

FORM PTO-1596 (Modified)  
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RECORDATION FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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Tab settings

To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Junhua Ding  
Kaveh H. Zarkar

Additional names(s) of conveying party(ies)  Yes  No

2. Name and address of receiving party(ies):

Name: MKS Instruments, Inc.

Internal Address:

Street Address: 90 Industrial Way

City: Wilmington State: MA ZIP: 01887

Additional name(s) & address(es) attached?  Yes  No

3. Nature of conveyance:

- Assignment  Merger
- Security Agreement  Change of Name
- Other

Execution Date: September 5, 2007

4. Application number(s) or patent numbers(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

Filing Date

B. Patent No.(s)

11/769,435

June 27, 2007

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Toby H. Kusmer, P.C.

Internal Address: McDermott Will & Emery LLP

Street Address: 28 State Street

City: Boston State: MA ZIP: 02109

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41):.....\$ 40.00

- Enclosed - Any excess or insufficiency should be credited or debited to deposit account
- Authorized to be charged to deposit account

8. Deposit account number:

501133

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Toby H. Kusmer, P.C.

9-14-07

Name of Person Signing

Signature

3

Date

Total number of pages including cover sheet, attachments, and document:

PATENT

**ASSIGNMENT OF PATENT RIGHTS**

We, **Junhua Ding** residing at **41 Orchard Street, Tewksbury, MA 01876** and **Kaveh H. Zarkar** residing at **96 Dascomb Road, Andover, MA 01810**, having invented improvements in **MASS FLOW VERIFIERS CAPABLE OF PROVIDING DIFFERENT VOLUMES, AND RELATED METHODS**, and having this day executed a patent application for United States patent describing the same based thereon (and We hereby authorize our attorney(s), authorized to prosecute said application, to here insert the filing date and serial number of said application, when known, **Serial No. 11/769,435, Filed June 27, 2007**), for good and valuable consideration, receipt of which is hereby acknowledged from **MKS Instruments, Inc., a Massachusetts corporation** having its principal place of business at **90 Industrial Way, Wilmington, MA 01887-4610** (and hereinafter called the Assignee, which term shall include its successors and assigns), do hereby sell, assign and transfer unto the Assignee, our entire right, title, and interest, in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto, in and to and under said application (which term shall include hereinafter where the context so admits all divisional, continuing, reissue and other patent applications based thereon) and the inventions (which term shall include each and every such invention, or part thereof) therein described, and any and all patents and like rights of exclusion (including extensions thereof) of any country which may be granted on or for said inventions or on said application;

And for the same consideration we do also hereby sell, assign and transfer unto the Assignee all our rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty and all other treaties of like purpose in respect of said inventions and said application, and do hereby authorize the Assignee to apply in our name or in their own name (in a manner to be agreed upon by the Assignee) or their designee, for patents and like rights of exclusion on or for said inventions in all countries, claiming (if the Assignee so desires) the priority of the filing date of said application under the provisions of said Convention, Treaty or any such other Convention or Treaty;

And for the same consideration we do hereby agree for ourselves and for our respective heirs, executors and administrators, promptly upon request of the Assignee, to execute and deliver without further compensation any power of attorney, assignment, original, divisional, continuing, reissue or other application or applications for patent or patents or like rights of exclusion of any country, or other lawful documents and any further assurances that may be deemed necessary or desirable by the Assignee fully to secure to it said right, title, and interest as aforesaid in and to said inventions, application, and said several patents and like rights of exclusion, or any of them, all, however, at the expense of the Assignee;

And we do hereby authorize and request the Commissioner of Patents of the United States of America and the corresponding Official of each country foreign thereto to issue to the Assignee any and all patents and like rights of exclusion which may be granted in any country upon said application or on or for said inventions;

And we do hereby covenant for ourselves and for our respective legal representatives and agree with the Assignee that we have granted no right or license to make, use or sell said inventions to anyone except the Assignee, that prior to the execution of this deed my right, title and interest in and to said inventions has not been otherwise encumbered by us, and that we have not executed and will not execute any instrument in conflict herewith.

IN WITNESS WHEREOF, we hereunto set our hands and seal on the day and year hereinafter noted.

*[Handwritten Signature]*

**Junhua Ding**

State of Massachusetts )  
County of Essex ) ss.

Before me this 5<sup>th</sup> day of September, year of 2007, personally appeared **Junhua Ding**, who is to me personally known, and acknowledged the foregoing instrument to be his free act and deed.

*[Handwritten Signature]*  
Notary Public

Seal

*[Handwritten Signature]*

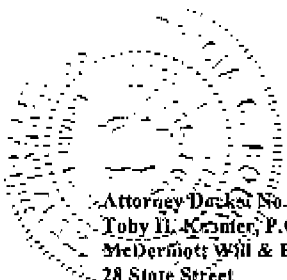
**Kaveh H. Zarkar**

State of Massachusetts )  
County of Essex ) ss.

Before me this 5<sup>th</sup> day of September, year of 2007, personally appeared **Kaveh H. Zarkar**, who is to me personally known, and acknowledged the foregoing instrument to be his free act and deed.

*[Handwritten Signature]*  
Notary Public

Seal



Attorney Docket No. 56231-705 (MSK-188)  
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