INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Mohammed N. ISLAM
	Art Unit	
	Examiner Name	
	Attorney Docket Number	OMNI 0101 PUSA5

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Examiner Signature	/MD M RAHMAN/	Date Considered	08/13/2019

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See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ None

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A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

	1	NELLCOR; Charts 1-3: NELLCOR-533; U.S. Patent No. 9,651,533 vs. Nellcor; Omni MedSci, Inc. v. Apple Inc., pps. 1-155; May 22, 2019	
	2	LISOGURSKI; Charts 1-3: LISOGURSKI-533; U.S. Patent No. 9,651,533 vs. Lisogurski; Omni MedSci, Inc. v. Apple Inc., pps. 1-84; May 22, 2019	
	3	ASADA; Charts 1-3: ASADA-533; U.S. Patent No. 9,651,533 vs. Asada; Omni MedSci, Inc. v. Apple Inc., pps. 1-188; May 22, 2019	
	4	PARK; Charts 1-3: Park-533; U.S. Patent No. 9,651,533 vs. Park; Omni MedSci, Inc. v. Apple Inc., pps. 1-171; May 22, 2019	
	5	VALENCELL; Charts 1-3: Valencell-533; U.S. Patent No. 9,651,533 vs. Valencell; Omni MedSci, Inc. v. Apple Inc., pps. 1-122; May 22, 2019	

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Application Number	16506885
Filing Date	2019-07-09
First Named Inventor	Mohammed N. ISLAM
Art Unit	1636
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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	1	7787503	B2	2010-08-31	WADSWORTH	
	2	7800818	B2	2010-09-21	MATTSSON	
	3	8000574	B2	2011-08-16	BUCHTER	
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	1	SUN, Y., C.F. Booker, S. Kumari, R.N. Day, M. Davidson, A. Periasamy, "Characterization of an orange acceptor fluorescent protein for sensitized spectral fluorescence resonant energy transfer microscopy using a white-light laser," Journal of Biomedical Optics, Vol. 14, no. 5, paper 054009 (2009).	
	2	BORLINGHAUS, R., "Colours Count: how the challenge of fluorescence was solved in confocal microscopy," in Modern Research and Educational Topics in Microscopy, A. Mendez-Vilas and J. Diaz, eds, pp. 890-899, Formatex (2007)	
	3	BORLINGHAUS, R., "The White Confocal: Continuous Spectral Tuning in Excitation and Emission," in Optical Fluorescence Microscopy, A. Diaspro (Ed), Chapter 2, pp. 37-54, ISBN 978-3-642-15174-3, Springer-Verlag, Berlin (2011).	
	4	BORLINGHAUS, R.T., L. Kuschel, "White Light Laser: The Ultimate Source for Confocal Microscopy," http://www.leica-microsystems.com/science-lab/white-light-laser (June 27, 2012).	
	5	ZIEGLER, U., A.G. Bittermann, M. Hoechli, "Introduction to Confocal Laser Scanning Microscopy (LEICA)," www.zmb.unizh.ch, May 29, 2013.	
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The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-10
Name/Print	David S. Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Doc code: IDS
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Approved for use through 07/31/2012. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16506885
Filing Date	2019-07-09
First Named Inventor	Mohammed N. ISLAM
Art Unit	1636
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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	1	ROGGAN, A., M. FRIEBEL, K. DOSCHEL, A. HAHN, G. MULLER, "Optical properties of circulating human blood in the wavelength range 400-2500nm," Journal of Biomedical Optics, Vol. 4, no. 1, pp. 36-46, (January 1999).	
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	12	PARAWIRA, S. "Classification of hyperspectral breast images for cancer detection," December 4, 2009, downloaded from WWW, 5 pages.
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Name/Print	David S. Bir	Registration Number	38383

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
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Filing Date	2019-07-09
First Named Inventor	Mohammed N. ISLAM
Art Unit	1636
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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	1	20180231373	A1	2018-08-16	Pesach et al.	
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	3	20090185274	A1	2009-07-23	Shpunt	
	4	20100284082	A1	2010-11-11	Shpunt et al.	
	5	20110188054	A1	2011-08-04	Petronius et al.	

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	7	20100007717	A1	2010-01-14	Spektor et al.	

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	1	Segtnan, Vegard H., et al. "Screening of acrylamide contents in potato crisps using process variable settings and near-infrared spectroscopy." Molecular nutrition & food research 50.9 (2006): 811-817.	
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	16	Galvis-Sánchez, Andrea C., et al. "Fourier transform near-infrared spectroscopy application for sea salt quality evaluation." Journal of agricultural and food chemistry 59.20 (2011): 11109-11116.
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Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-10
Name/Print	David S. Bir	Registration Number	38383

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Mohammed N. ISLAM
	Art Unit	
	Examiner Name	
	Attorney Docket Number	OMNI 0101 PUSA5

	1	Notice of Allowance for U.S. Application No. 14/875,709 dated January 10, 2017	

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CERTIFICATION STATEMENT

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See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

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A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6885683		2005-04-26	FERMANN ET AL.	
	2	6281471	B1	2001-08-28	SMART	
	3	6340806		2002-01-22	SMART ET AL.	
	4	6301271	B1	2001-10-09	SANDERS ET AL.	
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	1	20100046067	A1	2010-02-25	FERMANN ET AL.	

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Attorney Docket Number	OMNI 0101 PUSA5

	2	20080105665	A1	2008-05-08	KONDO	

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	1	ISTEPANIAN, ROBERT H., "The Comparative Performance of Mobile Telemedical Systems based on the IS-54 and GSM Cellular Telephone Standards"; Journal of Telemedicine and Telecare 1999; pp 97-104	
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Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
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	1	8198589	B2	2012-06-12	Tolton, et al.	
	2	6509566	B1	2003-01-21	Wamsley, et al.	
	3	8472108		2013-06-25	Islam	

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	1	20130274569		2013-10-17	Islam	

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	1	CA 2 458 123	CA		2012-05-15	Tolton, et al.		

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	1	WATARI, M., H. MIGASHIYAMA, N. MITSUI, M. TOMO, Y. OZAKI, "On-line monitoring of the density of linear low-density polyethylene in a real plant by near-infrared spectroscopy and chemometrics," Applied Spectroscopy, vol. 58, no. 2, pp. 248-255 (2004)	
	2	TOLTON, B.T., "A concept for a gas-filter correlation radiometer to remotely sense the atmospheric carbon dioxide column from space," Notes and Correspondence, Journal of Atmospheric and Oceanic Technology, vol. 21, pp. 837-852, (May 2004).	
	3	NUNNALLY, W.C., S.K. HOLLAND, G. LAUFER, "Wide field of view solar occultation gas filter correlation radiometer for stratospheric methane measurements from a sounding rocket," Thermosense XXV, K.E. Elliot, X.P. Maldague, Editors, Proceedings of SPIE, Vol. 5073, pp. 122-130 (2003).	
	4	XIAO, J. Q. TIAN, Y. LU, L. WANG, X. QI, B. WEN, "Extraction of hydrocarbon content information by using hyperspectral image at Liaodong Bay, China," downloaded from world wide web on April 6, 2012.	
	5	McCOY, R.M., J.G. BLAKE, K.L. ANDREWS, "Detecting hydrocarbon microseepage," Oil and Gas Journal, pp. 40-45 (May 28, 2001).	
	6	VAN DER MEER, F. P. VAN DIJK, H. VAN DER WERFF, H. YANG, "Remote sensing and petroleum seepage: a review and case study," Terra Nova, vol. 14, no. 1, pp. 1-17 (2002).	
	7	VAN DER MEER, F., P. VAN DIJK, S. KROONENBERG, Y. HONG, H. LANG, "Hyperspectral hydrocarbon microseepage detection and monitoring: potentials and limitations," Second EARSEI workshop on imaging spectroscopy, pp. 1-9 (2000).	
	8	ANDREOLI, G. B. BULGARELLI, B. HOSGOOD, D. TARCHI, "Hyperspectral analysis of oil and oil-impacted soils for remote sensing purposes," Institute for the Protection and Security of the Citizen, European Commission Joint Research Centre, EUR 22739 EN (March 2007).	
	9	S.D. KHAN, S. JACOBSON, "Remote sensing and geochemistry for detecting hydrocarbon microseepages," GSA Bulletin, vol. 120, no. 1/2, pp. 96-105 (January/February 2008).	

