505628386 08/19/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Jochen Knopf	07/01/2019
Mohammad Awad	08/16/2019

RECEIVING PARTY DATA

Name:	CARL ZEISS SMT GMBH	
Street Address:	RUDOLF-EBER-STRASSE 2	
City:	OBERKOCHEN	
State/Country:	GERMANY	
Postal Code:	73447	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16444323

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ATTORNEY DOCKET NUMBER:	20228-0110001	
NAME OF SUBMITTER:	ALISSA TIZZANO	
SIGNATURE:	/Alissa Tizzano/	
DATE SIGNED:	08/19/2019	

Total Attachments: 3

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> **PATENT** REEL: 050091 FRAME: 0063 505628386

Attorney Docket No.: 20228-0110001 / 19 541 US

ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, <u>JOCHEN KNOPF</u>, and <u>MOHAMMAD AWAD</u>, each individually assign to <u>CARL ZEISS SMT GMBH</u>, a corporation formed under the laws of <u>Germany</u> and having a principal place of business at <u>Rudolf-Eber-Strasse 2</u>, 73447 Oberkochen, <u>GERMANY</u>, and its successors, transferces, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the invention(s) (the "Subject Matter") described in a patent application that names us as inventors, is titled "<u>METHOD AND DEVICE FOR MODIFYING IMAGING PROPERTIES OF AN OPTICAL SYSTEM FOR MICROLITHOGRAPHY</u>," and was filed in the United States Patent and Trademark Office on <u>June 18</u>, 2019, as application <u>16/444,323</u> (the "Application").

This Assignment assigns, in addition to the Subject Matter of the Application, (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region and under every treaty or convention, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or, at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter; will execute and provide all oaths and

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declarations, statements, testimony, assignments, powers of attorney, applications, and documents; and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

)./ <i>A</i>	Date: 04.07.2019
Tochen Knopf	
Witnessed by:	.st
Signature: 5/1/6	Date: <u>July 1, 201</u>
Print Name: <i>ED/7/4 JORG</i>	
Signature:	Date:
Oriot Name	

Attorney Docket No.: 20228-0110001 / 19 541 US

Mohammad Awad	Date:
Witnessed by:	
Signature: SAIL J	Date: <u>//194// /6 2</u> 9/9
Print Name: ED/7/4 SORG	
Signature:	Date:
Print Name:	

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