording with the United States Patent and Trademark Office and corresponding entities or agencies in any other applicable jurisdictions worldwide;

NOW THEREFORE, the parties agree as follows:

1. Assignment. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby irrevocably conveys, transfers, and assigns to Assignee, and Assignee hereby accepts, all of Assignor's right, title, and interest in and to the following (the "**Assigned IP**"):

(a) the patents and patent applications set forth on Schedule 1 hereto and all issuances, divisions, continuations, continuations-in-part, reissues, extensions, reexaminations, and renewals thereof and any and all legal rights to sue for past, present and future infringement, to collect royalties, to prosecute all existing patent applications worldwide, to apply for additional patents worldwide and to have patents issue in the name of Assignee;

(b) all rights of any kind whatsoever of Assignor accruing under any of the foregoing provided by applicable law of any jurisdiction, by international treaties and conventions, and otherwise throughout the world;

(c) any and all royalties, fees, income, payments, and other proceeds now or hereafter due or payable with respect to any and all of the foregoing; and

(d) any and all claims and causes of action with respect to any of the foregoing, whether accruing before, on, or after the date hereof, including all rights to and claims for damages, restitution, and injunctive and other legal and equitable relief for past, present, and future infringement, dilution, misappropriation, violation, misuse, breach, or default, with the right but no obligation to sue for such legal and equitable relief and to collect, or otherwise recover, any such damages.

2. Recordation and Further Actions. Assignor hereby authorizes the Commissioner for Patents in the United States Patent and Trademark Office and the officials of corresponding entities or agencies in any applicable jurisdictions to record and register this Assignment upon request by Assignee. Following the date hereof, upon Assignee's reasonable request, Assignor shall take such steps and actions, and provide such cooperation and assistance to Assignee and its successors, assigns, and legal representatives, including the execution and delivery of any affidavits, declarations, oaths, exhibits, assignments, powers of attorney, or other documents, as may be reasonably necessary to effect, evidence, or perfect the assignment of the Assigned IP to Assignee, or any assignee or successor thereto.

3. Terms of the Asset Purchase Agreement. The parties hereto acknowledge and agree that this Assignment is entered into pursuant to the Asset Purchase Agreement, to which reference is made. This assignment is made subject to the representations, warranties, covenants and agreements contained

in the Asset Purchase Agreement and shall not be superseded hereby but shall remain in full force and effect to the full extent provided therein. In the event of any conflict or inconsistency between the terms of the Asset Purchase Agreement and the terms hereof, the terms of the Asset Purchase Agreement shall govern.

4. Further Assurances. Assignor shall execute all such documents and perform all such acts as are reasonably required for the purpose of giving full effect to this Agreement and in particular to ensure that the full benefit of the right, title and interest assigned and transferred to Assignee under this Agreement vests in Assignee, including registration of Assignee as applicant or registered proprietor of the Assigned IP with any applicable national or supra-national intellectual property registry.

5. Counterparts. This Assignment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed one and the same agreement. A signed copy of this Assignment delivered by facsimile, e-mail, or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Assignment.

6. Successors and Assigns. This Assignment shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

7. Governing Law. This Assignment and any claim, controversy, dispute, or cause of action (whether in contract, tort, or otherwise) based upon, arising out of, or relating to this Assignment and the transactions contemplated hereby shall be governed by, and construed in accordance with, the laws of the United States and the State of Delaware, without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction).

[SIGNATURE PAGE FOLLOWS]

Date: 4-1-22 Signature of _____ for SHINE Technologies, LLC as ASSIGNEE

Typed Name: Gregory Piefer, Ph.D.

Title: Chief Executive Officer

I declare under penalty of perjury under the laws of the United States of America, and under the penalty of the laws of any other jurisdiction before which this document may be presented, that I have signed this document as my own free act and that all of the foregoing is true and correct

ACKNOWLEDGMENT

STATE OF WISCONSIN)
COUNTY OF ROCK)SS.
)

JACQUELINE A HALVERSON
Notary Public
State of Wisconsin

On the 1 day of April, 2022, before me personally appeared Gregory Piefer, Ph.D., personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the foregoing instrument, who, being duly sworn, did depose and say that he executed the same in his authorized capacity as the Chief Executive Officer of SHINE Technologies, LLC, and acknowledged the instrument to be the free act and deed of SHINE Technologies, LLC for the uses and purposes mentioned in the instrument.

