PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT4967079

CONVEYING PARTY DATA

Name	Execution Date
KENGO ASAI	03/27/2018
HIROYASU SHICHI	03/27/2018
HISAYUKI TAKASU	03/27/2018
TORU IWAYA	04/02/2018

RECEIVING PARTY DATA

Name:	HITACHI HIGH-TECHNOLOGIES CORPORATION
Street Address:	24-14, NISHI SHIMBASHI 1-CHOME
City:	MINATO-KU, TOKYO
State/Country:	JAPAN
Postal Code:	105-8717

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15500449

CORRESPONDENCE DATA

Fax Number: (703)610-8686

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: 7039039000

Email: tpurifoy@milesstockbridge.com, ipdocketing@milesstockbridge.com

Correspondent Name: ERIC G. KING

Address Line 1: MILES & STOCKBRIDGE PC

Address Line 2: 1751 PINNACLE DRIVE, SUITE 1500

Address Line 4: TYSONS CORNER, VIRGINIA 22102-3833

ATTORNEY DOCKET NUMBER: T3309-22532US01

NAME OF SUBMITTER: TYNISHA PURIFOY

SIGNATURE: /Tynisha Purifoy/

DATE SIGNED: 05/17/2018

Total Attachments: 4

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PATENT 504920333 REEL: 045838 FRAME: 0449

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PATENT REEL: 045838 FRAME: 0450

ASSIGNMENT

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi High-Technologies Corporation a corporation organized under the laws of Japan,

located at 24-14, Nishi-Shimbashi 1-chome, Minato-ku, Tokyo 105-8717, Japan receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi High-Technologies Corporation its successor and assigns, all my right, title and interest, in and for the United States of America, in and to

ION MILLING DEVICE, ION SOURCE, AND ION MILLING METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said. Hitachi High-Technologies Corporation

INVENTOR(S)

(発明者フルネームサイン)

its successor, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi High-Technologies Corporation

Signed on the date(s) indicated aside our signatures:

1)	Kengo Asai	Kengo ASAI	3/27/2018
2)		Hiroyasu SHICHI	
3)		Hisayuki TAKASU	
4)	y	Toru IWAYA	
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7)		NORTH CONTRACTOR OF THE CONTRA	
8)		***************************************	
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PATENT REEL: 045838 FRAME: 0451

Date Signed

(署名日)

ASSIGNMENT

(譲渡証)

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Signed on the date(s) indicated aside our signatures:

INVENTOR(S) (発明者フルネームサイン) Date Signed (署名日)

1)	V	Mardi 27. 2018
3)	Hisayuki TAKASU	
4)	Toru IWAYA	***************************************
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PATENT REEL: 045838 FRAME: 0452

ASSIGNMENT (譲 渡 証)

As a below named inventor, I hereby declare that:

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to be held and enjoyed by said. Hitachi High-Technologies Corporation.

INVENTOR(S)

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Signed on the date(s) indicated aside our signatures:

	(発明者フルネームサイン)	(署名日)
1)	Kengo ASAI	
2)	Hiroyasu SHICHI	Maga
3) <u>Hungs</u>	2 Fahaw Hisayuki TAKASU	3/29/2018
4)	Toru IWAYA	
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10)	***************************************	

PATENT REEL: 045838 FRAME: 0453

Date Signed

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Signed on the date(s) indicated aside our signatures:

RECORDED: 05/17/2018

	INVENTOR(S) (発明者フルネームサイン)	Date Signed (署名日)
1)_	Kengo ASAI	
2)_	Hiroyasu SHICHI	
3)_	Hisayuki TAKASU	
4) _	For Luaya Toru IWAYA	April 2. 2018
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