

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM464616

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|-----------------------------------|-----------------------|--------------------------------|-----------------------|
| SUBMISSION TYPE: | NEW ASSIGNMENT | | |
| NATURE OF CONVEYANCE: | SECURITY INTEREST | | |
| CONVEYING PARTY DATA | | | |
| Name | Formerly | Execution Date | Entity Type |
| Biolase, Inc. | | 03/06/2018 | Corporation: DELAWARE |
| RECEIVING PARTY DATA | | | |
| Name: | Western Alliance Bank | | |
| Street Address: | 55 Almaden Blvd. | | |
| Internal Address: | Ste. 100 | | |
| City: | San Jose | | |
| State/Country: | CALIFORNIA | | |
| Postal Code: | 95113 | | |
| Entity Type: | Corporation: ARIZONA | | |
| PROPERTY NUMBERS Total: 19 | | | |
| Property Type | Number | Word Mark | |
| Serial Number: | 77570444 | WATERLASE DENTISTRY | |
| Serial Number: | 87124429 | EPIC PRO | |
| Serial Number: | 87103870 | WATERLASE EXPRESS | |
| Serial Number: | 86273003 | PEDOLASE | |
| Serial Number: | 85140266 | I-LASE | |
| Serial Number: | 85140216 | IPLUS | |
| Serial Number: | 85515251 | EPIC | |
| Serial Number: | 77567208 | WCLI | |
| Serial Number: | 77567196 | WORLD CLINICAL LASER INSTITUTE | |
| Serial Number: | 77115446 | EZLASE | |
| Serial Number: | 77152392 | COMFORTPULSE | |
| Serial Number: | 77185280 | WATERLASE MD | |
| Serial Number: | 77115385 | EZTIPS | |
| Serial Number: | 77115378 | EZLASE | |
| Serial Number: | 77179623 | WATERLASE DENTISTRY | |
| Serial Number: | 77185283 | ZIPTIP | |
| Serial Number: | 76136329 | WATERLASE | |
| Serial Number: | 75225134 | BIOLASE | |

OP \$490.00 77570444

| Property Type | Number | Word Mark |
|----------------|----------|-----------|
| Serial Number: | 76355415 | BIOLASE |

CORRESPONDENCE DATA

Fax Number: 7033826486
Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.
Phone: 7033826485
Email: DHall@VLPLawGroup.com
Correspondent Name: Davis Hall
Address Line 1: 1029 N Stuart Street, Unit 200
Address Line 4: Arlington, VIRGINIA 22201

| | |
|---------------------------|-------------|
| NAME OF SUBMITTER: | Davis Hall |
| SIGNATURE: | /DavisHall/ |
| DATE SIGNED: | 03/07/2018 |

Total Attachments: 13

- source=WAB_Biolase_Intellectual Property Security Agreement (Parent)_Executed_3-6-18#page1.tif
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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT, dated as of March 6, 2018 (the "Agreement") between WESTERN ALLIANCE BANK, an Arizona corporation ("Lender") and BIOLASE, INC., a Delaware corporation ("**Grantor**"), is made with reference to the Business Financing Agreement, dated as of March 6, 2018, among Lender, Grantor, BL Acquisition Corp., and BL Acquisition II Inc. (as amended from time to time, the "Loan Agreement"). Terms defined in the Loan Agreement have the same meaning when used in this Agreement.

For good and valuable consideration, receipt of which is hereby acknowledged, Grantor hereby covenants and agrees as follows:

To secure the Obligations under the Loan Agreement, Grantor grants to Lender a security interest in all right, title, and interest of Grantor in any of the following, whether now existing or hereafter acquired or created in any and all of the following property (collectively, the "Intellectual Property Collateral"):

(a) copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held (collectively, the "Copyrights"), including the Copyrights described in Exhibit A;

(b) trademark and service mark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks (collectively, the "Trademarks"), including the Trademarks described in Exhibit B;

(c) patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same (collectively, the "Patents"), including the Patents described in Exhibit C;

(d) mask work or similar rights available for the protection of semiconductor chips or other products (collectively, the "Mask Works");

(e) trade secrets, and any and all intellectual property rights in computer software and computer software products;

(f) design rights;

(g) claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h) licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works, and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(i) amendments, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j) proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

The rights and remedies of Lender with respect to the security interests granted hereunder are in addition to those set forth in the Loan Agreement, and those which are now or hereafter available to Lender as a matter of law or equity. Each right, power and remedy of Lender provided for herein or in the Loan Agreement, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein, and the exercise by Lender of any one or more of such rights, powers or remedies does not preclude the simultaneous or later exercise by Lender of any other rights, powers or remedies.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

GRANTOR:

BIOLASE, INC.