My Commission Expires: Sept 27, 2024

Jacqueline A Halverson
Notary Public
Printed Name:

Date: 4/1/2022 Signature of _____ for Phoenix LLC as ASSIGNOR
Typed Name: Jessica Giffey
Title: General Manager, Systems and Manufacturing

I declare under penalty of perjury under the laws of the United States of America, and under the penalty of the laws of any other jurisdiction before which this document may be presented, that I have signed this document as my own free act and that all of the foregoing is true and correct.

ACKNOWLEDGMENT

STATE OF WISCONSIN)
)SS.
COUNTY OF DANE)

On the 5th day of April, 2022, before me personally appeared Jessica Giffey, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the foregoing instrument, who, being duly sworn, did depose and say that she executed the same in her authorized capacity as the General Manager of Phoenix LLC, and acknowledged the instrument to be the free act and deed of Phoenix LLC for the uses and purposes mentioned in the instrument.

_____
Notary Public
Printed Name: Abby Vogt

My Commission Expires:
March 27, 2023

ABBY VOGT
Notary Public
State of Wisconsin

SCHEDULE 1

ASSIGNED PATENTS AND PATENT APPLICATIONS

Title	Country	Application Number	Filing Date	Patent Number	Grant Date	Status
Fast Burst and Steady-State Intense Neutron Source	DE	15812124.4	3/17/2015	602015017250.7	9/26/2018	Granted
Fast Burst and Steady-State Intense Neutron Source	EP	15812124.4	3/17/2015	3120363	9/26/2018	Granted
Fast Burst and Steady-State Intense Neutron Source	FR	15812124.4	3/17/2015	3120363	9/26/2018	Granted
Fast Burst and Steady-State Intense Neutron Source	GB	15812124.4	3/17/2015	3120363	9/26/2018	Granted
Fast Burst and Steady-State Intense Neutron Source	US	15/125,855	9/13/2016	10,123,405	11/6/2018	Granted
Fast Burst and Steady-State Intense Neutron Source	DE	16194880.7	10/20/2016	602015055629.1	7/8/2020	Granted
Fast Burst and Steady-State Intense Neutron Source	EP	16194880.7	10/20/2016	3214622	7/8/2020	Granted
Fast Burst and Steady-State Intense Neutron Source	GB	16194880.7	10/20/2016	3214622	7/8/2020	Granted
Fast Burst and Steady-State Intense Neutron Source	FR	16194880.7	10/20/2016	3214622	7/8/2020	Granted
Fast Burst and Steady-State Intense Neutron Source	US	17/401,725	8/13/2021			Pending
Gas Jet Deflection in Pressurized Systems	PCT	PCT/US2020/042307	7/16/2020			Expired
Gas Jet Deflection in Pressurized Systems	US	16/930,840	7/16/2020			Pending
Gas Jet Deflection in Pressurized Systems	EP	20844203.8	2/1/2022			
Gas Jet Deflection in Pressurized Systems	JP	2022-503514	1/18/2022			
Gas Jet Deflection in Pressurized Systems	CA	3143975	1/13/2022			

Title	Country	Application Number	Filing Date	Patent Number	Grant Date	Status
Gas Jet Deflection in Pressurized Systems	AU	2020318462	1/18/2022			
Gas Jet Deflection in Pressurized Systems	CN	202080052038.7	1/18/2022			
Gas Jet Deflection in Pressurized Systems	IN	202217007390	2/11/2022			
Gas Jet Deflection in Pressurized Systems	KR	10-2022-7005045	2/15/2022			
Gas Jet Deflection in Pressurized Systems	BR	112022000813-9	1/17/2022			
Gas Jet Deflection in Pressurized Systems	ZA	2022/00830	1/18/2022			
Gas Jet Deflection in Pressurized Systems	RU	2022101401	1/21/2022			
Gas Jet Deflection in Pressurized Systems	UA	202200291	1/24/2022			
High Energy Proton or Neutron Source	CA	2710985	12/29/2008	2710985	3/21/2017	Granted
High Energy Proton or Neutron Source	CH	08874437.0	12/29/2008	2236016	8/9/2017	Granted
High Energy Proton or Neutron Source	CN	200880125694.4	12/29/2008	ZL20088125694.4	5/28/2014	Granted
High Energy Proton or Neutron Source	DE	08874437.0	12/29/2008	602008051585.0	8/9/2017	Granted
High Energy Proton or Neutron Source	EP	08874437.0	12/29/2008	2236016	8/9/2017	Granted
High Energy Proton or Neutron Source	FR	08874437.0	12/29/2008	2236016	8/9/2017	Granted
High Energy Proton or Neutron Source	GB	08874437.0	12/29/2008	2236016	8/9/2017	Granted
High Energy Proton or Neutron Source	IN	2615/KOLNP/2010	12/29/2008			Pending
High Energy Proton or Neutron Source	JP	2010-540933	12/29/2008	5653757	11/28/2014	Granted
High Energy Proton or Neutron Source	KR	20107016871	12/29/2008	10-1591688	1/29/2016	Granted