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Examiner Signature	/MD M RAHMAN/	Date Considered	08/14/2019

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

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The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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Bibliographic Data

Application No: 16/506,885

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /MD M RAHMAN/ Examiner's Signature | Initials

Title: SEMICONDUCTOR DIODES-BASED PHYSIOLOGICAL MEASUREMENT DEVICE WITH IMPROVED SIGNAL-TO-NOISE RATIO

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
07/09/2019	250	2886	OMNI 0101 PUSA5
RULE			

APPLICANTS

Omni Medsci, Inc., Ann Arbor, MI, UNITED STATES

INVENTORS

Mohammed N. ISLAM Ann Arbor, MI, UNITED STATES

CONTINUING DATA

This application is a CON of 16284514 02/25/2019

This application is a CON of 16272069 02/11/2019

This application is a CON of 16241628 01/07/2019

This application is a CON of 16188194 11/12/2018 PAT 10386230

16272069 is a CON of 16029611 07/08/2018 PAT 10201283

16284514 is a CON of 16016649 06/24/2018 PAT 10213113

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15212549 is a CON of 14650897 06/10/2015 PAT 9494567

14650981 is a 371 of PCT/US2013/075767 12/17/2013

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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First Named Inventor	Mohammed N. ISLAM
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	1	7318909	B2	2008-01-15	Lehmann et al.	
	2	8180422	B2	2012-05-15	Rebec	
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	1	20030107739	A1	2003-06-12	Lehmann et al.	
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	1	102010012987	DE	A1	2010-10-07	FRAUNHOFER GES FORSCHUNG		
	2	2005013843	WO	A2	2005-02-17	The Regents of the University of California		
	3	2007061772	WO	A2	2007-05-31	OMNI SCIENCES, INC.		
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	1	VINAY V. ALEXANDER ET AL.; Modulation Instability High Power All-Fiber Supercontinuum Lasers And Their Applications; Optical Fiber Technology 18; 2012; pages 349-374.	
	2	ROBERT S. JONES ET AL.; Near-Infrared Transillumination At 1310-nm For The Imaging Of Early Dental Decay; Volume 11, No. 18; Optics Express 2259; September 8, 2003	
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Name/Print	David S. Bir	Registration Number	38383

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

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Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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	1	Pan, Yingtian, et al., "Hand-held arthroscopic optical coherence tomography for in vivo high-resolution imaging of articular cartilage", Journal of Biomedical Optics 8(4), October 2003, pages 648-654.	
	2	Xie, Tuqiang, et al., "Endoscopic optical coherence tomography with a modified microelectromechanical systems mirror for detection of bladder cancers", APPLIED OPTICS, Vol. 42, No. 31, November1, 2003, pages 6422-6426.	
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	12	I.B. Ads, A.A.E. Wagie, N.B. Mariun, A.B.E. Jammal, "An Internet-based blood pressure monitoring system for patients," Journal of Telemedicine and Telecare, 2001, pp. 51-53	
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	Application Number	
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Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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Application Number	16/506,885 - GAU: 2886
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First Named Inventor	Mohammed N. ISLAM
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	2	6505133	B1	2003-01-07	Hanna et al.	
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	1	20050049468	A1	2005-03-03	Carlson et al.	

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	2	Inter Partes Review No. IPR2019-00911; Petition for Inter Partes Review of U.S. Patent No. 9,861,286; Apple Inc. v. OMNI MEDSCI, INC.; pps. 1-83; dated April 10, 2019	
	3	Inter Partes Review No. IPR2019-00912; Petition for Inter Partes Review of U.S. Patent No. 9,885,698; Apple Inc. v. OMNI MEDSCI, INC.; pps. 1-94; dated April 10, 2019	
	4	Inter Partes Review No. IPR2019-00913; Petition for Inter Partes Review of U.S. Patent No. 9,651,533; Apple Inc. v. OMNI MEDSCI, INC.; pps. 1-96; dated April 10, 2019	

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	1	6181414		2001-01-30	Raz et al.	
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	2	20120239013		2012-09-20	Islam	
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	1	"Application Brief AB-070: The role of infrared microprobe analysis in forensic drug analysis," www.smithsdetection.com, June 27, 2005.	
	2	Jasco Application Note No. 200DR0188-E, "Rapid Identification of illegal drug using NIR (identification of MDMA tablet)", September 4, 2008.	
	3	PALOU, A. J. CRUZ, M. BLANCO, J. TOMAS, J. DE LOS RIOS, M. ALCALA, "Determination of drug, excipients and coating distribution in pharmaceutical tablets using NIR-CI," Journal of Pharmaceutical Analysis, Vol. 2, no. 2, pp. 90-97 (2012).	
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	6	MICHAELS, C.A., T. MASIELLO, P.M. CHU, "Fourier transform spectrometry with a near infrared supercontinuum source," Optical Society of America, CLEO/IQEC Conference, paper CMDD6 (2009).	
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	Application Number	
	Filing Date	
	First Named Inventor	Mohammed N. ISLAM
	Art Unit	
	Examiner Name	
	Attorney Docket Number	OMNI 0101 PUSA5

	17	SONDERMANN, N., K.A. KOVAR, "Identification of ecstasy in complex matrices using near-infrared spectroscopy," Forensic Science International, vol. 102, pp. 133-147 (1999).
	18	RAMBLA, F.J., S. GARRIGUES, M. DeLa GUARDIA, "PLS-NIR determination of total sugar, glucose, fructose and sucrose in aqueous solutions of fruit juices," Analytica Chimica Acta, vol. 344, pp. 41-53 (1997).

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Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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	1	5795300	A	1998-08-18	Bryars	
	2	6731967	B1	2004-05-04	Turcott	
	3	7648463	B1	2010-01-19	Elhag et al.	
	4	8172761	B1	2012-05-08	Rulkov et al.	
	5	8315682	B2	2012-11-20	Such et al.	
	6	8954135	B2	2015-02-10	Yuen et al.	
	7	9241676	B2	2016-01-26	Lisogurski et al.	

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	1	20050049468	A1	2005-03-03	Carlson et al.	

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	1	J.G. WEBSTER; Design Of Pulse Oximeters; Medical Science Series; Taylor & Francis Group; CRC Press; October 23, 1997; 260 pps	
	2	H. HARRY ASADA ET AL.; Mobile Monitoring With Wearable Photoplethysmographic Biosensors; IEEE Engineering In Medicine And Biology Magazine, June 2003; 13 pps	
	3	UNITED STATES DISTRICT COURT EASTERN DISTRICT OF TEXAS MARSHALL DIVISION; Defendant And Counter Claimant Apple Inc.'s Amended Answer, Affirmative Defenses, And Counterclaims To Complaint Of Plaintiff And Counter Defendant Omni Medsci, Inc.; Document 38; July 19, 2018; 32 pps	

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	1	Pan, Yingtian, et al., "Hand-held arthroscopic optical coherence tomography for in vivo high-resolution imaging of articular cartilage", Journal of Biomedical Optics 8(4), October 2003, pages 648-654.	
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	16	G.S. Edwards et al., "Free-electron-laser-based biophysical and biomedical instrumentation," American Institute of Physics, Vol. 74, No. 7, July 2003, pp. 3207-3245	
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	23	G. Edwards, et al., "Comparison of OPA and Mark-III FEL for Tissue Ablation at 6.45 Microns," Department of Physics and Free Electron Laser Laboratory, Duke University, 2002, 7 pages
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	25	PASSAT, "Solid-State Lasers and Optical Components," July 14, 2003, 5 pages
	26	P.A. Thielen and L.B. Shaw, et al., "Small-core As-Se fiber for Raman amplification," OPTICS LETI-ERS, Vol. 28, No. 16, August 15, 2003, 3 pages
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	28	U.S. Appln. Serial No. 10/652,276, "System and Method for Voice Control of Medical devices," by Mohammed N. Islam, abandoned (074036.0129) Date filed: August 29, 2003
	29	U.S. Appln. Serial No. 10/757,341, "System and Method for Voice Control of Medical devices," by Mohammed N. Islam, issued (074036.0132) Date filed: January 13, 2004
	30	U.S. Appln. Serial No. 12/206432, "System and Method for Voice Control of Medical Devices," by Mohammed N. Islam, pending (074036.0154) Date filed: September 8, 2008
	31	U.S. Patent and Trademark Office, Office Action for USSN 12/206,432, filed 09/08/2008, Mohammed N, Islam, Attorney Docket No. 074036.0154, Date filed: March 12, 2009
	32	U.S. Patent and Trademark Office, Notice of Allowance and Fee(s) Due for USSN 12/206,432, filed 09/08/2008, Mohammed N. Islam, Attorney Docket No. 074036.0154, Date filed: August 28, 2009

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OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.M.R/

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The information provided by you in this form will be subject to the following routine uses:

