502274978 03/18/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Akiko KAKUTANI	03/01/2013
Kiyoshi HASHIMOTO	03/03/2013
Kiyokazu SATO	03/04/2013
Takeshi YOSHIYUKI	03/11/2013
Tsutomu KURUSU	03/11/2013

RECEIVING PARTY DATA

Name:	KABUSHIKI KAISHA TOSHIBA	
Street Address:	1-1, Shibaura 1-chome, Minato-Ku	
City:	Tokyo	
State/Country:	JAPAN	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	13771818	

CORRESPONDENCE DATA

Fax Number: 7034132220

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (703) 413-3000

Email: bpalmer@oblon.com

Correspondent Name: Oblon, Spivak, et al.

Address Line 1: 1940 Duke Street

Address Line 4: Alexandria, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	412270US2	
NAME OF SUBMITTER:	Brian Palmer	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

PATENT

REEL: 030028 FRAME: 0581

Total Attachments: 5

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Title of Invention	ION SOURCE, HEAVY PARTICLE BEAM IRRADIATION APPARATUS, ION SOURCE DRIVING METHOD, AND HEAVY PARTICLE BEAM			
	IRRADIATION METHOD			
As the below named	d inventor, I hereby declare that:			
This declaration	The attached application, or			
is directed to:	United States application or PCT interr filed on February 20, 2013	ational application number 13/771,818		
The above-identified	d application was made or authorized to	pe made by me.		
I believe that I am th	he original inventor or an original joint in	ventor of a claimed invention in the application.		
	ushiki Kaisha Toshiba			
Japan, is desirous of	of acquiring the entire right, title and in	pusiness at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, erest in and to said invention and in and to any Letters and its territorial possessions and in any and all foreign		
acknowledged, and said ASSIGNEE, the and in all foreign co other relevant International interest in and to an	for other good and valuable consideration of the said involuntries (including the right to claim prior particular Treaties and Arrangements from any and all Letters Patent which may be any and all foreign countries and in	IVE DOLLARS (\$5.00), the receipt whereof is hereby on, I, by these presents do sell, assign and transfer unto ention in the United States and its territorial possessions rity under the terms of the International Convention and the aforesaid application) and the entire right, title and granted therefor in the United States and its territorial and to any and all divisions, reissues, continuations,		
assignee of my entire (his) successors and	countries to issue any and all of said L to right, title and interest in and to the sa	in the United States and its territorial possessions and etters Patent, when granted, to said ASSIGNEE as the me, for the sole use and behoof of said ASSIGNEE, its which said Letters Patent may be granted, as fully and signment and sale not been made.		
Further, I agree to respecting said invector continuation, substitutionall of said Letters P possible to aid said.	hat I will communicate to said ASSIGN ention, and testify in any legal proce- ute, renewal and reissue applications, ex eatent to be issued to said ASSIGNEE,	NEE or its (his) representatives any facts known to me eding, sign all lawful papers, execute all divisional, ecute all necessary assignment papers to cause any and make all rightful oaths, and, generally do everything signs, to obtain and enforce proper protection for said		
by line or imprisonm	ent of not more than five (5) years, or bo	e in this declaration is punishable under 18 U.S.C. 1001 th.		
LEGAL NAME OF I	INVENTOR			
Inventor: Akiko KA	AKUTANI	Date: Much 1, 2013		
Signature:Ak+	to Kelenteni			