Title	Country	Application Number	Filing Date	Patent Number	Grant Date	Status
High Energy Proton or Neutron Source	RU	20100126346	12/29/2008	2496285	10/20/2013	Granted
High Energy Proton or Neutron Source	US	12/810,958	7/26/2010	8,837,662	9/16/2014	Granted
High Power Ion Beam Generator Systems and Methods	AU	2018214488	1/17/2018			Pending
High Power Ion Beam Generator Systems and Methods	CA	3050512	1/17/2018			Pending
High Power Ion Beam Generator Systems and Methods	EP	18748206.2	1/17/2018			Pending
High Power Ion Beam Generator Systems and Methods	IN	201917033146	1/17/2018			Pending
High Power Ion Beam Generator Systems and Methods	JP	2019-538501	1/17/2018			Pending
High Power Ion Beam Generator Systems and Methods	KR	10-2019-7024061	1/17/2018			Pending
High Power Ion Beam Generator Systems and Methods	US	15/873,664	1/17/2018	10,206,273	2/12/2019	Granted
High Power Ion Beam Generator Systems and Methods	ZA	2019/05413	1/17/2018	2019/05413	2/24/2021	Granted
High Power Ion Beam Generator Systems and Methods	US	16/196,697	11/20/2018	10,453,654	10/22/2019	Granted
High Power Ion Beam Generator Systems and Methods	US	16/196,710	11/20/2018	10,438,773	10/8/2019	Granted
High Power Ion Beam Generator Systems and Methods	US	16/196,733	11/20/2018	10,506,701	12/10/2019	Granted
High Power Ion Beam Generator Systems and Methods	US	16/196,740	11/20/2018	10,609,808	3/31/2020	Granted

Title	Country	Application Number	Filing Date	Patent Number	Grant Date	Status
High Power Ion Beam Generator Systems and Methods	US	16/196,766	11/20/2018	10,701,792	6/30/2020	Granted
High Power Ion Beam Generator Systems and Methods	US	16/196,752	11/20/2018	10,426,002	9/24/2019	Granted
High Power Ion Beam Generator Systems and Methods	US	16/196,556	11/20/2018	10,470,288	11/5/2019	Granted
High Power Ion Beam Generator Systems and Methods	US	16/196,720	11/20/2018	10,470,287	11/5/2019	Granted
High Power Ion Beam Generator Systems and Methods	US	16/742,186	1/14/2020			Pending
High Power Ion Beam Generator Systems and Methods	ZA	2020/05001	8/13/2020			Pending
High Reliability, Long Lifetime, Negative Ion Source	BE	14823289.5	6/26/2014	3020060	10/30/2019	Granted
High Reliability, Long Lifetime, Negative Ion Source	CH	14823289.5	6/26/2014	3020060	10/30/2019	Granted
High Reliability, Long Lifetime, Negative Ion Source	DE	14823289.5	6/26/2014	602014056049.0	10/30/2019	Granted
High Reliability, Long Lifetime, Negative Ion Source	EP	14823289.5	6/26/2014	3020060	10/30/2019	Granted
High Reliability, Long Lifetime, Negative Ion Source	FR	14823289.5	6/26/2014	3020060	10/30/2019	Granted
High Reliability, Long Lifetime, Negative Ion Source	GB	14823289.5	6/26/2014	3020060	10/30/2019	Granted
High Reliability, Long Lifetime, Negative Ion Source	IN	11970/DELNP/2015	6/26/2014			Pending
High Reliability, Long Lifetime, Negative Ion Source	IR	14823289.5	6/26/2014	3020060	10/30/201	Granted