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	112998	actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:21
L2	4692	L1 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:21
L3	107493	rotation with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:21
L4	852	L3 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:21
L5	103	L3 and (motor near3 hollow with back)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:21
L6	649288	fiber with fixation with non$1 rotatably same rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:21
L7	103	L3 and (motor near3 hollow with back)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:21
L8	649288	fiber with fixation with non$1	US-PGPUB;	OR	OFF	2019/08/14

		rotatably same rotation	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			12:21
L9	41392	rotation with shaft with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:21
L10	447	L9 and (fiber with rotat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:22
L11	2	L10 and (actuator with slide with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:22
L12	1534	dynamic adj pressure with bearing with dynamic near2 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:22
L13	6753	catheter and probe and fiber and interference	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:22
L14	2195	L13 and ((target object sample) with probe and human)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:22
L15	310	L14 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:22
L16	7779	("5180378" | "5458122" | "5617871" | "6246896" | "6340806" | "6443890" | "6611643" | "6847336" | "7167300" | "20060223032" | "20100331637" | "4063106" | "4275266" | "4462080" | "4728974" | "5142930" | "5323404" |	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2019/08/14 12:22

		"5950629" | "6278975" | "6350261" | "6442430" | "6453201" | "6534012" | "6788965" | "6816241" | "8198589" | "7356364" | "20020082612" | "20020115914" | "20020178003" | "20080105665" | "5696778" | "5718234" | "6043927" | "6281471" | "6603910" | "6659947" | "6802811" | "4704696" | "4776016" | "4958910" | "5086401" | "5267323" | "6115673" | "6200309" | "6246707" | "6301273" | "6337462" | "6567431" | "6587702" | "6625180" | "6631025" | "6659999" | "6760148" | "7133710" | "7433116" | "20110282167" | "20060245461" | "20060268393" | "5084880" | "5687734" | "20030022126" | "4158750" | "4516207" | "5303148" | "5313306" | "5792204" | "5970457" | "6340806" | "6436107" | "6512936" | "7010336" | "7299080" | "7519406" | "7697966" | "7787924" | "8145286" | "20030152307" | "9207121")	IBM_TDB			
L17	1	L16 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/14 12:22
L18	425	((("ISLAM") near3 ("Mohammed"))).INV.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2019/08/14 12:26
S1	0	"14717896"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 18:43
S2	2	"20150338580"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 18:51
S3	3	"20050168751"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 18:59
S4	0	"2015320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/06/21 22:23

			IBM_TDB			
S5	2	"20150320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:24
S6	4223	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:34
S7	190	S6 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:34
S8	80	S7 and (interferen$3 and fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:35
S9	10	S8 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:36
S10	5420	catheter and probe and fiber and interference	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:36
S11	2203	S10 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:36
S12	1830	S10 and ((target object sample) with probe and human)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:37
S13	260	S12 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/06/21 22:37

			EPO; JPO; DERWENT; IBM_TDB			
S14	20	S13 and (rotation with shaft same motor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:37
S15	0	S14 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:40
S16	41	S13 and (rotation with shaft and motor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/21 22:41
S17	1	"20150338580"	DERWENT	OR	OFF	2016/06/22 10:42
S18	1	"20100105980"	DERWENT	OR	OFF	2016/06/22 10:43
S19	7	"20100105980"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 10:43
S20	211	optical adj imaging adj probe	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 10:47
S21	18	S20 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 10:47
S22	6	"20090079993"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 10:50
S23	4223	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/06/22 13:04

			EPO; JPO; DERWENT; IBM_TDB			
S24	281	S23 and (fiber with tube)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 13:04
S25	41	S24 and ((prism mirror) with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 13:04
S26	13	S25 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 13:05
S27	110	NAMIKI adj SEIMITSU adj HOUSEKI adj KABUSHIKI adj KAISHA	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 13:07
S28	0	S27 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 13:07
S29	7	S27 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 13:08
S30	4	S27 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 13:10
S31	2	"20110164255"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 14:01
S32	3	"20130308117"	US-PGPUB; USPAT;	OR	OFF	2016/06/22 14:02

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S33	1576	displace$4 with detect$3 with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:37
S34	0	S33 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:37
S35	16	S33 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:37
S36	2453	detect$3 with measur$3 with amount with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:43
S37	15	S36 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:43
S38	13	(rotation near2 detector) and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:45
S39	44283	(detect$3 sensor) with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:48
S40	106	S39 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:48

S41	1458	(detect$3 sensor) with measur$3 with rotation near3 amount	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:51
S42	6	S41 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 16:51
S43	2339	advantage near3 rotation with detect$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 17:04
S44	0	S43 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 17:04
S45	5	S43 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 17:04
S46	1407	rotation with shaft and (dynamic with pressure with bearing same groove)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 18:16
S47	49	S46 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 18:17
S48	3199	dynamic adj pressure with bearing with dynamic with groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 18:33
S49	60	S48 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/06/22 18:33

			DERWENT; IBM_TDB			
S50	1370	dynamic adj pressure with bearing with dynamic near2 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 18:38
S51	19	S50 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 18:38
S52	10	S50 and (probe and measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 20:01
S53	1080321	rotation with shaft	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 20:16
S54	21271	rotation with shaft near3 hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 20:16
S55	21	S54 and ((prism mirror) with rotation same fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/22 20:17
S56	1706090	fiber with fixation with non$1 rotatably	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:24
S57	550394	fiber with fixation with non$1 rotatably same rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:24
S58	61	S57 and optical with inner with measur$3	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/06/23 10:24

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S59	61	S57 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:25
S60	2	"20150219436"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:46
S61	33736	rotation with shaft with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:47
S62	62	S61 and (fiber with rotatable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:47
S63	382	S61 and (fiber with rotat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:47
S64	0	S63 and (actuator with slide with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:48
S65	10	S63 and (actuator with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:48
S66	0	S63 and (actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:48
S67	56	(actuator with press with fiber)	US-PGPUB;	OR	OFF	2016/06/23

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			10:49
S68	3	S67 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:49
S69	115	direct with actuator with fiber	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:51
S70	0	S69 and (rotation with shaft with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:51
S71	0	S69 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:52
S72	86707	rotation with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:57
S73	66	S72 and (motor near3 hollow with back)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:57
S74	8	S73 and actuator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 10:57
S75	0	S73 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/06/23 11:07

			IBM_TDB			
S76	651	S72 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 11:08
S77	111	S76 and (motor with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 11:08
S78	708	direct with actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:04
S79	3	S78 and (fiber with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:04
S80	93293	actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:04
S81	171	S80 and (fiber with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:05
S82	0	S81 and (simultaneously with lightZZ)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:05
S83	2	S81 and (simultaneously with light)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:05
S84	8	S81 and (press and pulls)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/06/23 14:07

			EPO; JPO; DERWENT; IBM_TDB			
S85	1	S81 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:24
S86	3841	S80 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:32
S87	9	S86 and (fiber same hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:32
S88	12299165	G 01B 9/02 G 01D 5/266 G 01D 5/38, G 01B 11/002, G 01B 11/026	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:52
S89	1243	S88 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/23 14:52
S90	294	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/01 17:22
S91	1776	356/300.CCLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/01 17:23
S92	75098	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:10
S93	127	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB	OR	OFF	2016/07/02 11:35
S94	1	S92 AND S93 AND (blood pulp)	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/07/02 11:36

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S95	25	S93 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:36
S96	8	S93 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:39
S97	42	(semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:41
S98	12	S97 and (broadened with spectrum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:41
S99	12	S97 and (broadened with spectrum and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:44
S100	18	S97 and (spectroscopy and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:44
S101	0	S100 and ((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:45
S102	0	((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:46
S103	35	((detect$3 sensor receiver) and	US-PGPUB;	OR	OFF	2016/07/02

		hydro adj carbon with bond)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			11:46
S104	0	S103 and (fiber with fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:47
S105	0	S103 and (fiber and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:47
S106	0	nonlinear with element with nanometer with effect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:48
S107	178	interface with sample with spectroscopy	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:49
S108	11	S107 and (amplifier)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:53
S109	407	(fiber with fused with silica).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/02 11:57
S126	5873	("5180378" | "5458122" | "5617871" | "6246896" | "6340806" | "6443890" | "6611643" | "6847336" | "7167300" | "20060223032" | "20100331637" | "4063106" | "4275266" | "4462080" | "4728974" | "5142930" | "5323404" | "5950629" | "6278975" | "6350261" | "6442430" | "6453201" | "6534012" | "6788965" | "6816241" | "8198589" | "7356364" | "20020082612" | "20020115914" | "20020178003" | "20080105665" | "5696778" | "5718234" | "6043927" | "6281471" | "6603910" | "6659947" | "6802811" |	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/26 15:07