LENDER:

WESTERN ALLIANCE BANK, an Arizona corporation

By: John R. Beaver

By: _____

Name: John R. Beaver

Name: _____

Title: SVP + CFO

Title: _____

Address for Notices:

Biolase, Inc.
4 Cromwell
Irvine, CA 92618

Fax: _____
Email: BOCONNELL@Biolase.com
Attn: Brendan O'Connell

Address for Notices:

Bridge Bank, a division of Western Alliance Bank
3200 Park Center Drive, Suite 350
Costa Mesa, CA 92626

Attn: Victor Le
Tel: (949) 438-4014
Fax: (949) _____

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

GRANTOR:

BIOLASE, INC.

By: _____

Name: _____

Title: _____

Address for Notices:

Biolase, Inc.
4 Cromwell
Irvine, CA 92618
Fax: _____
Email: _____
Attn: Brendan O'Connell

LENDER:

WESTERN ALLIANCE BANK, an Arizona corporation

By:  _____

Name: Victor Le _____

Title: VP _____

Address for Notices:

Bridge Bank, a division of Western Alliance Bank
3200 Park Center Drive, Suite 350
Costa Mesa, CA 92626
Attn: Victor Le
Tel: (949) 438-4014
Fax: (949) _____

EXHIBIT A
COPYRIGHTS

Please Check if No Copyrights Exist

| <u>Type of Work:</u> | <u>Title:</u> | <u>International Standard Serial Number (ISSN):</u> | <u>Registration Number:</u> | <u>Filing Date:</u> | <u>Pre - registered?</u> |
|----------------------|--------------------------------|---|-----------------------------|---------------------|--------------------------|
| Visual Material | ezlase | | VA0001651282 | 01/16/2009 | |
| Visual Material | Waterlase MD photograph 7/2005 | | VA0001651280 | 01/16/2009 | |
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EXHIBIT B
TRADEMARKS

Please Check if No Trademarks Exist

| <u>Mark / Title:</u> | <u>U.S. Serial Number:</u> | <u>U.S. Registration Number:</u> | <u>USPTO Reference Number:</u> | <u>Filing Date:</u> |
|--------------------------------|----------------------------|----------------------------------|--------------------------------|---------------------|
| WATERLASE DENTISTRY | 77570444 | 3822549 | | 09/15/2008 |
| EPIC PRO | 87124429 | 5292538 | | 08/02/2016 |
| WATERLASE EXPRESS | 87103870 | 5292447 | | 07/14/2016 |
| PEDOLASE | 86273003 | | | 05/06/2014 |
| I-LASE | 85140266 | 4099882 | | 09/28/2010 |
| IPLUS | 85140216 | 4081050 | | 09/28/2010 |
| EPIC | 85515251 | 4448330 | | 12/12/2012 |
| WCLI | 77567208 | 3768531 | | 09/10/2008 |
| WORLD CLINICAL LASER INSTITUTE | 77567196 | 3711090 | | 09/10/2008 |
| EZLASE | 77115446 | 3489443 | | 02/24/2007 |
| COMFORTPULSE | 77152392 | 3595452 | | 04/09/2007 |
| WATERLASE MD | 77185280 | 3587923 | | 05/18/2007 |
| EZTIPS | 77115385 | 3463347 | | 02/24/2007 |
| EZLASE | 77115378 | 3454749 | | 02/23/2007 |
| WATERLASE DENTISTRY | 77179623 | 3521567 | | 05/13/2007 |
| ZIPTIP | 77185283 | 3513413 | | 05/18/2007 |
| WATERLASE | 76136329 | 2660361 | | 09/26/2000 |
| BIOLASE | 75225134 | 2535143 | | 01/13/1997 |
| BIOLASE | 76355415 | 2699819 | | 01/05/2002 |