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

	Title of Invention	ION SOURCE, HEAVY PARTICLE BEAM IRRADIATION APPARATUS, ION SOURCE DRIVING METHOD, AND HEAVY PARTICLE BEAM				
	A - 4b - 1 - 1	IRRADIATION METHOD				
I	i	d inventor, I hereby declare that:				
I	This declaration	The attached application, or				
	is directed to:	United States application or PCT i filed on February 20, 2013	nternational application	number <u>13/771,818</u>		
l	The above-identified	d application was made or authorize	ed to be made by me.			
l	I believe that I am th	he original inventor or an original jo	int inventor of a claime	d invention in the application.		
	WHEREAS, Kabu (hereinaster referred Japan, is desirous of	ushiki Kaisha Toshiba I to as "ASSIGNEE") having place of acquiring the entire right, title ar	s of business at: 1-1, S	Shibaura 1-chome, Minato-ku, Tokyo, d invention and in and to any Letters ossessions and in any and all foreign		
	said ASSIGNEE, the and in all foreign co- other relevant Intern- interest in and to an	for other good and valuable consider full and exclusive right to the said untries (including the right to claim lational Treaties and Arrangements by and all Letters Patent which may and all foreign countries and	eration, I, by these pres invention in the United priority under the term from the aforesaid apply be granted therefor in	sents do sell, assign and transfer unto d States and its territorial possessions s of the International Convention and lication) and the entire right, title and in the United States and its territorial divisions, reissues, continuations,		
	assignee of my entire (his) successors and	countries to issue any and all of sa e right, title and interest in and to the	aid Letters Patent, when he same, for the sole us a for which said Letters	tes and its territorial possessions and a granted, to said ASSIGNEE as the e and behoof of said ASSIGNEE, its Patent may be granted, as fully and not been made.		
1	Further, I agree the respecting said investible continuation, substituall of said Letters Propossible to aid said and according to the said according to t	hat I will communicate to said AS ention, and testify in any legal pute, renewal and reissue application to be issued to said ASSIGN	SIGNEE or its (his) reproceeding, sign all laws, execute all necessary NEE, make all rightful and assigns, to obtain an	presentatives any facts known to me wful papers, execute all divisional, assignment papers to cause any and oaths, and, generally do everything denforce proper protection for said		
	I hereby acknowle		made in this declaration	n is punishable under 18 U.S.C. 1001		
Í	LEGAL NAME OF I	NVENTOR				
I	Inventor: Kiyoshi H	łashimoto	Date:	March 3, 2013		
S	Signature: K, y	oshi Idashimoto				

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P. ATTORNEYS AT LAW

1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of Invention	ION SOURCE, HEAVY PART SOURCE DRIVING METHOD	ICLE BEAM IRRA), AND HEAVY PA	ADIATION APPARATUS, ION ARTICLE BEAM
	IRRADIATION METHOD		
As the below named	d inventor, I hereby declare that:		
This declaration	The attached application, or		
is directed to:	United States application or PCT infiled on February 20, 2013	ternational application	number 13/771,818
The above-identifie	d application was made or authorized	to be made by me.	
I believe that I am the	he original inventor or an original join	nt inventor of a claimed	d invention in the application.
WHEREAS, Kabi	ushiki Kaisha Toshiba		
Japan, is desirous of	I to as "ASSIGNEE") having places of acquiring the entire right, title and granted therefore in the United State	interest in and to said	d invention and in and to any Letters
acknowledged, and said ASSIGNEE, th and in all foreign co other relevant Intern- interest in and to ar	ORE, in consideration of the sum of for other good and valuable consider e full and exclusive right to the said is puntries (including the right to claim puntries and Treaties and Arrangements for any and all Letters Patent which may any and all foreign countries and newals thereof.	ration, I, by these present the United priority under the terms from the aforesaid appliate granted therefor in	sents do sell, assign and transfer unto d States and its territorial possessions s of the International Convention and lication) and the entire right, title and to the United States and its territorial
assignee of my entir (his) successors and	e and request the Patent Office Office countries to issue any and all of said re right, title and interest in and to the assigns, to the full end of the term twould have been held by me had this	d Letters Patent, when e same, for the sole use for which said Letters	n granted, to said ASSIGNEE as the e and behoof of said ASSIGNEE, its Patent may be granted as fully and
continuation, substitu- all of said Letters P possible to aid said invention in the Unit	hat I will communicate to said ASSI ention, and testify in any legal proute, renewal and reissue applications, ratent to be issued to said ASSIGNE ASSIGNEE, its (his) successors and ed States and its territorial possession	oceeding, sign all lave execute all necessary EE, make all rightful assigns, to obtain and and in any and all for	wful papers, execute all divisional, assignment papers to cause any and oaths, and, generally do everything d enforce proper protection for said reign countries.
by line or imprisonm	edge that any willful false statement n lent of not more than five (5) years, or	nade in this declaration r both.	n is punishable under 18 U.S.C. 1001
LEGAL NAME OF I	INVENTOR		
Inventor: Kiyokazı	SATO	Date:	Morch 4, 2013
Signature: Kiy	okozu Satoh		