		"4704696" | "4776016" | "4958910" | "5086401" | "5267323" | "6115673" | "6200309" | "6246707" | "6301273" | "6337462" | "6567431" | "6587702" | "6625180" | "6631025" | "6659999" | "6760148" | "7133710" | "7433116" | "20110282167" | "20060245461" | "20060268393" | "5084880" | "5687734" | "20030022126" | "4158750" | "4516207" | "5303148" | "5313306" | "5792204" | "5970457" | "6340806" | "6436107" | "6512936" | "7010336" | "7299080" | "7519406" | "7697966" | "7787924" | "8145286" | "20030152307" | "9207121")				
S127	0	S126 and ((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/26 15:08
S128	0	S126 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/26 15:14
S129	3	S126 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/26 15:14
S130	6	"8180422"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/08 11:37
S131	3	"14717896"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S132	3	"20150338580"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S133	3	"20050168751"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/10/30 15:47

			DERWENT; IBM_TDB			
S134	1	"2015320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S135	3	"20150320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S136	4813	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S137	226	S136 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S138	88	S137 and (interferen$3 and fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S139	10	S138 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S140	6074	catheter and probe and fiber and interference	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S141	2430	S140 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S142	2002	S140 and ((target object sample) with probe and human)	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/10/30 15:47

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S143	284	S142 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S144	25	S143 and (rotation with shaft same motor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S145	0	S144 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S146	46	S143 and (rotation with shaft and motor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S147	1	"20150338580"	DERWENT	OR	OFF	2017/10/30 15:47
S148	1	"20100105980"	DERWENT	OR	OFF	2017/10/30 15:47
S149	7	"20100105980"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S150	265	optical adj imaging adj probe	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S151	24	S150 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S152	6	"20090079993"	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/10/30 15:47

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S153	4813	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S154	328	S153 and (fiber with tube)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S155	50	S154 and ((prism mirror) with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S156	15	S155 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S157	126	NAMIKI adj SEIMITSU adj HOUSEKI adj KABUSHIKI adj KAISHA	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S158	3	S157 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S159	13	S157 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S160	12	S157 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S161	2	"20110164255"	US-PGPUB;	OR	OFF	2017/10/30

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:47
S162	3	"20130308117"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S163	1778	displace$4 with detect$3 with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S164	3	S163 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S165	19	S163 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S166	2774	detect$3 with measur$3 with amount with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S167	19	S166 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S168	15	(rotation near2 detector) and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S169	50891	(detect$3 sensor) with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/10/30 15:47

			IBM_TDB			
S170	120	S169 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S171	1640	(detect$3 sensor) with measur$3 with rotation near3 amount	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S172	10	S171 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S173	2510	advantage near3 rotation with detect$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S174	0	S173 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S175	5	S173 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S176	1450	rotation with shaft and (dynamic with pressure with bearing same groove)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S177	54	S176 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S178	3378	dynamic adj pressure with bearing with dynamic with groove	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/10/30 15:47

			EPO; JPO; DERWENT; IBM_TDB			
S179	65	S178 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S180	1451	dynamic adj pressure with bearing with dynamic near2 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S181	23	S180 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S182	12	S180 and (probe and measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S183	1191539	rotation with shaft	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S184	23131	rotation with shaft near3 hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S185	25	S184 and ((prism mirror) with rotation same fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S186	1868963	fiber with fixation with non$1 rotatably	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S187	590355	fiber with fixation with non$1 rotatably same rotation	US-PGPUB; USPAT;	OR	OFF	2017/10/30 15:47

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S188	70	S187 and optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S189	70	S187 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S190	2	"20150219436"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S191	36800	rotation with shaft with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S192	68	S191 and (fiber with rotatable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S193	410	S191 and (fiber with rotat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S194	2	S193 and (actuator with slide with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S195	12	S193 and (actuator with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47

S196	0	S193 and (actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S197	64	(actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:47
S198	4	S197 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S199	135	direct with actuator with fiber	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S200	2	S199 and (rotation with shaft with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S201	3	S199 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S202	94804	rotation with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S203	84	S202 and (motor near3 hollow with back)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S204	11	S203 and actuator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/10/30 15:48

			DERWENT; IBM_TDB			
S205	2	S203 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S206	729	S202 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S207	132	S206 and (motor with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S208	771	direct with actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S209	5	S208 and (fiber with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S210	101659	actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S211	210	S210 and (fiber with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S212	0	S211 and (simultaneously with lightZZ)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S213	5	S211 and (simultaneously with light)	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/10/30 15:48

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S214	11	S211 and (press and pulls)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S215	1	S211 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S216	4220	S210 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S217	9	S216 and (fiber same hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S218	13518101	G 01B 9/02 G 01D 5/266 G 01D 5/38, G 01B 11/002, G 01B 11/026	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S219	1451	S218 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S220	324	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/10/30 15:48
S221	1880	356/300.CCLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S222	87111	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/10/30 15:48

			DERWENT; IBM_TDB			
S223	139	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB	OR	OFF	2017/10/30 15:48
S224	3	S222 AND S223 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S225	31	S223 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S226	12	S223 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S227	61	(semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S228	22	S227 and (broadened with spectrum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S229	22	S227 and (broadened with spectrum and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S230	28	S227 and (spectroscopy and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S231	0	S230 and ((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48

S232	0	((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S233	37	((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S234	0	S233 and (fiber with fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S235	0	S233 and (fiber and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S236	0	nonlinear with element with nanometer with effect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S237	206	interface with sample with spectroscopy	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S238	15	S237 and (amplifier)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S239	447	(fiber with fused with silica).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S240	6640	("5180378" | "5458122" | "5617871" | "6246896" | "6340806" | "6443890" | "6611643" | "6847336" | "7167300" | "20060223032" | "20100331637" | "4063106" | "4275266" | "4462080" |	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/10/30 15:48

		"4728974" | "5142930" | "5323404" | "5950629" | "6278975" | "6350261" | "6442430" | "6453201" | "6534012" | "6788965" | "6816241" | "8198589" | "7356364" | "20020082612" | "20020115914" | "20020178003" | "20080105665" | "5696778" | "5718234" | "6043927" | "6281471" | "6603910" | "6659947" | "6802811" | "4704696" | "4776016" | "4958910" | "5086401" | "5267323" | "6115673" | "6200309" | "6246707" | "6301273" | "6337462" | "6567431" | "6587702" | "6625180" | "6631025" | "6659999" | "6760148" | "7133710" | "7433116" | "20110282167" | "20060245461" | "20060268393" | "5084880" | "5687734" | "20030022126" | "4158750" | "4516207" | "5303148" | "5313306" | "5792204" | "5970457" | "6340806" | "6436107" | "6512936" | "7010336" | "7299080" | "7519406" | "7697966" | "7787924" | "8145286" | "20030152307" | "9207121")	DERWENT; IBM_TDB			
S241	0	S240 and ((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S242	0	S240 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S243	9	S240 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S244	24	"8180422"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/30 15:48
S261	3	"20150215529"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/31 10:11
S262	4	"14717896"	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/04/06 15:14

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S263	3	"20150338580"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S264	3	"20050168751"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S265	1	"2015320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S266	3	"20150320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S267	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S268	233	S267 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S269	89	S268 and (interferen$3 and fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S270	11	S269 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S271	6230	catheter and probe and fiber and	US-PGPUB;	OR	OFF	2018/04/06

		interference	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:14
S272	2496	S271 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S273	2052	S271 and ((target object sample) with probe and human)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S274	293	S273 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S275	25	S274 and (rotation with shaft same motor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S276	0	S275 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S277	47	S274 and (rotation with shaft and motor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S278	1	"20150338580"	DERWENT	OR	OFF	2018/04/06 15:14
S279	1	"20100105980"	DERWENT	OR	OFF	2018/04/06 15:14
S280	7	"20100105980"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S281	283	optical adj imaging adj probe	US-PGPUB;	OR	OFF	2018/04/06

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:14
S282	27	S281 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S283	6	"20090079993"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S284	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S285	346	S284 and (fiber with tube)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S286	50	S285 and ((prism mirror) with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S287	15	S286 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S288	130	NAMIKI adj SEIMITSU adj HOUSEKI adj KABUSHIKI adj KAISHA	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S289	3	S288 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/04/06 15:14

			IBM_TDB			
S290	14	S288 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S291	13	S288 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S292	2	"20110164255"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S293	3	"20130308117"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S294	1844	displace$4 with detect$3 with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S295	3	S294 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S296	20	S294 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S297	2864	detect$3 with measur$3 with amount with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S298	21	S297 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/04/06 15:14

			EPO; JPO; DERWENT; IBM_TDB			
S299	15	(rotation near2 detector) and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S300	53059	(detect$3 sensor) with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S301	125	S300 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S302	1700	(detect$3 sensor) with measur$3 with rotation near3 amount	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S303	12	S302 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S304	2558	advantage near3 rotation with detect$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S305	0	S304 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S306	6	S304 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S307	1464	rotation with shaft and (dynamic with pressure with bearing same	US-PGPUB; USPAT;	OR	OFF	2018/04/06 15:14

		groove)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S308	54	S307 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S309	3418	dynamic adj pressure with bearing with dynamic with groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S310	65	S309 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S311	1470	dynamic adj pressure with bearing with dynamic near2 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S312	23	S311 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S313	12	S311 and (probe and measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S314	1227276	rotation with shaft	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S315	23703	rotation with shaft near3 hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14

