

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
AKIRA HORIBA	02/12/2019
TARO SHIRAI	02/12/2019
TAKAHIRO DOKI	02/12/2019
SATOSHI SANO	02/12/2019
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<b>City:</b>	KYOTO
<b>State/Country:</b>	JAPAN
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16463305
<b>CORRESPONDENCE DATA</b>	
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<b>NAME OF SUBMITTER:</b>	PATRICK MUIR
<b>SIGNATURE:</b>	/Patrick Muir/
<b>DATE SIGNED:</b>	11/25/2019
<b>Total Attachments: 2</b>	
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**ASSIGNMENT**

The undersigned, hereinafter referred to collectively as "Assignor," has an interest in the invention(s) (the "Invention(s)") set forth in an application for patent of the United States or in an International application, entitled:

**X-RAY PHASE IMAGING APPARATUS**

which names the undersigned inventor(s) and is a:

- (1)  Provisional Patent Application No. \_\_\_\_\_;
- (2)  Non-Provisional Application
  - (a)  along with a Declaration signed today with this assignment;
  - (b)  where the Declaration was signed on \_\_\_\_\_; or
  - (c)  filed on September 6, 2017, and assigned Serial No. \_\_\_\_\_ or PCT International Application No. PCT/JP2017/032073.

In consideration of promises and/or other good and valuable considerations, the receipt and sufficiency of which is hereby acknowledged, the undersigned, who have made a certain new and useful invention(s), hereby sell, assign and transfer unto

**SHIMADZU CORPORATION**

having an address at 1, Nishinokyo-Kuwabaracho, Nakagyo-ku, Kyoto-shi, Kyoto 604-8511 Japan, its successors and assigns (hereinafter designated "Assignee") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention described in the application for patent identified in (1) or (2).

Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, to:

- (a) the Invention(s);
- (b) the application for patent identified in (1) or (2) above;
- (c) the right to file applications for patent of the United States or other countries on the Invention(s), including the right to claim priority and all other rights under the laws of the United States, other countries, the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;
- (d) any application(s) for patent of the United States or other countries claiming the Invention(s);
- (e) any application(s) for patent of the United States or other countries claiming priority to the application for patent identified in (1) or (2) above, including any non-provisional application(s), international applications, division(s), continuation(s), and continuations-in-part;
- (f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b)-(e); and
- (g) any patent(s) of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b)-(e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment.

Assignor agrees to cooperate with Assignee and its successors and execute all instruments or documents requested for the making and prosecution of any applications of any type for patent in the United States and in all foreign countries including, but not limited to the following: provisional, continuation, continuation-in-part, divisional, renewal or substitute, reissue, re-examination, or extension. Assignor agrees to cooperate with Assignee and its successors in any litigation regarding the invention, patents or applications regarding the invention, and render all necessary assistance deemed essential to Assignee's or its successor's full protection and title in and to the Invention hereby transferred without further or other compensation than that provided in this Assignment; the undersigned agree that the attorneys of record in said application shall hereafter act on behalf of said Assignee.

Assignor requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and request that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications, issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

Assignor hereby grants the firm of MUIR PATENT LAW, PLLC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of any issuing authority, including the United States Patent and Trademark Office, for recordation of this document.

**Inventor/Assignor Signature:**

Akira Horiba (signature)  
Assignor: **Akira HORIBA**

12/February, 2019  
Date

Taro Shirai (signature)  
Assignor: **Taro SHIRAI**

12/February, 2019  
Date

Takahiro Doki (signature)  
Assignor: **Takahiro DOKI**

12/February, 2019  
Date

Satoshi Sano (signature)  
Assignor: **Satoshi SANO**

12/February, 2019  
Date