PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| Markus Mengel | 01/17/2007 |
| Ulrich Wegmann | 01/18/2007 |
| Albrecht Ehrmann | 01/24/2007 |
| Wolfgang Emer | 01/24/2007 |
| Reiner Clement | 01/17/2007 |
| Ludo Mathijssen | 01/28/2007 |

RECEIVING PARTY DATA

| Name: | Carl Zeiss SMT AG |
|-----------------|-----------------------|
| Street Address: | Rudolf-Eber-Strasse 2 |
| City: | Oberkochen |
| State/Country: | GERMANY |
| Postal Code: | 73447 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12057098 |

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 18233-0017002

PATENT

REEL: 023605 FRAME: 0108

| NAME OF SUBMITTER: | Susan L. Brandt |
|--|-----------------|
| Total Attachments: 2 source=assignzeiss#page1.tif source=assignzeiss#page2.tif | |

PATENT REEL: 023605 FRAME: 0109

Assignment

Whereas, We, Markus MENGEL; Ulrich WEGMANN; Albrecht EHRMANN; Wolfgang EMER; Reiner CLEMENT; and Ludo MATHUSSEN of Heidenheim, GERMANY; Koenigsbronn, GERMANY; Keenigsbronn, GERMANY; Allen, GERMANY; Amstetten, GERMANY; and Schwaebisch Gmuend, GERMANY, respectively, hereinafter called assignors, have invented certain improvements in

SYSTEM FOR MEASURING THE IMAGE QUALITY

OF AN OPTICAL IMAGING SYSTEM

and executed an application for Letters Patent of the United States of America therefor; and

Whereas, CARL ZEISS SMT AG, of Rudolf-Eber-Strasse 2, 73447 Oberkochen GERMANY (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

We, the above named assignors, hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. § 119, and we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

PATENT REEL: 023605 FRAME: 0110

Assignment

Whereas, We, Markus MENGEL; Ulrich WEGMANN; Albrecht EHRMANN; Wolfgang EMER; Reiner CLEMENT; and Ludo MATHIJSSEN of Heidenheim, GERMANY; Koenigsbronn, GERMANY; Koenigsbronn, GERMANY; Aalen, GERMANY; Amstetten, GERMANY; and Schwaebisch Gmuend, GERMANY, respectively, hereinafter called assignors, have invented certain improvements in

SYSTEM FOR MEASURING THE IMAGE QUALITY

OF AN OPTICAL IMAGING SYSTEM

and executed an application for Letters Patent of the United States of America therefor; and

Whereas, CARL ZEISS SMT AG, of Rudolf-Eber-Strasse 2, 73447 Oberkochen GERMANY (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

We, the above named assignors, hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. § 119, and we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

We hereby authorize and request our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3213 to insert here in parentheses _, filed November 30, 2006_) the application 11/628,061 (Application number number and filing date of said application when known. Date: s/Markus MENGEL Date: s/Ulrich WEGMANN Date: s/Albrecht EHRMANN Date: s/Wolfgang EMER Date: s/Reiner CLEMENT

(Legalization not required for recording but is prima facic evidence of execution under 35 U.S.C. §261)

PATENT REEL: 023605 FRAME: 0111

RECORDED: 12/04/2009