S316	26	S315 and ((prism mirror) with rotation same fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S317	1932791	fiber with fixation with non$1 rotatably	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S318	603427	fiber with fixation with non$1 rotatably same rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S319	73	S318 and optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S320	73	S318 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S321	2	"20150219436"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S322	37823	rotation with shaft with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S323	69	S322 and (fiber with rotatable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S324	415	S322 and (fiber with rotat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2018/04/06 15:14

			DERWENT; IBM_TDB			
S325	2	S324 and (actuator with slide with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S326	12	S324 and (actuator with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S327	0	S324 and (actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S328	64	(actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S329	4	S328 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S330	140	direct with actuator with fiber	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S331	2	S330 and (rotation with shaft with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S332	4	S330 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S333	97391	rotation with hollow	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/04/06 15:14

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S334	86	S333 and (motor near3 hollow with back)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S335	11	S334 and actuator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S336	2	S334 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S337	760	S333 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S338	136	S337 and (motor with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S339	792	direct with actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S340	5	S339 and (fiber with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S341	104279	actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S342	219	S341 and (fiber with hollow)	US-PGPUB;	OR	OFF	2018/04/06

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:14
S343	0	S342 and (simultaneously with lightZZ)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S344	6	S342 and (simultaneously with light)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S345	11	S342 and (press and pulls)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S346	1	S342 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S347	4344	S341 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S348	9	S347 and (fiber same hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S349	13919266	G 01B 9/02 G 01D 5/266 G 01D 5/38, G 01B 11/002, G 01B 11/026	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S350	1524	S349 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/04/06 15:14

			IBM_TDB			
S351	333	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 15:14
S352	1902	356/300.CCLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S353	90914	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S354	143	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB	OR	OFF	2018/04/06 15:14
S355	4	S353 AND S354 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S356	34	S354 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S357	14	S354 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S358	68	(semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S359	27	S358 and (broadened with spectrum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S360	27	S358 and (broadened with spectrum and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2018/04/06 15:14

			DERWENT; IBM_TDB			
S361	33	S358 and (spectroscopy and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S362	0	S361 and ((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S363	0	((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S364	38	((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S365	0	S364 and (fiber with fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S366	0	S364 and (fiber and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S367	0	nonlinear with element with nanometer with effect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S368	215	interface with sample with spectroscopy	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S369	18	S368 and (amplifier)	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/04/06 15:14

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S370	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S371	6919	("5180378" | "5458122" | "5617871" | "6246896" | "6340806" | "6443890" | "6611643" | "6847336" | "7167300" | "20060223032" | "20100331637" | "4063106" | "4275266" | "4462080" | "4728974" | "5142930" | "5323404" | "5950629" | "6278975" | "6350261" | "6442430" | "6453201" | "6534012" | "6788965" | "6816241" | "8198589" | "7356364" | "20020082612" | "20020115914" | "20020178003" | "20080105665" | "5696778" | "5718234" | "6043927" | "6281471" | "6603910" | "6659947" | "6802811" | "4704696" | "4776016" | "4958910" | "5086401" | "5267323" | "6115673" | "6200309" | "6246707" | "6301273" | "6337462" | "6567431" | "6587702" | "6625180" | "6631025" | "6659999" | "6760148" | "7133710" | "7433116" | "20110282167" | "20060245461" | "20060268393" | "5084880" | "5687734" | "20030022126" | "4158750" | "4516207" | "5303148" | "5313306" | "5792204" | "5970457" | "6340806" | "6436107" | "6512936" | "7010336" | "7299080" | "7519406" | "7697966" | "7787924" | "8145286" | "20030152307" | "9207121")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S372	0	S371 and ((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S373	0	S371 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S374	12	S371 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S375	27	"8180422"	US-PGPUB;	OR	OFF	2018/04/06

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:14
S376	4	"14717896"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S377	3	"20150338580"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S378	3	"20050168751"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S379	1	"2015320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S380	3	"20150320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S381	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S382	233	S381 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S383	89	S382 and (interferen$3 and fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/04/06 15:14

			IBM_TDB			
S384	11	S383 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S385	6230	catheter and probe and fiber and interference	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S386	2496	S385 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S387	2052	S385 and ((target object sample) with probe and human)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S388	293	S387 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S389	25	S388 and (rotation with shaft same motor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S390	0	S389 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S391	47	S388 and (rotation with shaft and motor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S392	1	"20150338580"	DERWENT	OR	OFF	2018/04/06 15:14
S393	1	"20100105980"	DERWENT	OR	OFF	2018/04/06

						15:14
S394	7	"20100105980"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S395	283	optical adj imaging adj probe	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S396	27	S395 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S397	6	"20090079993"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S398	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S399	346	S398 and (fiber with tube)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S400	50	S399 and ((prism mirror) with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S401	15	S400 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S402	130	NAMIKI adj SEIMITSU adj HOUSEKI adj KABUSHIKI adj KAISHA	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/04/06 15:14

			EPO; JPO; DERWENT; IBM_TDB			
S403	3	S402 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S404	14	S402 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S405	13	S402 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S406	2	"20110164255"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S407	3	"20130308117"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S408	1844	displace$4 with detect$3 with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S409	3	S408 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S410	20	S408 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S411	2864	detect$3 with measur$3 with amount with rotation	US-PGPUB; USPAT;	OR	OFF	2018/04/06 15:14

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S412	21	S411 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S413	15	(rotation near2 detector) and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S414	53059	(detect$3 sensor) with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S415	125	S414 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S416	1700	(detect$3 sensor) with measur$3 with rotation near3 amount	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S417	12	S416 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S418	2558	advantage near3 rotation with detect$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S419	0	S418 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14

S420	6	S418 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S421	1464	rotation with shaft and (dynamic with pressure with bearing same groove)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S422	54	S421 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S423	3418	dynamic adj pressure with bearing with dynamic with groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S424	65	S423 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S425	1470	dynamic adj pressure with bearing with dynamic near2 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S426	23	S425 and (inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S427	12	S425 and (probe and measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S428	1227276	rotation with shaft	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2018/04/06 15:14

			DERWENT; IBM_TDB			
S429	23703	rotation with shaft near3 hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S430	26	S429 and ((prism mirror) with rotation same fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S431	1932791	fiber with fixation with non$1 rotatably	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S432	603427	fiber with fixation with non$1 rotatably same rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S433	73	S432 and optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S434	73	S432 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S435	2	"20150219436"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S436	37823	rotation with shaft with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S437	69	S436 and (fiber with rotatable)	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/04/06 15:14

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S438	415	S436 and (fiber with rotat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S439	2	S438 and (actuator with slide with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S440	12	S438 and (actuator with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S441	0	S438 and (actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S442	64	(actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S443	4	S442 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S444	140	direct with actuator with fiber	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S445	2	S444 and (rotation with shaft with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S446	4	S444 and (rotation with hollow)	US-PGPUB;	OR	OFF	2018/04/06

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:14
S447	97391	rotation with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S448	86	S447 and (motor near3 hollow with back)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S449	11	S448 and actuator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S450	2	S448 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S451	760	S447 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S452	136	S451 and (motor with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S453	792	direct with actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S454	5	S453 and (fiber with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/04/06 15:14

			IBM_TDB			
S455	104279	actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S456	219	S455 and (fiber with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S457	0	S456 and (simultaneously with lightZZ)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S458	6	S456 and (simultaneously with light)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S459	11	S456 and (press and pulls)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S460	1	S456 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S461	4344	S455 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S462	9	S461 and (fiber same hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S463	13919266	G 01B 9/02 G 01D 5/266 G 01D 5/38, G 01B 11/002, G 01B 11/026	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/04/06 15:14

			EPO; JPO; DERWENT; IBM_TDB			
S464	1524	S463 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S465	333	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 15:14
S466	1902	356/300.CCLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S467	90914	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S468	143	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB	OR	OFF	2018/04/06 15:14
S469	4	S467 AND S468 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S470	34	S468 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S471	14	S468 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S472	68	(semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S473	27	S472 and (broadened with spectrum)	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/04/06 15:14

