503762413 03/31/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YUZURU MIZUHARA	06/30/2015
MIKI ISAWA	06/30/2015
MINORU YAMAZAKI	06/30/2015
HITOSHI TAMURA	06/22/2015
HIDEYUKI KAZUMI	06/30/2015

RECEIVING PARTY DATA

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State/Country:	JAPAN	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14760259

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DATE SIGNED:	03/31/2016	

Total Attachments: 1

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PATENT 503762413 REEL: 038153 FRAME: 0925

ASSIGNMENT OF APPLICATION

Whereas, I (We),

- 1) Yuzuru MIZUHARA, a national of Japan,
- 2) Miki ISAWA, a national of Japan,
- 3) Minoru YAMAZAKI, a national of Japan,
- 4) Hitoshi TAMURA, a national of Japan,
- 5) Hideyuki KAZUMI, a national of Japan,

c/o HITACHI HIGH-TECHNOLOGIES CORPORATION, 24-14, Nishi Shimbashi 1-chome, Minato-ku, Tokyo, Japan

, hereinafter referred to as inventor(s), respectively, have invented certain new and useful improvements in:
"CHARGED PARTICLE BEAM APPARATUS"

(Application No. PCT/JP2014/051171, filed on January 22, 2014) (the

"Application"); and

Whereas, HITACHI HIGH-TECHNOLOGIES CORPORATION, a corporation organized under the laws of Japan whose mailing address 24-14, Nishi Shimbashi 1-chome, Minato-ku, Tokyo, Japan and its successors, transferees, and assignees (collectively the "Assignee") is (are) desirous of acquiring interests in the entire right, title and interest throughout the world in the subject matter (the "Subject Matter") of the Application:

Now, therefore, in consideration of the sum of One dollar (\$1.00), the receipt whereof is acknowledged, and for other good and valuable consideration, I (we), by these presents do sell, assign and transfer unto said assignee(s), (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

And I (we) hereby agree that I (we) will communicate to the Assignee or their representatives any facts known to me (us) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation in part, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said assignees, make all rightful oaths and declarations, and generally do everything possible to aid said assignees, their successors and assigns, to obtain and enforce proper protection for said invention in every country or region throughout the world.

Signed on the date(s) indicated aside signatures: Date Signed INVENTOR(S) 6/30/2015 Tuzura Mizuhara 1) Yuzuru MIZUHARA 6/30/2015 2) 6/30/2015 Minorie Janapake 3) 4) Hodenski Xazumi 8) 6) 7)

> PATENT REEL: 038153 FRAME: 0926

RECORDED: 03/31/2016