EXHIBIT C

PATENTS

Please Check if No Patents Exist

| <u>Title:</u> | <u>Patent Number:</u> | <u>Application Serial Number:</u> | <u>Issued or Published?</u> | <u>Issue Date:</u> |
|--|-----------------------|-----------------------------------|-----------------------------|--------------------|
| PROBES AND BIOFLUIDS FOR TREATING AND REMOVING DEPOSITS FROM TISSUE SURFACES | 8221117 | 12234593 | | 09/19/2008 |
| METHODS FOR TREATING EYE CONDITIONS WITH LOW-LEVEL LIGHT THERAPY | 8544473 | 12204638 | | 09/04/2008 |
| PRE-INITIATED OPTICAL FIBERS AND METHODS OF MAKING THEREOF | | 15785261 | | 10/16/2017 |
| DENTAL LASER SYSTEM AND METHOD | | 15655164 | | 07/20/2017 |
| SYSTEM AND METHOD FOR CONTROLLING MULTIPLE LASERS USING A GRAPHICAL USER INTERFACE | | 15642154 | | 07/05/2017 |
| Systems and Methods for Disruption of an Eye Lens | | 14746794 | | 06/22/2015 |
| System and Method for Controlling Multiple Lasers Using a Graphical User Interface | 9696893 | 14735020 | | 06/09/2015 |
| DENTAL LASER INTERFACE SYSTEM AND METHOD | 9864485 | 14666287 | | 03/23/2015 |

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|--|---------|----------|--|------------|
| Pre-Initiated Optical Fibers for Medical Applications | 9788899 | 14628083 | | 02/20/2015 |
| MULTIPLE BEAM LASER TREATMENT DEVICE | | 14610650 | | 01/30/2015 |
| DUAL WAVELENGTH LASER TREATMENT DEVICE | | 14587955 | | 12/31/2014 |
| Disposable laser handpiece | D713538 | D475593 | | 12/04/2013 |
| Pressure Wave Root Canal Cleaning System | | 14617593 | | 02/09/2015 |
| Dental Laser Unit with Communication Link to Assistance Center | | 14204773 | | 03/11/2014 |
| Dual Wavelength Endodontic Treatment | | 14160996 | | 01/22/2014 |
| Eyelid Treatment Device | | 13837983 | | 03/15/2013 |
| Handpiece Assembly for Laser Treatment Device | 9867997 | 14060877 | | 10/23/2013 |
| Handpiece Finger Switch for Actuation of Handheld Medical Instrumentation | 8653392 | 13956989 | | 08/01/2013 |
| Methods for Treating Hyperopia and Presbyopia via Laser Tunneling | 8603079 | 13757169 | | 02/01/2013 |
| Disposable laser handpiece | D701971 | D418426 | | |
| SYSTEM AND METHOD FOR CONTROLLING MULTIPLE LASERS USING A GRAPHICAL USER INTERFACE | 9052805 | 13654944 | | 10/18/2012 |

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|--|---------|----------|--|------------|
| Surgical Laser Cutting Device | | 13633967 | | 10/03/2012 |
| Methods for Treating Eye Conditions | 8827990 | 13630971 | | 09/28/2012 |
| Systems and Methods for Disruption of an Eye Lens | 9060845 | 13633505 | | 10/02/2012 |
| METHODS FOR TREATING EYE CONDITIONS | | 13607722 | | 09/08/2012 |
| FLUID CONTROLLER | 8485818 | 13369193 | | 02/08/2012 |
| TAPERED FUSED WAVEGUIDE FOR TEETH WHITENING | 8439904 | 13209339 | | 08/12/2011 |
| Initiation sequences for ramping-up pulse power in a medical laser having high-intensity leading subpulses | 8821483 | 13283458 | | 10/27/2011 |
| METHODS FOR TREATING EYE CONDITIONS | 8448645 | 13169357 | | 10/20/2011 |
| METHODS FOR TREATING EYE CONDITIONS | 8602033 | 13009266 | | 01/19/2011 |
| METHODS FOR TREATING EYE CONDITIONS | 8276593 | 13069257 | | 03/22/2011 |
| HANDPIECE FINGER SWITCH FOR ACTUATION OF HANDHELD MEDICAL INSTRUMENTATION | 8525059 | 12985959 | | 01/06/2011 |
| METHODS FOR TREATING HYPEROPIA AND PRESBYOPIA VIA LASER TUNNELING | 8366702 | 12975202 | | 12/21/2010 |
| High power radiation source with active-media housing | 8588268 | 12912680 | | |
| TARGET-CLOSE ELECTROMAGNE | 8419719 | 12907827 | | 10/19/2010 |

