

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT2616592

SUBMISSION TYPE:	NEW ASSIGNMENT						
NATURE OF CONVEYANCE:	ASSIGNMENT						
CONVEYING PARTY DATA							
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>YOUFAN GU</td> <td>11/07/2013</td> </tr> <tr> <td>MATTHEW C. GROUT</td> <td>11/07/2013</td> </tr> </tbody> </table>		Name	Execution Date	YOUFAN GU	11/07/2013	MATTHEW C. GROUT	11/07/2013
Name	Execution Date						
YOUFAN GU	11/07/2013						
MATTHEW C. GROUT	11/07/2013						
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							
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14075163</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14075163		
Property Type	Number						
Application Number:	14075163						
CORRESPONDENCE DATA							
Fax Number:	(970)492-1101						
Phone:	(970) 492-1100						
Email:	lynnetted@patentlegal.com						
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>							
Correspondent Name:	COCHRAN FREUND & YOUNG LLC						
Address Line 1:	2026 CARIBOU DRIVE						
Address Line 2:	SUITE 201						
Address Line 4:	FORT COLLINS, COLORADO 80525						
ATTORNEY DOCKET NUMBER:	MKSI.87US01						
NAME OF SUBMITTER:	LYNETTE DEBREY-COTA						
Signature:	/Lynette DeBrey-Cota/						

Date:

11/15/2013

Total Attachments: 2

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When recorded please return to:  
Cochran Freund & Young LLC  
2026 Caribou Drive, Suite 201  
Fort Collins, CO 80525

PATENT APPLICATION  
DOCKET NO.: MKSL87US01

ASSIGNMENT OF PATENT APPLICATION (cont.)

Inventor No. 2

IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):

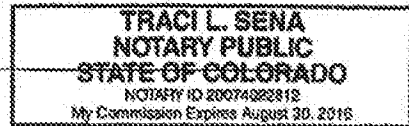
 \_\_\_\_\_ Date Assignment Signed: 11-7-13

Inventor's Signature (Seal)  
Inventor's Typed Name: Matthew C. Grout

State of Colorado )  
County of Boulder ) ss.:

Before me this 7 day of November, 2013, personally appeared Matthew C. Grout who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_



My commission expires: August 30 2016