504332493 04/21/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4379179

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
XING CHEN	03/25/2014
ILYA POKIDOV	03/25/2014
FENG TIAN	03/27/2014
KEN TRAN	03/25/2014
DAVID LAM	03/25/2014
KEVIN W. WENZEL	03/25/2014

RECEIVING PARTY DATA

Name:	MKS INSTRUMENTS, INC.	
Street Address:	2 TECH DRIVE	
Internal Address:	SUITE 201	
City:	ANDOVER	
State/Country:	MASSACHUSETTS	
Postal Code:	01810	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15484072

CORRESPONDENCE DATA

Fax Number: (617)526-9899

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: 617-526-9600

Email:dgilbride@proskauer.comCorrespondent Name:PROSKAUER ROSE LLP

Address Line 1: ONE INTERNATIONAL PLACE

Address Line 4: BOSTON, MASSACHUSETTS 02110

ATTORNEY DOCKET NUMBER:	ASX-173D1
NAME OF SUBMITTER:	JASON P. COLANGELO
SIGNATURE:	/Jason P. Colangelo/
DATE SIGNED:	04/21/2017

PATENT REEL: 042092 FRAME: 0271

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Total Attachments: 12	
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS:

Chen et al.

CONFIRMATION NO.:

9954

APPLICATION NO.:

14/212.398

FILING DATE:

March 14, 2014

TITLE:

TOROIDAL PLASMA ABATEMENT APPARATUS AND METHOD

DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT

I. DECLARATION

As the below named inventor, I hereby make the following declarations with respect the above-identified patent application attached hereto:

The above-identified application was made or authorized to be made by me;

I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the Patent Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

II. ASSIGNMENT

WHEREAS, I, Xing Chen, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, MKS Instruments, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 2 Tech Drive, Suite 201, Andover, MA 01810, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of

Attorney Docket No.: ASX-173

Page 2 of 2

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III SIGNATURE BLOCK

111.	SIGNATURE BLOCK	
IN TESTIMONY WHEREOF, I	nave hereunto set my hand-ar	nd affixed my seal on the date set
forth below.		
	Inventor:	Xing Chen
NI COTTA IN TOTA A TOTA CINI		Aing Chen
<u>NOTARIZATION</u>		
State/Commonwealth of Mcsoco	weette	
County of Meddle 2)	88	
On this 35 day of March personally appeared Xing Chen, proved to	, 2014 before me, the ume through satisfactory evid be the person whose name is	undersigned notary public, ence of identification, which were signed on the preceding or
attached document in my presence.	, conting-	
	Paul	on Expires: 7/15/16
	Notary Public	
	My Commissi	on Expires: ///5//6
WITNESS		·
	innel®	A PAULA J. EDWARDS
Witness Signature:	ED W	ጎል e Notary Public
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS:

Chen et al.

CONFIRMATION NO.:

9954

APPLICATION NO.:

14/212,398

FILING DATE:

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I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

II. ASSIGNMENT

WHEREAS, I, Ilya Pokidov, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, MKS Instruments, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 2 Tech Drive, Suite 201, Andover, MA 01810, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of

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	III.	SIGNATURE I	3LOCK		
IN TESTIMO	NY WHEREOF , I hav	ve hereunto set my	hand-and	d affixed my s	seal on the date set
forth below.		Invent	tor:	Myn Ilya Pokidov	mil
NOTARIZATION				·	
State/Commonwealth County of Mid	of Mossochuc desay)ss	etto			
On this <u>25</u> day personally appeared Ily were <u>MG 1960</u> attached document in n	No france,	me through satisfa to be the person w	nctory evi vhose nan	dence of iden ne is signed o	tification, which in the preceding or
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Witness Date:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				ission Expires 15, 2016

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS:

Chen et al.

CONFIRMATION NO.:

9954

APPLICATION NO.: 14/212,398

FILING DATE:

March 14, 2014

TITLE:

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I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

II. ASSIGNMENT

WHEREAS, I, Feng Tian, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, MKS Instruments, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 2 Tech Drive, Suite 201, Andover, MA 01810, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of

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	III.	SIGNATURE BLOC	CK
	<i>EREOF</i> , I hav	e hereunto set my hand	l-and affixed my seal on the date set
forth below.			
		Inventor:	Fong Tion
<u>NOTARIZATION</u>			Feng Tian
State/Commonwealth of Middles	isough	weetts	
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attached document in my prese	ence.		
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		Notary Pub	olic disconnection of the later
WITNESS		My Comm	ission Expires: $\frac{7707}{6}$
Witness Signature:		PAULA J.	EDWARDS
Witness Name:		(C) / COMMONWEALTH C	F MAT SACHUSETTS 100 15510 M
Witness Date:		July 1:	2016
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS:

Chen et al.

CONFIRMATION NO.:

9954

APPLICATION NO.: 14/212,398

FILING DATE:

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II. ASSIGNMENT

WHEREAS, I, Ken Tran, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

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III. SIGNATURE BLOCK

<i>IN TESTIMONY WHEREOF</i> , I have here forth below.	unto set my hand-a	and affixed my seal on the date set
	Inventor:	Wen Tran
	m, onto.	Ken Tran
NOTARIZATION		
State/Commonwealth of Massayahuat County of Middlesex) ss		and BA Street
On this 25 day of Mach, 20 personally appeared Ken Tran, proved to me through the Driver's Arease, to be the perattached document in my presence.	h satisfactory evid rson whose name i	ence of identification, which were
WITNESS	141y Commiss	P JLAJ. EDWARDS
Witness Signature:		Notary Public
Witness Name:		My Commission Expires
Witness Date:		July 15, 2016

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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WHEREAS, I, David Lam, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

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	Ш.	SIGNATURE BLOCK	
	<i>Y WHEREOF</i> , I hav	e hereunto set my hand-ar	nd affixed my seal on the date set
forth below.		Inventor:	David Lam
NOTARIZATION			
State/Commonwealth o County of Middle	f Misorefue	cetto	
personally appeared Dav	id Lam, proved to m		indersigned notary public, dence of identification, which were signed on the preceding or
		Notary Public	on Expires: 7/15/16
WITNESS		My Commissi	on Expires: 7/15/16
Witness Signature:		Summing Distriction	- FAULA J. EDWARD
Witness Name:	, , , , , , , , , , , , , , , , , , ,	S. 10810W	Notary Public COMMONWEATH OF MASSACHU MY COMMONWEATH OF MASSACHU
Witness Date:	<u> </u>		My Commission Expired July 15, 2016

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WHEREAS, I, Kevin W. Wenzel, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, MKS Instruments, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 2 Tech Drive, Suite 201, Andover, MA 01810, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of

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industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

III. SIGNATURE BLOCK
IN TESTIMONY WHEREOF, I have hereunto set my hand-and affixed my seal on the date set forth below. Inventor: Kevin W. Wenzel
NOTARIZATION
State/Commonwealth of Massachusetts County of Middlesex) ss
On this 35 day of
Notary Public
WITNESS Witness Signature: Witness Name: Witness Date: My Commission Expires: July 15, 2016
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