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103374533 macried documents or the new address(es) below. To the Director of the U.S. Patent and True 1. Name of conveying party(ies) 2. Name and address of receiving party(ies) HIROSHI HORIUCHI Name: KABUSHIKI KAISHA TOSHIBA HIROSHI AIDA Internal Address: Additional name(s) of conveying party(ies) attached?  $oxedsymbol{oxedsymbol{oxed}{oxedsymbol{\mathsf{Z}}}}$  No 3. Nature of conveyance/Execution Date(s): Street Address: 1-1, Shibaura 1-chome, Minato-ku Execution Date(s) December 14, 2006 & December 21, 2006 X Assignment Merger Security Agreement Change of Name Joint Research Agreement State: Government Interest Assignment 105-8001 Country: Japan Zip: Executive Order 9424, Confirmatory License Other Additional name(s) & address(es) attached? X Yes No 4. Application or patent number(s): This document is being filed together with a new application. A. Patent Application No.(s) B. Patent No.(s) 11/641,696 02/22/1007 DEYRNE 00000115 033975 11641696 of F0: 1081 40.00 DA Additional numbers attached? Yes No 5. Name and address to whom correspondence 6. Total number of applications and patents concerning document should be mailed: involved: Name: PILLSBURY WINTHROP SHAW PITTMAN LLP 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00 Internal Address: P.O. Box 10500 X Authorized to be charged to deposit account Enclosed Street Address: 1650 Tysons Boulevard None required (government interest not affecting title) 008312-0359224 8. Payment Information City: McLean a. Credit Card Last 4 Numbers VA 22102 State: Zip: Expiration Date \_ Phone Number: (703) 770-7900 b. Deposit Account Number 033975 Fax Number: (703) 770-7901 Authorized User Name \_\_\_ Email Address: thomas.hilliard@pillsburylaw.com 9. Signature: 1246465 February 20, 2007 WILLIAM 111228 ignature Thomas P. Hilliard, Reg. No. 40330 Total number of pages including cover sheet, attachments, and documents:

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Name of Person Signing

ATTACHMENT FOR RECORDATION FORM COVER SHEET PATENTS ONLY (Form PTO-1595)				
Name of conveying party(ies):				
Additional name(s) of conveying party(ies) attached?	☐ Yes ☒ No			
Name and address of receiving party(ies)				
Name: Toshiba Electron Tubes & Devices Co., Ltd.				
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City: Tochigi-ken, Japan State:				
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Name:				
Internal Address:	<del></del>			
Street Address:				
City: State:	ZIP:			
Additional name(s) & address(es) attached?	Yes X No			
4. Application number(s) or patent number(s):				
If this document is being filed together with a new appli	cation, the execution da	ate of the application is:		
A. Patent Application No.(s)	B. Pate	ent No.(s)		
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	••••			
Additional numbers attached?	🖵 Yes 🔀 No			

PATENT REEL: 018947 FRAME: 0805 In consideration of value received, I, having a residence as stated below above my name, the sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are listed below) of an invention described in an application for United States patent entitled:

## METHOD FOR MANUFACTURING X-RAY DETECTOR AND X-RAY DETECTOR

sell and assign to

- 1. KABUSHIKI KAISHA TOSHIBA, a Japanese corporation, having a business address at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan; and
- 2. Toshiba Electron Tubes & Devices Co.,Ltd., a Japanese corporation, having a business address at 1385, Shimoishigami, Otawara-shi, Tochigi-ken, Japan

its successors, assigns or nominees, hereinafter referred to as "Assignee", my entire right, title and interest in and to said invention as disclosed, shown and described in said United States patent application:

(check one)	[X]	executed concurrently herewith		
	[ ]	executed on	;	
	[ ]	Application No.	, filed	;

and in and to all applications for patent and patents for invention including all divisions, reissues, continuations, substitutes and extensions thereof and all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property, including rights of priority, resulting from the filing of any of said applications; and I authorize and request any official whose duty is to issue patents, to issue any patent on said invention or resulting therefrom to said Assignee, and I agree that on request and without further consideration, but at the expense of said Assignee, I will communicate to said Assignee or its representatives all facts known to me respecting said invention and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing, continued prosecution, reissue, or other applications, make all rightful oaths and declarations, and generally do everything possible to aid said Assignee to obtain and enforce proper patent protection for said invention.

I hereby grant the following law firm the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the Rules of the U.S. Patent and Trademark Office for recordation of this document.

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PATENT REEL: 018947 FRAME: 0806

## ASSIGNMENT

5GG300022-USA-A (06S1807-1)

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RECORDED: 02/20/2007

PATENT REEL: 018947 FRAME: 0807