503864875 06/09/2016

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| BORIS DRUZ | 05/28/2016 |
| RUSTAM YEVTUKHOV | 05/31/2016 |
| ROBERT HIERONYMI | 06/06/2016 |
| ALAN V. HAYES | 05/27/2016 |
| MATHEW LEVOSO | 06/06/2016 |
| PETER PORSHNEV | 05/31/2016 |

RECEIVING PARTY DATA

| Name: | VEECO INSTRUMENTS INC. |
|-----------------|------------------------|
| Street Address: | TERMINAL DRIVE |
| City: | PLAINVIEW |
| State/Country: | NEW YORK |
| Postal Code: | 11803 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15170570 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | 579004USP |
|-------------------------|-----------------|
| NAME OF SUBMITTER: | JENNY NIKAIDO |
| SIGNATURE: | /Jenny Nikaido/ |
| DATE SIGNED: | 06/09/2016 |

PATENT 503864875 REEL: 038866 FRAME: 0589

Total Attachments: 3 source=ExecutedAssignment#page1.tif source=ExecutedAssignment#page2.tif source=ExecutedAssignment#page3.tif

PATENT REEL: 038866 FRAME: 0590

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| Serial Number | 15/170,570 |
|--|---|
| Filing Date | 01 June 2016 |
| Inventorship | Druz et al. |
| Applicant | |
| Attorney's Docket No | 579004USP |
| Title: ION SOURCES AND METHODS FOR GENERATING ION BEAMS WITH | |
| CONTROLLABLE ION CU | TRRENT DENSITY DISTRIBUTIONS OVER LARGE |
| TREATMENT AREAS | |

PATENT ASSIGNMENT

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PARTIES TO THE ASSIGNMENT

Assignor(s):

Boris Druz 2522 West 1st Street Brooklyn, New York 11223 United States

Rustam Yevtukhov 83-35 139th Street, Apt. 2B Briarwood, New York 11435 United States

Robert Hieronymi 82 Winchester Drive Monroe, New York 10950 United States

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Peter Porshnev 8 Sallys Path Northport, New York 11768 United States

Attorney Docket No.: 579004USP

PATENT

REEL: 038866 FRAME: 0591

Assignee:

Veeco Instruments Inc. Terminal Drive Plainview, New York 11803 United States

State of Incorporation: Delaware

WHEREAS, Assignor(s) (listed above) are inventor(s) of certain new and useful inventions and improvements claimed and described in an application for Letters Patent of the United States entitled "ION SOURCES AND METHODS FOR GENERATING AN ION BEAM WITH A CONTROLLABLE ION CURRENT DENSITY DISTRIBUTION OVER LARGE TREATMENT DIMENSIONS" and referenced above;

AND WHEREAS, Assignee, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business indicated above, is desirous of acquiring the entire right, title and interest in and to said inventions and improvements and in and to the applications, and in and to any letters patent to be obtained therefrom:

NOW THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor(s) have sold, assigned, and transferred, and by these presents do sell, assign, and transfer unto said Assignee, its successors or assigns, the entire right, title, and interest in and to said inventions and improvements, said applications, and any and all letters patent which may be granted for said inventions and improvements in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of Assignee and to claim priority rights deriving from said United States applications to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said inventions and improvements, applications and all letters patent on said inventions and improvements to be held and enjoyed by Assignee and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by Assignor(s) had this assignment, transfer and sale not been made. Assignor(s) hereby authorize

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Attorney Docket No.: 579004USP

HolzerIPLaw, PC

and request the Commissioner of Patents to issue all letters patent on said inventions to Assignee;

AND, for the consideration aforesaid, Assignor(s) do hereby agree that each Assignor and his/her executors and legal representatives will make, execute, and deliver any and all other instruments and documents in writing including any and all further applications papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to me relating to said inventions and improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to more effectually secure and vest in said Assignee, its successors or assignees the entire right, title and interest in and to the improvements, inventions, applications, letters patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be;

AND, Assignor hereby authorizes Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the application number and filing date of the above-referenced application for Letters Patent once known;

AND, furthermore, Assignor(s) covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the Assignor(s) and that full right to convey the same as herein expressed is possessed by the Assignor(s).

| 5/28/2011 | Moris Diaz |
|----------------|------------------|
| Date 5/3//2016 | Boys Druz |
| Date / | Rustam Yevtukhov |
| 6/6/2016 | Old Vering |
| Date | Robert Hieronymi |
| 5/37/2016 | Alan V. Hayer |
| Date | Alan V. Hayes |
| 6/6/2016 | |
| Date | Mathew Levoso |
| 5/31/2016 | |
| Date / | Peter Porshnev |

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Attorney Docket No.: 597004USP