05/22/2019 505488450

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5535254

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HIROKI OSHIMA	05/20/2019
TAKEO SAITOH	05/20/2019
TAKAHIRO NISHIZAKI	05/20/2019
TOMOHISA KAWANAGO	05/20/2019
MASATO SHIRATORI	05/20/2019
KAICHI TSURUTA	05/20/2019

RECEIVING PARTY DATA

Name:	SENJU METAL INDUSTRY CO., LTD.	
Street Address:	23, SENJU-HASHIDO-CHO, ADACHI-KU	
City:	TOKYO	
State/Country:	JAPAN	
Postal Code:	120-8555	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16419294

CORRESPONDENCE DATA

Fax Number: (412)471-4094

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: 412-471-8815

Email: assignments@webblaw.com THE WEBB LAW FIRM, P.C. **Correspondent Name:** Address Line 1: ONE GATEWAY CENTER

Address Line 2: 420 FT. DUQUESNE BLVD, SUITE 1200 Address Line 4: PITTSBURGH, PENNSYLVANIA 15222

ATTORNEY DOCKET NUMBER:	7466-1901811
NAME OF SUBMITTER:	RUSSELL D. ORKIN REG. #25363
SIGNATURE:	/Russell D. Orkin/
DATE SIGNED:	05/22/2019

PATENT REEL: 049253 FRAME: 0324 505488450

Total Attachments: 7 source=Recordation Cover Sheet#page1.tif source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif

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> PATENT REEL: 049253 FRAME: 0325

RECORDATION FORM COVER SHEET		
PATENTS ONLY		
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.		
1. Name of conveying party(ies) Hiroki OSHIMA Takeo SAITOH Masato SHIRATORI Takahiro NISHIZAKI Kaichi TSURUTA	2. Name and address of receiving party(ies) Name: Senju Metal Industry Co., Ltd. Internal Address:	
Tomohisa KAWANAGO Additional name(s) of conveying party(ies) attached? Yes ✓ No. Nature of conveyance/Execution Date(s): Execution Date(s) May 20, 2019	Street Address: 23, Senju-Hashido-cho, Adachi-ku	
Assignment Merger Security Agreement Change of Name Joint Research Agreement	City: Tokyo State:	
Government Interest Assignment Executive Order 9424, Confirmatory License Other	Country: JAPAN Zip: 120-8555 Additional name(s) & address(es) attached? Yes No	
A. Patent Application No.(s) 16/419,294	document serves as an Oath/Declaration (37 CFR 1.63). B. Patent No.(s) B. Patent No.(s)	
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:	
Name: Russell D. Orkin	7. Total fee (37 CFR 1.21(h) & 3.41) \$ <u>0</u>	
Street Address: One Gateway Center 420 Ft. Duquesne Blvd., Ste 1200	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)	
City: Pittsburgh	8. Payment Information	
State: <u>PA</u> Zip: <u>15222</u>		
Phone Number: 412-471-8815 Docket Number: 7466 - 1901811 Email Address: assignments@webblaw.com	Deposit Account Number	
9. Signature: /Russell D. Orkin	/ May 22, 2019	
Signature Russell D. Orkin Name of Person Signing Documents to be recorded (including cover shee	Total number of pages including cover sheet, attachments, and documents: 7 t) should be faxed to (571) 273-0140, or mailed to: f the USPTO P.O. Box 1450. Alexandria, V.A. 22313-1450.	

PATENT

REEL: 049253 FRAME: 0326

	INTERNATIONAL Application No.
	Attorney Docket No7466-1901811
	<u>assignment</u>
impr	WHEREAS, as a below named inventor, I have invented certain new and useful overments in
	SOLDER BALL, SOLDER JOINT, AND JOINING METHOD
	(Invention Title)
X	for which I have this day executed an application for a United States Patent (hereinafter "said application").
AND	/OR
	for which an application for a United States Patent was filed on(mm/dd/yyyy) and bears Application Number (hereinafter "said application").
AND	
	for which an international patent application was filed under the Patent Cooperation Treaty
8	on amazama bearing Application No. (hereinafter

AND, WHEREAS, Senju Metal Industry Co., Ltd., a corporation of Japan, having a place of business at 23, Senju-Hashido-cho, Adachi-ku, Tokyo 120-8555, Japan, hereinafter called the "assignee", is desirous of acquiring the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed.