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S474	27	S472 and (broadened with spectrum and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S475	33	S472 and (spectroscopy and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S476	0	S475 and ((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S477	0	((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S478	38	((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S479	0	S478 and (fiber with fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S480	0	S478 and (fiber and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S481	0	nonlinear with element with nanometer with effect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S482	215	interface with sample with	US-PGPUB;	OR	OFF	2018/04/06

		spectroscopy	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:14
S483	18	S482 and (amplifier)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S484	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S485	6919	("5180378" | "5458122" | "5617871" | "6246896" | "6340806" | "6443890" | "6611643" | "6847336" | "7167300" | "20060223032" | "20100331637" | "4063106" | "4275266" | "4462080" | "4728974" | "5142930" | "5323404" | "5950629" | "6278975" | "6350261" | "6442430" | "6453201" | "6534012" | "6788965" | "6816241" | "8198589" | "7356364" | "20020082612" | "20020115914" | "20020178003" | "20080105665" | "5696778" | "5718234" | "6043927" | "6281471" | "6603910" | "6659947" | "6802811" | "4704696" | "4776016" | "4958910" | "5086401" | "5267323" | "6115673" | "6200309" | "6246707" | "6301273" | "6337462" | "6567431" | "6587702" | "6625180" | "6631025" | "6659999" | "6760148" | "7133710" | "7433116" | "20110282167" | "20060245461" | "20060268393" | "5084880" | "5687734" | "20030022126" | "4158750" | "4516207" | "5303148" | "5313306" | "5792204" | "5970457" | "6340806" | "6436107" | "6512936" | "7010336" | "7299080" | "7519406" | "7697966" | "7787924" | "8145286" | "20030152307" | "9207121")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S486	0	S485 and ((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S487	0	S485 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/04/06 15:14

			IBM_TDB			
S488	12	S485 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S489	27	"8180422"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 15:14
S490	3	"20150215529"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/06 15:14
S523	4	"14717896"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S526	1	"2015320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S528	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S529	233	S528 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S530	89	S529 and (interferen$3 and fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S532	6230	catheter and probe and fiber and interference	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/04/07 09:33

			EPO; JPO; DERWENT; IBM_TDB			
S533	2496	S532 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S534	2052	S532 and ((target object sample) with probe and human)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S535	293	S534 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S537	0	S536 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S539	1	"20150338580"	DERWENT	OR	OFF	2018/04/07 09:33
S540	1	"20100105980"	DERWENT	OR	OFF	2018/04/07 09:33
S542	283	optical adj imaging adj probe	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S545	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S546	346	S545 and (fiber with tube)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S547	50	S546 and ((prism mirror) with fiber)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/04/07 09:33

			EPO; JPO; DERWENT; IBM_TDB			
S549	130	NAMIKI adj SEIMITSU adj HOUSEKI adj KABUSHIKI adj KAISHA	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S550	3	S549 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S553	2	"20110164255"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S555	1844	displace$4 with detect$3 with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S556	3	S555 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S558	2864	detect$3 with measur$3 with amount with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S561	53065	(detect$3 sensor) with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S563	1700	(detect$3 sensor) with measur$3 with rotation near3 amount	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S565	2560	advantage near3 rotation with detect$3	US-PGPUB; USPAT;	OR	OFF	2018/04/07 09:33

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S566	0	S565 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S568	1464	rotation with shaft and (dynamic with pressure with bearing same groove)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S570	3418	dynamic adj pressure with bearing with dynamic with groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S572	1470	dynamic adj pressure with bearing with dynamic near2 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S575	1227457	rotation with shaft	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S576	23705	rotation with shaft near3 hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S578	1933451	fiber with fixation with non$1 rotatably	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S579	603499	fiber with fixation with non$1 rotatably same rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33

S582	2	"20150219436"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S583	37828	rotation with shaft with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S584	69	S583 and (fiber with rotatable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S585	415	S583 and (fiber with rotat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S586	2	S585 and (actuator with slide with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S587	12	S585 and (actuator with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S588	0	S585 and (actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S589	64	(actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S591	140	direct with actuator with fiber	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2018/04/07 09:33

			DERWENT; IBM_TDB			
S592	2	S591 and (rotation with shaft with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S593	4	S591 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S594	97404	rotation with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S595	86	S594 and (motor near3 hollow with back)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S597	2	S595 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S598	760	S594 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S600	792	direct with actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S602	104285	actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S603	219	S602 and (fiber with hollow)	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/04/07 09:33

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S604	0	S603 and (simultaneously with lightZZ)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S607	1	S603 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S608	4344	S602 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S610	13922933	G 01B 9/02 G 01D 5/266 G 01D 5/38, G 01B 11/002, G 01B 11/026	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S611	1524	S610 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S613	1902	356/300.CCLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S614	90928	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S615	143	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB	OR	OFF	2018/04/07 09:33
S616	4	S614 AND S615 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/04/07 09:33

			IBM_TDB			
S617	34	S615 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S618	14	S615 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S619	68	(semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S620	27	S619 and (broadened with spectrum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S621	27	S619 and (broadened with spectrum and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S622	33	S619 and (spectroscopy and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S623	0	S622 and ((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S624	0	((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S625	38	((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/04/07 09:33

			EPO; JPO; DERWENT; IBM_TDB			
S626	0	S625 and (fiber with fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S627	0	S625 and (fiber and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S628	0	nonlinear with element with nanometer with effect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S629	215	interface with sample with spectroscopy	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S631	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S632	6919	("5180378" | "5458122" | "5617871" | "6246896" | "6340806" | "6443890" | "6611643" | "6847336" | "7167300" | "20060223032" | "20100331637" | "4063106" | "4275266" | "4462080" | "4728974" | "5142930" | "5323404" | "5950629" | "6278975" | "6350261" | "6442430" | "6453201" | "6534012" | "6788965" | "6816241" | "8198589" | "7356364" | "20020082612" | "20020115914" | "20020178003" | "20080105665" | "5696778" | "5718234" | "6043927" | "6281471" | "6603910" | "6659947" | "6802811" | "4704696" | "4776016" | "4958910" | "5086401" | "5267323" | "6115673" | "6200309" | "6246707" | "6301273" | "6337462" | "6567431" | "6587702" | "6625180" | "6631025" | "6659999" | "6760148" | "7133710" | "7433116" | "20110282167" | "20060245461" | "20060268393" | "5084880" | "5687734" | "20030022126" | "4158750" | "4516207" | "5303148" |	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33

		"5313306" | "5792204" | "5970457" | "6340806" | "6436107" | "6512936" | "7010336" | "7299080" | "7519406" | "7697966" | "7787924" | "8145286" | "20030152307" | "9207121")				
S633	0	S632 and ((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S634	0	S632 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S635	12	S632 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S637	4	"14717896"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S640	1	"2015320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S642	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S643	233	S642 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S644	89	S643 and (interferen$3 and fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33

S646	6230	catheter and probe and fiber and interference	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S647	2496	S646 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S648	2052	S646 and ((target object sample) with probe and human)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S649	293	S648 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S651	0	S650 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S653	1	"20150338580"	DERWENT	OR	OFF	2018/04/07 09:33
S654	1	"20100105980"	DERWENT	OR	OFF	2018/04/07 09:33
S656	283	optical adj imaging adj probe	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S659	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S660	346	S659 and (fiber with tube)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33

S661	50	S660 and ((prism mirror) with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S663	130	NAMIKI adj SEIMITSU adj HOUSEKI adj KABUSHIKI adj KAISHA	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S664	3	S663 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S667	2	"20110164255"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S669	1844	displace$4 with detect$3 with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S670	3	S669 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S672	2864	detect$3 with measur$3 with amount with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S675	53065	(detect$3 sensor) with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S677	1700	(detect$3 sensor) with measur$3 with rotation near3 amount	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2018/04/07 09:33

			DERWENT; IBM_TDB			
S679	2560	advantage near3 rotation with detect$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S680	0	S679 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S682	1464	rotation with shaft and (dynamic with pressure with bearing same groove)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S684	3418	dynamic adj pressure with bearing with dynamic with groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S686	1470	dynamic adj pressure with bearing with dynamic near2 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S689	1227457	rotation with shaft	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S690	23705	rotation with shaft near3 hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S692	1933451	fiber with fixation with non$1 rotatably	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S693	603499	fiber with fixation with non$1 rotatably same rotation	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/04/07 09:33

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S696	2	"20150219436"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S697	37828	rotation with shaft with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S698	69	S697 and (fiber with rotatable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S699	415	S697 and (fiber with rotat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S700	2	S699 and (actuator with slide with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S701	12	S699 and (actuator with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S702	0	S699 and (actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S703	64	(actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S705	140	direct with actuator with fiber	US-PGPUB;	OR	OFF	2018/04/07

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			09:33
S706	2	S705 and (rotation with shaft with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S707	4	S705 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S708	97404	rotation with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S709	86	S708 and (motor near3 hollow with back)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S711	2	S709 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S712	760	S708 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S714	792	direct with actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S716	104285	actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/04/07 09:33

