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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2917311

SUBMISSION TYPE:		NEW ASSIGN	NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT			
CONVEYING PARTY D	ΔΤΑ					
		Name			Execution Date	
MKS INSTRUMENTS,	INC.				03/14/2011	
RECEIVING PARTY D	ΑΤΑ					
Name:	ION SYSTEMS, INC.					
Street Address:	1750 NO	1750 NORTH LOOP ROAD				
Internal Address:	SUITE 10	SUITE 100				
City:	ALAMED	ALAMEDA				
State/Country:	CALIFOR	CALIFORNIA				
Postal Code:	94602					
Property Type Application Number:		Number 13635215				
Application Number:	1;	635215				
CORRESPONDENCE	DATA					
Fax Number:	3)	60)599-8537				
Fax Number: <i>Correspondence will I</i>	8) be sent to t	he e-mail address				
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CONFIRMATORY PATENT ASSIGNMENT

WHEREAS, MKS Instruments, Inc., a Massachusetts corporation having an address of 2 Tech Drive, Suite 201, Andover, Massachusetts 01810, hereinafter generally referred to as "ASSIGNOR" is the owner of certain new and useful inventions for which patents were granted and patent applications are pending as set forth on Schedule A attached hereto, the inventions, patent applications and patents hereafter collectively referred to as "the patent properties of Schedule A."

WHEREAS, **Ion Systems, Inc.**, a California corporation having an address of 1750 North Loop Road, Suite 100, Alameda, California 94602, hereinafter generally referred to as "**ASSIGNEE**" is desirous of acquiring the entire right, title and interest in and to the patent properties of Schedule A throughout the United States and the world.

FOR GOOD and VALUABLE CONSIDERATION, the full receipt and sufficiency of which are hereby acknowledged, ASSIGNOR, intending to be legally bound effective May 17, 2010, do hereby:

AUTHORIZE said ASSIGNEE, or its representatives to insert the application numbers of the applications that are currently unknown when these are known;

SELL, ASSIGN, TRANSFER and CONVEY to ASSIGNEE the whole and entire right, title and interest for the United States and its possessions and territories and all foreign countries in and to the patent properties of Schedule A, and, in and to any and all patent applications related thereto including, but not limited to, all provisionals, non-provisionals, divisionals, continuations, continuations-in-part, substitutes, reexaminations, reissues and all other applications for patent which have been or shall be filed in the United States and all foreign countries on the patent properties of Schedule A; all original, reissued and reexamined patents and extensions thereof which have been or shall be issued in the United States and all foreign countries on the patent properties of Schedule A to the full end of the term or terms for which the patent(s) may be granted, as fully and entirely as the same would have been held by the undersigned ASSIGNOR had this Assignment not been made; and specifically including all rights of priority created by the patent properties of Schedule A under any treaty, convention or law relating thereto;

AUTHORIZE and REQUEST the issuing authority to issue any and all United States and foreign patents granted on the patent properties of Schedule A to ASSIGNEE;

WARRANT and REPRESENT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by ASSIGNOR, and that the full right to convey the same as herein expressed is possessed by ASSIGNOR;

AGREE and UNDERTAKE, when requested and at the expense of ASSIGNEE, to carry out in good faith the intent and purpose of this Assignment, ASSIGNOR will execute all non-provisionals, divisionals, continuations, continuations-in-part, substitutes, reexaminations, reissues, and all other patent applications on the patent properties of Schedule A; execute all lawful oaths, declarations, assignments, powers of attorney and other papers; communicate to

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ASSIGNEE all facts known to ASSIGNOR relating to the patent properties of Schedule A and the history thereof; and generally do everything possible which ASSIGNEE shall consider desirable for vesting title to the patent properties of Schedule A in ASSIGNEE, and for securing, maintaining and enforcing proper patent protection for the patent properties of Schedule A; all without further compensation to ASSIGNOR;

AGREES to hold in trust, keep confidential, not make use of, and not disclose or reveal to any third party said inventions and patent applications in Schedule A that are not yet published, without ASSIGNEE'S prior written consent.

TO BE BINDING on the heirs, assigns, representatives and successors of ASSIGNOR and extending to the successors, assigns, and nominees of ASSIGNEE.

March 14, 2011 Date

Kathleen F. Burke

Typed or Printed Name

Secretary, MKS Instruments, Inc.

Title

STATE OF Massachusette SS. COUNTY OF ESSEX

Before me, a notary public in and for the State and County aforesaid, on this 4^{+h} dav of MARCH 2011, personally appeared Kathlero F. BURKE, who acknowledged to me that he/she is the Secretary of MKS Instruments, Inc., who executed this Assignment on behalf of the corporation and acknowledged to me that he/she executed the same for the purposes therein stated.

My Commission Expires **GEORGIA D. DRISTILIARIS** Notary Public COMMONWEALTH OF MASSACHUSETT My Commission Explices December 12, 2014

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PATENT REEL: 033196 FRAME: 0464

SCHEDULE A

U.S. and PCT Patent Applications

Application No.	Title		
PCT/US2010/001327	Optimized Electrostatic Pinning and/or Charging		
12/799,369	Clean Corona Gas Ionization For Static Charge Neutralization		
PCT/US2010/001215	Clean Corona Gas Ionization For Static Charge Neutralization		
61/279,610	0 Self-Balancing Ionized Gas Streams		
61/279,784	Covering Wide Areas With Ionized Gas Streams		

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RECORDED: 06/27/2014