504594342 10/16/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4641054

SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY DA	ATA			
		Name		Execution Date
Thomas Schicketanz				04/16/2012
Toralf Gruner				04/16/2012
RECEIVING PARTY DA	ТА			
Name:	CARL ZEISS SMT GMBH			
Street Address:	RUDOLF-EBER-STRASSE 2			
City:	OBERKOCHEN			
State/Country:	GERMANY			
Postal Code:	73447			
Property Type				
Application Number:	15	783482		
Application Number: CORRESPONDENCE D		783482		
	ΑΤΑ	77)769-7945		
CORRESPONDENCE D Fax Number: <i>Correspondence will be</i>	ATA (87 e sent to th	77)769-7945 h e e-mail address first; if that is u		
CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i>	ATA (87 e sent to th provided; i	77)769-7945 he e-mail address first; if that is u if that is unsuccessful, it will be s		
CORRESPONDENCE D Fax Number: <i>Correspondence will be</i>	ATA (87 e sent to th provided; i (65	77)769-7945 h e e-mail address first; if that is u		
CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i> Phone:	ATA (87 e sent to th provided; i (65 ap	77)769-7945 h e e-mail address first; if that is u if that is unsuccessful, it will be s 50) 839-5001		
CORRESPONDENCE D Fax Number: <i>Correspondence will be using a fax number, if µ</i> Phone: Email:	ATA (87 e sent to th provided; i (65 ap Ch	77)769-7945 h e e-mail address first; if that is u if that is unsuccessful, it will be s 50) 839-5001 vsi@fr.com		
CORRESPONDENCE D Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name:	ATA (87 e sent to th provided; i (68 ap CH F18	77)769-7945 he e-mail address first; if that is u if that is unsuccessful, it will be s 50) 839-5001 bsi@fr.com HRIS C. BOWLEY		
CORRESPONDENCE D Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1:	ATA (87 e sent to th provided; i (65 ap CH FIS P.0	77)769-7945 he e-mail address first; if that is u if that is unsuccessful, it will be s 50) 839-5001 hsi@fr.com HRIS C. BOWLEY SH & RICHARDSON P.C.	ent via US	
CORRESPONDENCE D Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	ATA (87 e sent to th provided; i (6 ap (6 A A C H F I S N M	77)769-7945 he e-mail address first; if that is u if that is unsuccessful, it will be s 50) 839-5001 hsi@fr.com HRIS C. BOWLEY SH & RICHARDSON P.C. O.BOX 1022	ent via US	
CORRESPONDENCE D Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA (87 e sent to th provided; i (6 ap (6 A A C H F I S N M	77)769-7945 he e-mail address first; if that is u if that is unsuccessful, it will be s 50) 839-5001 osi@fr.com HRIS C. BOWLEY SH & RICHARDSON P.C. O.BOX 1022 INNEAPOLIS, MINNESOTA 55440	ent via US	
CORRESPONDENCE D Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA (87 e sent to th provided; i (6 ap (6 A A C H F I S N M	77)769-7945 he e-mail address first; if that is u if that is unsuccessful, it will be s 50) 839-5001 osi@fr.com HRIS C. BOWLEY SH & RICHARDSON P.C. O.BOX 1022 INNEAPOLIS, MINNESOTA 55440 24548-0066003	ent via US	
CORRESPONDENCE D Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET NU	ATA (87 e sent to th provided; i (6 ap CH FI P.4 MI	77)769-7945 he e-mail address first; if that is u if that is unsuccessful, it will be s 50) 839-5001 bsi@fr.com HRIS C. BOWLEY SH & RICHARDSON P.C. O.BOX 1022 INNEAPOLIS, MINNESOTA 55440 24548-0066003 CHERYL A. FORREST	ent via US	
CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET NU NAME OF SUBMITTER: BIGNATURE:	ATA (87 e sent to th provided; i (6 ap CH FI P.4 MI	77)769-7945 be e-mail address first; if that is u if that is unsuccessful, it will be s 50) 839-5001 bsi@fr.com HRIS C. BOWLEY SH & RICHARDSON P.C. O.BOX 1022 INNEAPOLIS, MINNESOTA 55440 24548-0066003 CHERYL A. FORREST /Cheryl A. Forrest/	ent via US	

source=Assignment#page2.tif

ASSIGNMENT

For valuable consideration, we, <u>THOMAS SCHICKETANZ</u> of <u>Jahnstrasse 13, 73431</u> <u>Aalen, Germany</u>, <u>TORALF GRUNER</u> of <u>Opalstrasse 22, 73433 Aalen-Hofen, Germany</u>, hereby assign to: <u>Carl Zeiss SMT GmbH</u>, a corporation of <u>Germany</u> having a place of business at:

> Rudolf-Eber-Strasse 2 73447 Oberkochen Germany; and

its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled CATADIOPTRIC PROJECTION OBJECTIVE COMPRISING DEFLECTION MIRRORS AND PROJECTION EXPOSURE METHOD, filed 3/27/2012, and assigned U.S. Serial Number 13/431,681, this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignce may reasonably request to effectuate fully this assignment.

Assignment Page 1 of 2

P17834WOUS

PATENT REEL: 043866 FRAME: 0914

Date: Appril 16th, 2012	THOMAS SCHICKETANZ
Witnessed by: Name: U9Uil 68hic Monika Sestic Name:	i in sink a so
Name: MOULY 108/11 Monika Sestic	Date: <u>April 16⁴, 2012</u>
Name:	Date:
Date: April 16th, 2012	Vorall Grune TORALF GRUNER
Witnessed by: Name: UUU 68hC	
Name: UUUU 168hC Monika Sestic	Date: <u>April 16⁴⁴ 2012</u>
Name:	Date:

22817075.doc

÷

Assignment Page 2 of 2

RECORDED: 10/16/2017