

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5356610

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
Deutsche Bank AG New York Branch	02/01/2019

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: 11

Property Type	Number
Application Number:	15952168
Application Number:	15952482
Application Number:	15955266
Application Number:	15973190
Application Number:	15974947
Application Number:	15975473
Application Number:	62677386
Application Number:	16005761
Application Number:	62684820
Application Number:	62690202
Application Number:	16020415

CORRESPONDENCE DATA

Fax Number:

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PATENT

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ATTORNEY DOCKET NUMBER:	1042610 PAT F
NAME OF SUBMITTER:	ALANA GRAMER
SIGNATURE:	/Alana Gramer/
DATE SIGNED:	02/01/2019
Total Attachments: 5 source=F Barclays_MKS - DB Patent Release (7.24.18) (Fully Executed)(140083489_1)#page1.tif source=F Barclays_MKS - DB Patent Release (7.24.18) (Fully Executed)(140083489_1)#page2.tif source=F Barclays_MKS - DB Patent Release (7.24.18) (Fully Executed)(140083489_1)#page3.tif source=F Barclays_MKS - DB Patent Release (7.24.18) (Fully Executed)(140083489_1)#page4.tif source=F Barclays_MKS - DB Patent Release (7.24.18) (Fully Executed)(140083489_1)#page5.tif	

RELEASE OF SECURITY INTEREST IN PATENTS

This **RELEASE OF SECURITY INTEREST IN INTELLECTUAL PROPERTY** (this "Release") is dated as of February 1, 2019 and delivered by Deutsche Bank AG New York Branch, in its capacity as collateral agent for the Secured Parties under the Security Agreement referred to below (in such capacity, the "Agent"), in favor of MKS Instruments, Inc. and Newport Corporation (the "Grantors" and each a "Grantor"). All capitalized terms used but not otherwise defined herein have the meanings given to them in the Patent Security Agreement (as defined below) or the Security Agreement (as defined below), as applicable.

WHEREAS, pursuant to that certain Security Agreement, dated as of April 29, 2016 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement") among the Grantors, the Agent and certain other parties thereto, in order to secure payments of certain Secured Obligations (as defined in the Security Agreement), the Grantors assigned, pledged and granted to the Agent, for the ratable benefit of the Secured Creditors, a continuing security interest in all of each Grantor's right, title and interest in, to all of its Patents including, without limitation, the patents and patent applications listed on Schedule I hereto, in each case to the extent the same constitute Collateral (as defined in the Security Agreement) (the "Intellectual Property").

WHEREAS, the Patent Security Agreement, dated as of July 24, 2018, evidencing the security interest granted by the Grantors in favor of the Agent was recorded with the United States Patent and Trademark Office on July 27, 2018 at Reel/Frame 046641/0772 (the "Patent Security Agreement").

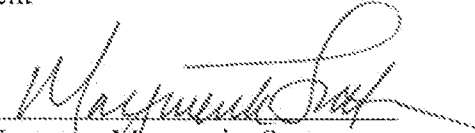
WHEREAS, the Agent hereby acknowledges the full payment and performance of the Secured Obligations, and as a result desires to terminate and release its security interest in the Intellectual Property.

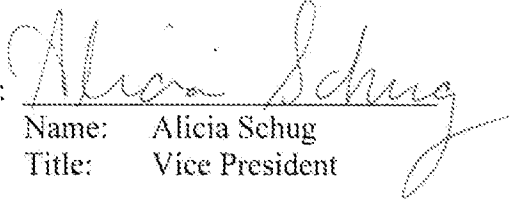
NOW, THEREFORE, for and in consideration of the foregoing, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Agent, on behalf of itself and the Secured Creditors, hereby terminates, releases and forever discharges any and all security interests it has in the Intellectual Property and any other Patents (as defined in the Patent Security Agreement), terminates the Patent Security Agreement, and retransfers and reassigns to the Grantors without representation or warranty of any kind, express or implied, free and clear of any claims by the Agent, all right, title or interest of the Agent in, to or under the Intellectual Property and any other Patents of the Grantors.

This Release shall be governed by and construed in accordance with the laws of the State of New York.

IN WITNESS WHEREOF, the Agent has caused this Release to be executed by its duly authorized signatory effective as of the date first above written.

DEUTSCHE BANK AG NEW YORK BRANCH,
as Agent

By: 
Name: Marguerite Sutton
Title: Vice President

By: 
Name: Alicia Schug
Title: Vice President

SCHEDULE I

UNITED STATES PATENT REGISTRATIONS AND APPLICATIONS

[See Attached]

Patents:

OWNER	PATENT NUMBER	TITLE	ISSUE DATE

Patent Applications:

Ref.	Case	Owner	Title	Status	Appl. No.	Filed	Patent No.	Issued
ASX-173	D2	MKS Instruments, Inc.	Toroidal Plasma Abatement Apparatus	Pending	15/952168	4/12/2018		
5089.3016-001		MKS Instruments, Inc.	END POINT DETECTION FOR LYOPHILIZATION	Pending	15/952482	4/13/2018		
5089.3017-000		MKS Instruments, Inc.	THERMAL CONDUCTIVITY GAUGE	Pending	15/955266	4/17/2018		
5089.3018-000		MKS Instruments, Inc.	Methods and Apparatus for Multiple Channel Mass Flow and Ratio Control Systems	Pending	15/973190	5/7/2018		
3197-P00124		MKS Instruments, Inc.	PULSED, BIDIRECTIONAL RADIO FREQUENCY SOURCE/LOAD	Pending	15/974947	5/9/2018		
5089.3020-000		MKS Instruments, Inc.	METHOD AND APPARATUS FOR PARTIAL PRESSURE DETECTION	Pending	15/975473	5/9/2018		
5089.3021-000		MKS Instruments, Inc.	GAS ANALYSIS WITH AN INVERTED MAGNETRON SOURCE	Pending	62/677386	5/29/2018		
3197-000117		MKS Instruments, Inc.	ADAPTIVE PERIODIC WAVEFORM CONTROLLER	Pending	16/005761	6/12/2018		
0201-800WIL-18P		MKS Instruments, Inc.	Radical Output Monitor for a Remote Plasma Source and Method of Use	Pending	62/684820	6/14/2018		
3197-P00129		MKS Instruments, Inc.	ADAPTIVE CONTROL FOR A POWER GENERATOR	Pending	62/690202	6/26/2018		

086400-0107	C1	MKS Instruments, Inc.	Method and Apparatus for Self-Verification of Pressured Based Mass Flow Controllers	Pending	16/020415	6/27/2018		
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