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|---|---------|----------|--|------------|
| TIC ENERGY EMITTING DEVICE | | | | |
| ELECTROMAGNE TIC ENERGY DISTRIBUTIONS FOR ELECTROMAGNE TICALLY INDUCED MECHANICAL CUTTING | 7970027 | 12907845 | | 10/19/2010 |
| Electromagnetic energy output system | 8152797 | 12632774 | | 12/07/2009 |
| Non-contact handpiece for laser tissue cutting | 8403922 | 12626271 | | 11/25/2009 |
| Satellite-platformed electromagnetic energy treatment device | 8764739 | 12579890 | | 10/15/2009 |
| Methods and devices for treating presbyopia | 8479745 | 12540579 | | 08/13/2009 |
| Dual pulse-width medical laser with presets | 7970030 | 12368266 | | 02/09/2009 |
| Methods for treating eye conditions | 8056564 | 12264135 | | 11/03/2008 |
| Methods for treating eye conditions | 7997279 | 12264112 | | 11/03/2008 |
| Electromagnetic radiation emitting toothbrush and dentifrice system | 7942667 | 12264081 | | 11/03/2008 |
| Fluid and pulsed energy output system | 8033825 | 12245743 | | 10/04/2008 |
| Electromagnetic energy distributions for electromagnetically induced mechanical cutting | 7817687 | 12190797 | | 08/13/2008 |
| Fiber tip fluid output device | 8023795 | 12190690 | | 08/13/2008 |
| Fluid controllable laser endodontic cleaning and disinfecting system | 8002544 | 12142656 | | 06/19/2008 |

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|--|---------|----------|--|------------|
| Medical radiation device with a tapered fused waveguide | 7998136 | 12122689 | | 05/17/2008 |
| Modified-output fiber optic tips | 7702196 | 12202373 | | 09/01/2008 |
| Methods for treating eye conditions | 7967017 | 11975168 | | 10/17/2007 |
| Radiation emitting apparatus with spatially controllable output energy distributions | 7697814 | 11901839 | | 09/18/2007 |
| DUAL PULSE-WIDTH MEDICAL LASER | 7957440 | 12028817 | | 02/10/2008 |
| Methods for treating hyperopia and presbyopia via laser tunneling | 8256431 | 11980887 | | 10/30/2007 |
| Target-close electromagnetic energy emitting device | 7815630 | 11800435 | | 05/03/2007 |
| Methods for treating eye conditions | 8568392 | 11978868 | | 10/29/2007 |
| Methods for treating eye conditions | 7458380 | 11980886 | | 10/30/2007 |
| Methods for treating hyperopia and presbyopia via laser tunneling | 7867223 | 11980889 | | 10/30/2007 |
| Methods for treating eye conditions | 7891363 | 11978836 | | 10/29/2007 |
| Methods for treating eye conditions | 7909040 | 11906889 | | 10/04/2007 |
| Methods for treating eye conditions | 7461658 | 11973056 | | 10/04/2007 |
| Contra-angle rotating handpiece having tactile-feedback tip ferrule | 7578622 | 11904900 | | 09/27/2007 |
| Fiber tip detector apparatus and related methods | 7575381 | 11904801 | | 09/27/2007 |
| Contra-angle rotating handpiece having tactile-feedback tip ferrule | 7461982 | 11904677 | | 09/27/2007 |
| Electromagnetic energy output system | 7695469 | 11800434 | | 05/03/2007 |

