PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MOTOHIRO TAKAHASHI	12/11/2018
MASAKI MIZUOCHI	12/13/2018
SHUICHI NAKAGAWA	12/10/2018
HIRONORI OGAWA	12/11/2018
TAKANORI KATO	12/11/2018

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16315700	

CORRESPONDENCE DATA

Fax Number: (703)684-1157

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: 703-684-1120

Email:svannarath@mmiplaw.comCorrespondent Name:MATTINGLY & MALUR, PCAddress Line 1:1800 DIAGONAL ROAD

Address Line 2: SUITE 210

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	POL-11898
NAME OF SUBMITTER:	JOHN R. MATTINGLY
SIGNATURE:	/John R. Mattingly/
DATE SIGNED:	01/07/2019
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Total Attachments: 3

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> PATENT REEL: 047916 FRAME: 0407

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, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi High-Technologies Corporation, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

STAGE DEVICE AND CHARGED PARTICLE BEAM DEVICE

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, its successors, 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 signatures:

	INVENTOR(S) (発明者フルネームサイン)	Date Signed (署名日)
1) Motohiro TAKAH	IASHI Motohiro Zakahashi	12 / 11 / 2018
2) Masaki MIZUOC	HI .	
3) Shuichi NAKAGA	AWA	
4) <u>Hironori OGAWA</u>	Hironori Ogawa	12/11/2018
5) <u>Takanori KATO</u>	Hironori Ogawa Takanari Kato	12/11/2018
6)	· ·	-
7)		
8)		
9)	On Application	
0)		

PATENT REEL: 047916 FRAME: 0408

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, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi High-Technologies Corporation, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

STAGE DEVICE AND CHARGED PARTICLE BEAM DEVICE

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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 signatures:

INVENTOR(S)

(発明者フルネームサイン)

1) Motohiro TAKAHASHI
2) Masaki MIZUOCHI Masaki Mizuochi /2/13/2018
3) Shuichi NAKAGAWA
4) Hironori OGAWA
5) Takanori KATO
6) ...

PATENT REEL: 047916 FRAME: 0409

Date Signed

(署名日)

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, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi High-Technologies Corporation, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

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Signed on the date(s) indicated aside signatures:

	· INVENTOR(S) (発明者フルネームサイン)		Date Signed (署名日)
1)	Motohiro TAKAHASHI	-	
2)	Masaki MIZUOCHI	-	
3)	Shuichi NAKAGAWA - Phuichi Nakagawa		12/10/2018
4)	Hironori OGAWA	-	
5)	Takanori KATO	-	
6)	·		
		-	
8)	<u> </u>	-	
9)			
10)			

PATENT REEL: 047916 FRAME: 0410

RECORDED: 01/07/2019