			IBM_TDB			
S717	219	S716 and (fiber with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S718	0	S717 and (simultaneously with lightZZ)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S721	1	S717 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S722	4344	S716 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S724	13922933	G 01B 9/02 G 01D 5/266 G 01D 5/38, G 01B 11/002, G 01B 11/026	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S725	1524	S724 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S727	1902	356/300.CCLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S728	90928	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S729	143	(("ISLAM") near3 ("Mohammed")).INV.	US-PGPUB	OR	OFF	2018/04/07 09:33
S730	4	S728 AND S729 AND (blood pulp)	US-PGPUB;	OR	OFF	2018/04/07

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			09:33
S731	34	S729 AND (blood pulp)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S732	14	S729 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S733	68	(semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S734	27	S733 and (broadened with spectrum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S735	27	S733 and (broadened with spectrum and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S736	33	S733 and (spectroscopy and infrared)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S737	0	S736 and ((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S738	0	((detect$3 sensor receiver) with hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/04/07 09:33

			IBM_TDB			
S739	38	((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S740	0	S739 and (fiber with fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S741	0	S739 and (fiber and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S742	0	nonlinear with element with nanometer with effect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S743	215	interface with sample with spectroscopy	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S745	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S746	6919	("5180378" | "5458122" | "5617871" | "6246896" | "6340806" | "6443890" | "6611643" | "6847336" | "7167300" | "20060223032" | "20100331637" | "4063106" | "4275266" | "4462080" | "4728974" | "5142930" | "5323404" | "5950629" | "6278975" | "6350261" | "6442430" | "6453201" | "6534012" | "6788965" | "6816241" | "8198589" | "7356364" | "20020082612" | "20020115914" | "20020178003" | "20080105665" | "5696778" | "5718234" | "6043927" | "6281471" | "6603910" | "6659947" | "6802811" | "4704696" | "4776016" | "4958910" | "5086401" | "5267323" | "6115673" | "6200309" | "6246707" | "6301273" | "6337462" | "6567431" | "6587702" | "6625180" | "6631025" | "6659999" |	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33

		"6760148" | "7133710" | "7433116" | "20110282167" | "20060245461" | "20060268393" | "5084880" | "5687734" | "20030022126" | "4158750" | "4516207" | "5303148" | "5313306" | "5792204" | "5970457" | "6340806" | "6436107" | "6512936" | "7010336" | "7299080" | "7519406" | "7697966" | "7787924" | "8145286" | "20030152307" | "9207121")				
S747	0	S746 and ((detect$3 sensor receiver) and hydro adj carbon with bond)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S748	0	S746 and ((rotation rotating) with fiber with (prism mirror))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S749	12	S746 AND (semiconductor and fiber and short adj wave and fused with silica)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S752	4	"14717896"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S755	1	"2015320318"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S757	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S758	233	S757 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S759	89	S758 and (interferen$3 and fiber)	US-PGPUB; USPAT;	OR	OFF	2018/04/07 09:33

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S761	6230	catheter and probe and fiber and interference	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S762	2496	S761 and ((target object sample) with probe)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S763	2052	S761 and ((target object sample) with probe and human)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S764	293	S763 and ((detect$3 sensor) and rotat$3 and displac$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S766	0	S765 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S768	1	"20150338580"	DERWENT	OR	OFF	2018/04/07 09:33
S769	1	"20100105980"	DERWENT	OR	OFF	2018/04/07 09:33
S771	283	optical adj imaging adj probe	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S774	5006	optical with inner with measur$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S775	346	S774 and (fiber with tube)	US-PGPUB; USPAT;	OR	OFF	2018/04/07 09:33

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S776	50	S775 and ((prism mirror) with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S778	130	NAMIKI adj SEIMITSU adj HOUSEKI adj KABUSHIKI adj KAISHA	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S779	3	S778 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S782	2	"20110164255"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S784	1844	displace$4 with detect$3 with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S785	3	S784 and (probe with imaging)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S787	2864	detect$3 with measur$3 with amount with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S790	53065	(detect$3 sensor) with measur$3 with rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33

S792	1700	(detect$3 sensor) with measur$3 with rotation near3 amount	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S794	2560	advantage near3 rotation with detect$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S795	0	S794 and (optical with inner with measur$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S797	1464	rotation with shaft and (dynamic with pressure with bearing same groove)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S799	3418	dynamic adj pressure with bearing with dynamic with groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S801	1470	dynamic adj pressure with bearing with dynamic near2 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S804	1227457	rotation with shaft	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S805	23705	rotation with shaft near3 hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S807	1933451	fiber with fixation with non$1 rotatably	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2018/04/07 09:33

			DERWENT; IBM_TDB			
S808	603499	fiber with fixation with non$1 rotatably same rotation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S811	2	"20150219436"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S812	37828	rotation with shaft with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S813	69	S812 and (fiber with rotatable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S814	415	S812 and (fiber with rotat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S815	2	S814 and (actuator with slide with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S816	12	S814 and (actuator with axis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S817	0	S814 and (actuator with press with fiber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S818	64	(actuator with press with fiber)	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/04/07 09:33

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S820	140	direct with actuator with fiber	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S821	2	S820 and (rotation with shaft with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S822	4	S820 and (rotation with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S823	97404	rotation with hollow	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S824	86	S823 and (motor near3 hollow with back)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S826	2	S824 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S827	760	S823 and (fiber and (mirror prism))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S829	792	direct with actuator with slid$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S831	104285	actuator with slid$3	US-PGPUB;	OR	OFF	2018/04/07

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			09:33
S832	219	S831 and (fiber with hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S833	0	S832 and (simultaneously with lightZZ)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S836	1	S832 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33
S837	4344	S831 and (slide with axial)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/07 09:33

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L19	0	((detect$3 sensor receiver) and hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:26
L20	7386	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:26
L21	0	L20 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:26
L22	10	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:26
L23	494	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:26
L24	10	L23 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:26
L25	0	L20 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:26

L26	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:27
L27	0	nonlinear with element same nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:27
L28	0	((detect$3 sensor receiver) and hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:27
L29	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:27
L30	10	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:38
L31	7386	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:38
L32	0	L31 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2019/08/14 12:38
S110	3495	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:54
S111	91	S110 AND (blood pulp).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:54
S112	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:54
S113	0	S110 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:55
S114	407	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:55
S115	2424	(spectroscopy and infrared).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:55
S116	2	S110 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:55
S117	0	S110 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:55
S118	0	nonlinear with element same nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:56
S119	0	((detect$3 sensor receiver) and hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:56
S120	6	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:56
S121	407	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:57

S122	3	S110 and (fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:57
S123	0	S121 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:57
S124	6	S121 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:57
S125	6	S121 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2016/07/02 11:57
S245	4892	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S246	149	S245 AND (blood pulp).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S247	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S248	0	S245 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S249	447	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S250	2725	(spectroscopy and infrared).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S251	5	S245 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S252	0	S245 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S253	0	nonlinear with element same nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S254	0	((detect$3 sensor receiver) and hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S255	9	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S256	447	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S257	9	S245 and (fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S258	0	S256 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S259	9	S256 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48

S260	9	S256 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2017/10/30 15:48
S491	5428	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S492	177	S491 AND (blood pulp).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S493	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S494	0	S491 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S495	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S496	2836	(spectroscopy and infrared).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S497	5	S491 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S498	0	S491 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S499	0	nonlinear with element same nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S500	0	((detect$3 sensor receiver) and hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S501	9	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S502	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S503	10	S491 and (fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S504	0	S502 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S505	9	S502 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S506	9	S502 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S507	5428	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S508	177	S507 AND (blood pulp).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14

S509	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S510	0	S507 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S511	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S512	2836	(spectroscopy and infrared).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S513	5	S507 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S514	0	S507 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S515	0	nonlinear with element same nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S516	0	((detect$3 sensor receiver) and hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S517	9	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S518	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S519	10	S507 and (fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S520	0	S518 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S521	9	S518 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S522	9	S518 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/06 15:14
S839	5428	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S840	177	S839 AND (blood pulp).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S841	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S842	0	S839 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S843	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33

S844	2836	(spectroscopy and infrared).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S845	5	S839 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S846	0	S839 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S847	0	nonlinear with element same nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S848	0	((detect$3 sensor receiver) and hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S849	9	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S850	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S851	10	S839 and (fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S852	0	S850 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S853	9	S850 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S855	5428	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S856	177	S855 AND (blood pulp).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S857	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S858	0	S855 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S859	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S860	2836	(spectroscopy and infrared).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S861	5	S855 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S862	0	S855 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S863	0	nonlinear with element same nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33

