

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Christopher M. Owen	04/26/2010
Yogendra K. Chawla	04/26/2010
RECEIVING PARTY DATA	
Name:	MKS Instruments, Inc.
Street Address:	2 Tech Drive, Suite 201
City:	Andover
State/Country:	MASSACHUSETTS
Postal Code:	01810
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	12763640
CORRESPONDENCE DATA	
Fax Number:	(248)641-0270
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	248-641-1600
Email:	agrubb@hdp.com
Correspondent Name:	HARNESS, DICKEY & PIERCE, P.L.C.
Address Line 1:	P.O. BOX 828
Address Line 4:	BLOOMFIELD HILLS, MICHIGAN 48303
ATTORNEY DOCKET NUMBER:	3197-000098/US
NAME OF SUBMITTER:	Amy Grubb
Total Attachments: 5 source=Signed_Assignment#page1.tif source=Signed_Assignment#page2.tif source=Signed_Assignment#page3.tif	

CH \$40.00 12763640

501219888

PATENT
REEL: 024615 FRAME: 0091

source=Signed_Assignment#page4.tif

source=Signed_Assignment#page5.tif

ASSIGNMENT BY INVENTORS

THIS ASSIGNMENT, made by Christopher M. Owen and Yogendra K. Chawla (hereinafter referred to as Assignors), residing at 15 Wild Berry Lane, Pittsford, New York 14534; and 2 Callaway Ridge, Fairport, New York 14450, respectively;

WHEREAS, Assignors have invented certain new and useful improvements in Variable Class Characteristic Amplifier, set forth in a Patent application for Letters Patent of the United States, already filed on April 20, 2010 as U.S. Application No. 12/763,640; and

WHEREAS, MKS Instruments, Inc., a Corporation organized under and pursuant to the laws of Delaware having its principal place of business at 2 Tech Drive, Suite 201, Andover, Massachusetts 01810 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, including the right to recover for past infringements, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same

would have been held and enjoyed by Assignors, had this sale and assignment not been made.

AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

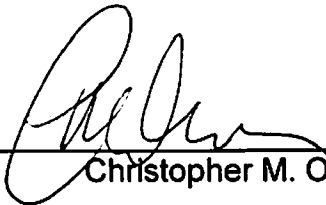
AND Assignors hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

HARNESS, DICKEY & PIERCE, P.L.C.

All practitioners at Customer Number 27572

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.


Christopher M. Owen

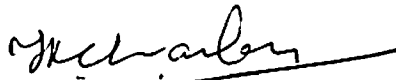
Date: 4/26/2010

United States of America)
State of New York) ss.:
County of Monroe)

On this 26 day of April, 2010, before me
personally came Christopher M. Owen, to me known to be the individual
described in and who executed the foregoing instrument, and acknowledged execution
of the same.


Notary Public

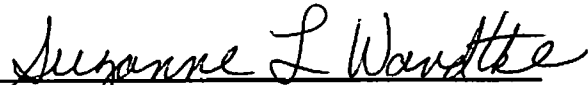
SUZANNE L. WANDTKE
Notary Public, State of New York
Qualified in Monroe County
My Commission Expires Feb 28, 2011


Yogendra K. Chawla

Date: 4/26/2010

United States of America)
State of New York) ss.:
County of Monroe)

On this 26 day of April, 2010, before me
personally came Yogendra K. Chawla, to me known to be the individual
described in and who executed the foregoing instrument, and acknowledged execution
of the same.


Notary Public

SUZANNE L. WANDTKE
Notary Public, State of New York
Qualified in Monroe County
My Commission Expires Feb 28, 2011

15455347.1