Title	Country	Application Number	Filing Date	Patent Number	Grant Date	Status
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High Reliability, Long Lifetime, Negative Ion Source	JP	2016-525367	6/26/2014	6407991	9/28/2018	Granted
High Reliability, Long Lifetime, Negative Ion Source	KR	10-2016-7003453	6/26/2014	10-1799915	11/15/2017	Granted
High Reliability, Long Lifetime, Negative Ion Source	RU	2016102828	6/26/2014	2615756	4/11/2017	Granted
High Reliability, Long Lifetime, Negative Ion Source	SE	14823289.5	6/26/2014	3020060	10/30/2019	Granted
High Reliability, Long Lifetime, Negative Ion Source	US	14/903,747	1/8/2016	9,847,205	12/19/2017	Granted
High Reliability, Long Lifetime, Negative Ion Source	US	15/846,752	12/19/2017	10,297,412	5/21/2019	Granted
High Reliability, Long Lifetime, Negative Ion Source	US	16/416,423	5/20/2019	10,950,409	3/16/2021	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	BE	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	CA	2784115	12/14/2010	2784115	2/6/2018	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	CH	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	DE	10841534.0	12/14/2010	602010062984.8	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	DK	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	EP	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	ES	10841534.0	12/14/2010	2784048	2/5/2020	Granted

Title	Country	Application Number	Filing Date	Patent Number	Grant Date	Status
Method and Apparatus for Performing Active Neutron Interrogation of Containers	FR	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	GB	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	GR	10841534.0	12/14/2010	3103301	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	IR	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	IT	10841534.0	12/14/2010	502020000038335	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	JP	2012-544715	12/14/2010	6002579	9/9/2016	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	JP	2015-203761	12/14/2010	6208730	9/15/2017	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	NL	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	NO	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	PT	10841534.0	12/14/2010	20201000017118	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	SE	10841534.0	12/14/2010	2513640	2/5/2020	Granted
Method and Apparatus for Performing Active Neutron Interrogation of Containers	US	13/515,487	12/14/2010	9,024,261	5/5/2015	Granted
Neutron Activation and Detection of Hazardous, Undesirable, or High Value Material	EP	20769006.6	2/20/2020			Pending
Neutron Activation and Detection of Hazardous, Undesirable, or High Value Material	JP	2021-549302	2/20/2020			Pending
Neutron Activation and Detection of Hazardous, Undesirable, or High Value Material	US	16/796,000	2/20/2020			Pending
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	BE	17858843	6/9/2017	3469341		Granted

Title	Country	Application Number	Filing Date	Patent Number	Grant Date	Status
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	BR	11 2018 075461 7	6/9/2017			Pending
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	CH	17858843.0	6/9/2017	3469341		Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	CN	201780048327.8	6/9/2017			Pending
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	DE	17858843.0	6/9/2017	3469341	4/21/2021	Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	DK	17858843.0	6/9/2017	3469341	4/21/2021	Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	EP	17858843	6/9/2017	3469341	4/21/2021	Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	FR	17858843.0	6/9/2017	3469341	4/21/2021	Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	GB	17858843.0	6/9/2017	3469341	4/21/2021	Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	IN	201917000536	6/9/2017			Pending
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	IR	17858843.0	6/9/2017	3469341	4/21/2021	Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	JP	2018-564980	6/9/2017			Pending
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	KR	10-2019-7000630	6/9/2017			Pending
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	NL	17858843.0	6/9/2017	3469341	4/21/2021	Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	RU	2018145437	6/9/2017	2749836	6/17/2021	Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	SE	17858843.0	6/9/2017	3469341	4/21/2021	Granted
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	UK	2018 12090	6/9/2017			Pending
System and Method for Performing Active Scanning of a	US	15/618,590	6/9/2017	10,896,768	1/19/2021	Granted

Title	Country	Application Number	Filing Date	Patent Number	Grant Date	Status
Nuclear Fuel Rod						
System and Method for Performing Active Scanning of a Nuclear Fuel Rod	US	17/152,008	1/19/2021			Pending
Systems and Methods Employing Interchangeable Ion Beam Targets	US	16/915,510	6/29/2020			Pending
Systems and Methods Employing Interchangeable Ion Beam Targets	PCT	PCT/US2020/040150	6/29/2020			Expired
Systems and Methods Employing Interchangeable Ion Beam Targets	EP	20834138.8	12/31/2021			Pending
Systems and Methods Employing Interchangeable Ion Beam Targets	JP	2021-578178	12/29/2021			Pending