PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Charles Mark Phillips	05/11/2010
Barbara Marshik-Geurts	05/11/2010
Leonard I. Kamlet	05/11/2010
Martin L. Spartz	04/30/2010
Vidi Saptari	05/12/2010

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:	12720542

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	ASX-155
NAME OF SUBMITTER:	Zachary P. Piccolomini

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Total Attachments: 6

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Attorney Docket No.: ASX-155

ASSIGNMENT

WHEREAS, We, <u>Charles Mark Phillips</u>, <u>Barbara Marshik-Geurts</u>, <u>Leonard I. Kamlet</u>, <u>Martin L. Spartz</u> and <u>Vidi Saptari</u> have invented one or more inventions described in an application (or provisional application) for Letters Patent of the United States entitled:

METHOD AND APPARATUS FOR SILOXANE MEASUREMENTS IN A BIOGASS

and identified by

and

\boxtimes	Attorney Docket No. ASX-155;	
\boxtimes	Application No. 12/720,542 filed in the United States Patent Office on March 9, 2010;	

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 us;

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, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our 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 our 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 we 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 us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of 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. We hereby acknowledge that this assignment, being of our 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 our entire right, title and interest therein;

AND, we hereby further agree for ourselves and our 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;

Joint Assignment
Attorney Docket No.: ASX-155
U.S. Application No.: 12/720,542
Page 2 of 6

AND, we hereby further proceeding in which said invent

AND, we hereby author

AND, we 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;

AND, we hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on the date of our execution of this assignment;

AND, we 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.

IN TESTIMONY WHEREOF, we have hereunto set our hands-and affixed our seals on the date(s) set forth below.

State/Commonwealth of Wassachusetts County of ESSEX	Inventor: Charles Mark Phillips Charles Mark Phillips
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which were <u>NT DRIVERUS UCCOSE</u> preceding or attached document in my presence	
WITNESS	
Witness Signature:	
Witness Name:	
Witness Date:	——————————————————————————————————————
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Attorney Docket No.: ASX-155 U.S. Application No.: 12/720,542 Page 3 of 6 Inventor: Barbara Marshik-Geurts State/Commonwealth of Massachus County of ESSEX On this Way of Way ____, 2010, before me, the undersigned notary public, personally appeared Barbara Marshik-Geurts, proved to me through satisfactory evidence of identification, which were Massachusetts Driver's heinse, to be the person whose name is signed on the preceding or attached document in my presence. GEORGIA D. DRISTILIARIS Notary Public Motary Public
COMMONWEALTH OF MASSACHUSETTS My Commission Exp My Commission Expires December 12, 2014 **WITNESS** Witness Signature: Witness Name: Witness Date:

Joint Assignment

U.S. Application No.: 12/720,542 Page 4 of 6 Inventor: Leonard I. Kamlet State/Commonwealth of Mass a chusetts County of ESSEX On this \(\frac{1}{1} \) day of \(\frac{MA}{2} \) On this \(\frac{1}{2} \) day of \(\frac{1}{2} \), 2010, before me, the undersigned notary public, personally appeared \(\text{Leonard I. Kamlet, proved to me through satisfactory evidence of identification,} \) which were Massadusetts driver's hearse , to be the person whose name is signed on the preceding or attached document in my presence/ GEORGIA D. DRISTILIARIS Notary Public Notary Public COMMONWEALTH OF MASSACHUSETTS My Commission Expid My Commission Expires. December 12, **WITNESS** Witness Signature: Witness Name: Witness Date:

Joint Assignment

Attorney Docket No.: ASX-155

Joint Assignment Attorney Docket No.: ASX-155 U.S. Application No.: 12/720,542 Page 5 of 6 Inventor: State/Commonwealth of County of Jolland On this 30 day of April , 2010, before me, the undersigned notary public, personally appeared Martin L. Spartz, proved to me through satisfactory evidence of identification, which were Drivers License, to be the person whose name is signed on the preceding or attached document in my presence. My Commission Expires: _ **WITNESS NOTARY PUBLIC** Witness Signature: My Commission Expires May 31, 2012 Witness Name:

Witness Date:

PATENT

REEL: 024413 FRAME: 0227

Attorney Docket No.: ASX-155
U.S. Application No.: 12/720,542
Page 6 of 6

Inventor: Vidi Saptari

State/Commonwealth of MASJA(Norths)
County of Michelex) ss

On this 2 day of May 2010, 2010, before me, the undersigned notary public, personally appeared Vidi Saptari, proved to me through satisfactory evidence of identification, which were M. Driver (1000) c, to be the person whose name is signed on the preceding or attached document in my presence.

WITNESS

Witness Signature:

Witness Name:

8129/49548-331 Current/18168927v1

Joint Assignment

Witness Date:

PATENT
RECORDED: 05/20/2010 REEL: 024413 FRAME: 0228