NOW, THEREFORE, for good and valuable consideration paid to me by said assignee, the receipt of which is hereby acknowledged, I as the inventor or as one of the inventors, hereinafter the assignor(s), do hereby assign, sell and transfer unto said assignee the full and exclusive right, title and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries, including rights of priority under the International Convention of Paris (1883) as amended, and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, continuations-in-part, renewals and/or extensions thereof. Such assignment extends to the full ends of the terms of these applications and patents as fully and entirely as the same would have been held and enjoyed by me had this Assignment not been made.

I hereby authorize and request any attorney associated with The Webb Law Firm, Customer No. 28289, to insert here in parentheses (Application No. 16/419,294 filed 05/22/2019) the filing date and application number of said application when known.

I covenant that I am the lawful owner(s) of said application, inventions and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that I have the full right to make this Assignment.

Page 1 of 5

"said application").

1	NTERNATIONAL
Application I	No
Attorney Docket No.	7466-1901811

And for the consideration aforesaid, I agree individually and, if applicable, jointly that I will communicate to said assignce or the representatives thereof any facts known to me respecting said inventions and improvements, and will, upon request but without expense to me, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, continuation-in-part, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts deemed necessary or expedient by said assignee or by counsel for said assignee to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This Assignment shall be binding upon my heirs, executors, administrators and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors and/or assigns, as the case may be, of said assignee.

1. FULL NAME OF ASSIGNOR:	RESIDENCE:
Míroki OSHIMA	Tokyo, Japan
EXECUTED this 20th day of May	, 2019
	Wich Osting
	Signature
VVI WALL VICA A	
WITNESS:	
Miroki Taruni	
2. FULL NAME OF ASSIGNOR:	RESIDENCE:
Takeo SATTOH	Tochigi, Japan
EXECUTED this 20% day of May	2619
Zario o iza mia migration o mining	Taken SAITOH
	Signature
WITNESS:	
Hirok: Tarum;	
THE STATE OF THE S	
Checked Box indicates2 additional page 2	age(s) for inventor signatures.
ACTICE AND TYPEY PAGE	e 2 af 5

PATENT REEL: 049253 FRAME: 0328

	INTERNATIONAL Application No
	Attorney Docket No
3. FULL NAME OF ASSIGNOR: Takabiro NISHIZAKI	RESIDENCE: California, United States
EXECUTED this 2014 day of 4 AY	
	SIGNATURE
WITNESS: Mirok; Tarum;	
4. FULL NAME OF ASSIGNOR: Tomobisa KAWANAGO	RESIDENCE: Tochigi, Japan
EXECUTED thisday of	_ ; 2 019
WITNESS:	SENATURE
5. FULL NAME OF ASSIGNOR: MESSAGO SHIRATORI	RESIDENCE: Tochigi, Japan
EXECUTED thisday of	
	SKINATURE
WITNESS:	

Page 3 of 5

4H19840.DOCX

	INTERNATIONAL
Application	No

	Attorney Docket No. <u>7466-190181</u>
3. FULL NAME OF ASSIGNOR: Takabiro NISHIZAKI	RESIDENCE: California, United States
EXECUTED thisday of	., 2019
	Signature
WITNESS:	
4. FULL NAME OF ASSIGNOR:	RESIDENCE:
Tomohisa KAWANAGO	Tochigi, Japan
EXECUTED this 2014 day of May	2019
	Tombian Kauprago
77 77 77 77 77 77 77 77 77 77 77 77 77	SIGNAY ONS
witness: <u>)lirok: Tarum:</u>	
5. FULL NAME OF ASSIGNOR: Massic SNIKATORI	RESIDENCE: Tochigi, Japan
EXECUTED this 20th day of May	
	Musaro Shiratori Signature
WITNESS: Hiroki Tarumi	···

4H19840.DOCX

Page 3 of 5

	INTERNATIONAL Application No.		
	Attorney Docket No. 7466-1981	<u>811</u>	
6. FULL NAME OF ASSIGNOR: Krichi TSURUTA	RESIDENCE: Tochigi, Japan		
EXECUTED this 2014day of 1924			
***************************************	Maida Josepha Signature		

WITNESS: Hirok: Tarani

			INTERNATIONAL	
Application No.		eptsomm.	_appserial>	
Attorney Docket No.	ematter	choode»-«matter	matcode»	

Page 5 of 5

PATENT REEL: 049253 FRAME: 0332

RECORDED: 05/22/2019