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET

ALEXANDRIA, VIRGINIA 22314

Title of Invention	ION SOURCE, HE SOURCE DRIVING IRRADIATION MI	G METHOD, A1				ATUS, ION
As the below name	d inventor, I hereby dec					
This declaration [The attached applicati	on, or				
is directed to:	United States applicat filed on February 20		tional application n	umber <u>13/77</u>	1,818	
The above-identifie	d application was made	or authorized to be	e made by me.			
I believe that I am the	he original inventor or a	ın original joint inv	entor of a claimed i	nvention in th	ne appl	ication.
(hereinafter referred Japan, is desirous	ushiki Kaisha Toshiba I to as "ASSIGNEE") I of acquiring the entire granted therefore in th	right, title and inte	rest in and to said i	invention and	l in and	d to any Letters
acknowledged, and said ASSIGNEE, th and in all foreign co other relevant Interninterest in and to ar	ORE, in consideration for other good and value full and exclusive rigountries (including the rotational Treaties and Amy and all Letters Pater any and all foreign chewals thereof.	nable consideration that to the said invertight to claim priority trangements from the which may be g	n, I, by these preser ntion in the United S ity under the terms of the aforesaid applica- granted therefor in the	nts do sell, as States and its of the Interna ation) and the the United St	sign ar territor tional (e entire	nd transfer unto rial possessions Convention and e right, title and
any and all foreign assignee of my entir (his) successors and	te and request the Pater countries to issue any re right, title and interest assigns, to the full end would have been held b	and all of said Le at in and to the sam I of the term for w	tters Patent, when goe, for the sole use which said Letters P	granted, to sa and behoof or atent may be	id ASS	SIGNEE as the
Further, I agree t respecting said invo- continuation, substitu- all of said Letters P possible to aid said	that I will communicate ention, and testify in ute, renewal and reissue Patent to be issued to s ASSIGNEE, its (his) s ted States and its territor	e to said ASSIGNI any legal proceed e applications, exe said ASSIGNEE, in successors and assi	EE or its (his) reproding, sign all lawf cute all necessary a make all rightful or igns, to obtain and	esentatives ar ful papers, ex ssignment pa aths, and, gen enforce prop	xecute pers to nerally er prot	all divisional, cause any and
by fine or imprisonm	edge that any willful fal	se statement made /e (5) years, or bot	in this declaration i h.	s punishable	under 1	18 U.S.C. 1001
LEGAL NAME OF	INVENTOR					
Inventor: Takeshi	YOSHIYUKI		Date:	March	11,	2013
Signature:	keshi Moshiya	hi				

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

Title of Invention	SOURCE DRIVING METHOD, AN	E BEAM IRRADIATION APPARATUS, ION ND HEAVY PARTICLE BEAM
As the below as	IRRADIATION METHOD	
	d inventor, I hereby declare that:	
This declaration	The attached application, or	
is directed to:	United States application or PCT internatiled on February 20, 2013	tional application number 13/771,818
The above-identified	d application was made or authorized to be	e made by me.
I believe that I am th	he original inventor or an original joint inv	rentor of a claimed invention in the application.
WHEREAS, Kabu	ushiki Kaisha Toshiba	•
Japan, is desirous (of acquiring the entire right, title and inte	nsiness at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, rest in and to said invention and in and to any Letters d its territorial possessions and in any and all foreign
said ASSIGNEE, the and in all foreign co other relevant Intern interest in and to an	for other good and valuable consideration e full and exclusive right to the said inven- ountries (including the right to claim priori- national Treaties and Arrangements from the any and all Letters Patent which may be go any and all foreign countries and in an	VE DOLLARS (\$5.00), the receipt whereof is hereby in, I, by these presents do sell, assign and transfer unto attion in the United States and its territorial possessions try under the terms of the International Convention and the aforesaid application) and the entire right, title and granted therefor in the United States and its territorial and to any and all divisions, reissues, continuations,
assignee of my entire (his) successors and	countries to issue any and all of said Let be right, title and interest in and to the same	in the United States and its territorial possessions and iters Patent, when granted, to said ASSIGNEE as the ite, for the sole use and behoof of said ASSIGNEE, its which said Letters Patent may be granted, as fully and gnment and sale not been made.
Further, I agree the respecting said invection, substituted all of said Letters Prossible to aid said invention in the United	hat I will communicate to said ASSIGNE ention, and testify in any legal proceed ute, renewal and reissue applications, execute to be issued to said ASSIGNEE, racksignee, its (his) successors and assied States and its territorial possessions and	EE or its (his) representatives any facts known to me ling, sign all lawful papers, execute all divisional, cute all necessary assignment papers to cause any and make all rightful oaths, and, generally do everything gns, to obtain and enforce proper protection for said in any and all foreign countries.
I hereby acknowle by fine or imprisonm	edge that any willful false statement made tent of not more than five (5) years, or both	in this declaration is punishable under 18 U.S.C. 1001
LEGAL NAME OF I	INVENTOR	
Inventor: Tsutomu	KURUSU	Date: Mar. 11, 2013
	ctoma Kurusy	

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> PATENT REEL: 030028 FRAME: 0587

RECORDED: 03/18/2013