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|---|---------|----------|--|------------|
| Modified-output fiber optic tips | 7421186 | 11800184 | | 05/03/2007 |
| Fiber detector apparatus and related methods | 7356208 | 11715218 | | 03/06/2007 |
| Tissue treatment device and method | 7751895 | 11447605 | | 06/05/2006 |
| Electromagnetic energy output system | 9101377 | 11698345 | | 01/25/2007 |
| Fiber tip fluid output device | 7424199 | 11644155 | | 12/22/2006 |
| Electromagnetic energy distributions for electromagnetically induced mechanical cutting | 7415050 | 11606660 | | 11/29/2006 |
| Electromagnetic energy distributions for electromagnetically induced mechanical cutting | 7696466 | 11523492 | | 09/18/2006 |
| Device having activated textured surfaces for treating oral tissue | 8241035 | 11441788 | | 05/25/2006 |
| Electromagnetic radiation emitting toothbrush and dentifrice system | 7467946 | 11438091 | | 05/18/2006 |
| Methods for treating eye conditions | 7665467 | 11413590 | | 04/26/2006 |
| Methods for treating hyperopia and presbyopia via laser tunneling | 7878204 | 11410564 | | 04/24/2006 |
| Caries detection using timing differentials between excitation and return pulses | 7303397 | 11203399 | | 08/12/2005 |
| Dual pulse-width medical laser | 7630420 | 11191594 | | 07/27/2005 |
| Contra-angle rotating handpiece having tactile-feedback tip ferrule | 7292759 | 11186619 | | 07/20/2005 |

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|---|---------|----------|--|------------|
| Fiber tip detector apparatus and related methods | 7290940 | 11181373 | | 07/13/2005 |
| Radiation emitting apparatus with spatially controllable output energy distributions | 7270657 | 11074452 | | 03/08/2005 |
| Modified-output fiber optic tips | 7620290 | 11033441 | | 01/10/2005 |
| Handpieces having illumination and laser outputs | 7563226 | 11033031 | | 01/10/2005 |
| Electromagnetic energy distributions for electromagnetically induced mechanical cutting | 7108693 | 10993498 | | 11/18/2004 |
| Tapered fused waveguide for delivering treatment electromagnetic radiation toward a target surfaced | 7384419 | 10705744 | | 11/10/2003 |
| Electromagnetic radiation emitting toothbrush and dentifrice system | 7261558 | 10624963 | | 07/21/2003 |
| Device for dental care and whitening | 7144249 | 10624847 | | 07/22/2003 |
| Fluid and laser system | 7320594 | 10435325 | | 05/09/2003 |
| Radiation emitting apparatus with spatially controllable output energy distributions | 6942658 | 10229374 | | 08/26/2002 |
| High-efficiency, side-pumped diode laser system | 7288086 | 10178080 | | 06/21/2002 |
| Device for reduction of thermal lensing | 6744790 | 10177743 | | 06/21/2002 |
| Electromagnetic energy distributions for electromagnetically induced cutting | 6821272 | 10164451 | | 06/06/2002 |

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|---|---------|----------------|--|------------|
| Fiber detector apparatus and related methods | 6829427 | 10029586 | | 10/24/2001 |
| Tissue remover and method | 6669685 | 09714479 | | 11/15/2000 |
| Electromagnetic radiation emitting toothbrush and dentifrice system | 6616451 | 09445947 | | 12/30/1998 |
| Device for dental care and whitening | 6616447 | 09991533 | | 11/15/2001 |
| Electromagnetically induced cutting with atomized fluid particles for dermatological applications | 6544256 | 09298112 | | 04/23/1999 |
| Rotating handpiece | 6389193 | 09469571 | | 12/22/1999 |
| Tissue remover and method | 6254597 | 09188072 | | 11/06/1998 |
| Intracavity modulated pulsed laser and methods of using the same | 5832013 | 08768250 | | 12/17/1996 |
| SURFACE STRUCTURE MODIFICATION | | 13127453 | | 11/03/2009 |
| Laser Systems, with a Fiber Storage and Dispensing Unit, Useful in Medicine and Dentistry | | 95002271 | | |
| | | PCT/US17/54101 | | 09/28/2017 |
| | | PCT/US17/55413 | | 10/05/2017 |
| | | PCT/US17/68009 | | 12/21/2017 |
| | | 62550509 | | 08/25/2017 |
| | | 15872859 | | 01/16/2018 |
| | | 15866173 | | 01/09/2018 |
| | | 15851452 | | 12/21/2017 |
| | | 15726221 | | 10/05/2017 |
| | | 15719137 | | 09/28/2017 |