S864	0	((detect$3 sensor receiver) and hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S865	9	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S866	460	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S867	10	S855 and (fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S868	0	S866 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S869	9	S866 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/04/07 09:33
S871	475	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:03
S872	10	S871 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:03
S873	475	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:03
S874	0	nonlinear with element same nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:03
S875	475	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:03
S876	475	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:03
S877	0	S876 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:03
S878	6002	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:03
S879	2950	(spectroscopy and infrared).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:03
S880	6002	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S881	0	S880 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S882	6002	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S883	6002	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04

S884	5	S883 AND (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S885	0	S880 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S886	10	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S887	475	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S888	10	S887 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S889	10	S871 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S890	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 13:04
S891	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S892	475	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S893	0	S892 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S894	0	nonlinear with element same nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S895	6002	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S896	13	S895 and (fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S897	0	nonlinear with element with nanometer with effect.clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S898	6002	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S899	0	S898 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S900	475	(fiber with fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S901	10	S900 and (semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37
S902	10	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:37

S903	10	(semiconductor and fiber and short adj wave and fused with silica).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:38
S904	0	S898 and ((detect$3 sensor receiver) with hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:38
S905	6002	G01J3/02 G01J3/28 G01J3/42, G01N21/31, G01N21/552	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:38
S906	0	((detect$3 sensor receiver) and hydro adj carbon with bond).clm.	US-PGPUB; USPAT	OR	OFF	2018/09/18 14:38

8/ 14/ 2019 12:39:06 PM
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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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	1	20060058683	A1	2006-03-16	Chance	
	2	20160327476	A1	2016-11-10	ISLAM	

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	1	101849821	CN	B	2013-07-04	Univ Huazhong Science Tech		
	2	2012135952	WO	A1	2012-10-11	The Governing Council Of The University Of Toronto		

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.M.R/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Extended European Search Report for European Application No. 17156625.0 dated March 20, 2017	

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Examiner Signature	/MD M RAHMAN/	Date Considered	08/13/2019

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[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

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See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	4972331		1990-11-20	Chance	
	2	5774213	A	1998-06-30	Trebino et al.	
	3	5855550	A	1999-01-05	Lai et al.	
	4	6044283	A	2000-03-28	Fein et al.	
	5	6898451	B2	2005-05-24	Wuori	
	6	7278966	B2	2007-10-09	Hjelt et al.	
	7	9651533	B2	2017-05-16	Islam	
	8	9757040	B2	2017-09-12	Islam	

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	9	9861286	B1	2018-01-09	Islam	
	10	9885698	B2	2018-02-06	Islam	

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	1	20120041767	A1	2012-02-16	Hoffman et al.	

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	1	Declaration of Brian W. Anthony, PhD regarding USPN 9,651,533 filed in IPR2019-00913 & IPR2019-00916 (April 10, 2019)	
	2	Declaration of Brian W. Anthony, PhD regarding USPN 9,757,040 filed in IPR2019-00910 & IPR2019-00917 (April 10, 2019)	

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	Attorney Docket Number	OMNI 0101 PUSA5

	3	Declaration of Brian W. Anthony, PhD regarding USPN 9,861,286 filed in IPR2019-00911 & IPR2019-00914 (April 10, 2019)	
	4	Declaration of Brian W. Anthony, PhD regarding USPN 9,885,698 filed in IPR2019-00912 & IPR2019-00915 (April 10, 2019)	
	5	Proof of Service of Summons in Omni MedSci, Inc. v. Apple Inc., No. 2:18-cv-134 (E.D. Tex.) (Dkt. #12) (April 13, 2018)	
	6	U.S. Provisional Application No. 61/747,487 filed December 31, 2012	
	7	U.S. Provisional Application No. 61/747,472 filed December 31, 2012	
	8	U.S. Provisional Application No. 61/747,477 filed December 31, 2012	
	9	U.S. Provisional Application No. 61/754,698 filed January 21, 2013	
	10	JOSEPH D. BRONZINO; "The Biomedical Engineering Handbook", (1995)	
	11	M. KRANTZ, ET AL., The mobile fitness coach: Towards individualized skill assessment using personalized mobile devices, Pervasive and Mobile Computing (June 2012)	
	12	S. PATEL, ET AL., A review of wearable sensors and systems with application rehabilitation, Journal of Neuroengineering & Rehabilitation 2012 9:21	
	13	ScienceDirect Report on M. KRANTZ, ET AL., The mobile fitness coach: Towards individualized skill assessment using personalized mobile devices, Pervasive and Mobile Computing (2012), available at https://www.sciencedirect.com/science/article/pii/S1574119212000673?via%3Dihub (2018 Elsevier B.V.)	

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	14	RAUF ADIL, "The Usage of Tablets in the HealthCare Industry," available at https://www.healthcareitnews.com/blog/usage-tablets-healthcare-industry (Aug. 2, 2012)	
	15	A. OMRE, Bluetooth Low Energy: Wireless Connectivity for Medical Monitoring, Journal of Diabetes Science & Technology , Vol. 4, Issue 2 (March 2010)	
	16	"Absorption Coefficient and Penetration Depth," The Science of Solar, available at https://photon.libretexts.org/The_Science_of_Solar/Solar_Basics/C._Semiconductors_and_Solar_Interactions/III._Absorption_of_Light_and_Generation/1._Absorption_Coefficient_and_Penetration_Depth (Last Updated Nov. 3, 2018)	
	17	F. BUTTUSSI, ET AL., MOPET: A context-aware and user-adaptive wearable system for fitness training, Artificial Intelligence in Medicine (2008) 42, 153-163	
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	20	M. SWAN, Sensor Mania! The Internet of Things, Wearable Computing, Objective Metrics, and the Quantified Self 2.0, Journal of Sensor and Actuator Networks (2012)	
	21	Excerpts from Merriam-Webster's Collegiate Dictionary Eleventh Edition (2011)	
	22	T. LISTER ET AL., Optical properties of human skin, Journal of Biomedical Optics (Sept. 2012)	
	23	A. BASHKATOV ET AL., Optical properties of human skin, subcutaneous and mucous tissues in the wavelength range from 400 to 2000 nm, Journal of Physics D: Applied Physics 38 (2005) 2543-2555	
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	25	BAROLET, DANIEL, Light-Emitting Diodes (LEDs) in Dermatology, Seminars in Cutaneous Medicine and Surgery 27:227-238 (2008)	
	26	Omni MedSci Inc.'s Opening Claim Construction Brief filed in Case No. 2:18-cv-134-RWS (Dkt. #85) (Dec. 20, 2018)	
	27	Apple Inc.'s Preliminary Claim Constructions and Extrinsic Evidence Pursuant to Patent Local Rule 4-2 served in Case No. 2:18-cv-134-RWS (Nov. 1, 2018)	
	28	Excerpts from the American Heritage Dictionary, 5th Edition (July 2012)	
	29	Curriculum Vitae of Brian W. Anthony, PhD (Nov. 18, 2018)	
	30	Amended Joint Claim Construction and Prehearing Statement filed in Case No. 2:18-cv-134-RWS (Dkt. #102) (Jan. 11, 2019)	
	31	Excerpt from Claim Construction Markman Hearing Transcript filed in Case No. 2:18-cv-134-RWS (Feb. 6, 2019) Vol. 1, pgs. 1, 2, 21, 22	
	32	Dr. MOHAMMED ISLAM, Faculty Profile, University of Michigan, College of Engineering (available at https://islam.engin.umich.edu) (2019 The Regents of the University of Michigan)	
	33	Technology Transfer Policy, Office of Technology Transfer - University of Michigan (available at https://techtransfer.umich.edu/for-inventors/policies/technology-transfer-policy/) (revision effective June 1, 2009)	
	34	The Bylaws of the University of Michigan Board of Regents, (available at http://www.regents.umich.edu/bylaws/bylawsrevised_09-18.pdf) (last updated Sept. 20, 2018)	
	35	District Court Preliminary Claim Constructions in Case No. 2:18-cv-134-RWS (received February 6, 2019) from Court at Markman hearing	

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	36	File History for U.S. Patent No. 9,651,533 issued May 16, 2017	
	37	File History for U.S. Patent No. 9,757,040 issued September 12, 2017	
	38	File History for U.S. Patent No. 9,861,286 issued January 9, 2018	
	39	File History for U.S. Patent No. 9,885,698 issued February 6, 2018	

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Examiner Signature	/MD M RAHMAN/	Date Considered	08/14/2019

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
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Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
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U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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	1	Pan, Yingtian, et al., "Hand-held arthroscopic optical coherence tomography for in vivo high-resolution imaging of articular cartilage", Journal of Biomedical Optics 8(4), October 2003, pages 648-654.	
	2	Xie, Tuqiang, et al., "Endoscopic optical coherence tomography with a modified microelectromechanical systems mirror for detection of bladder cancers", APPLIED OPTICS, Vol. 42, No. 31, November1, 2003, pages 6422-6426.	
	3	Dubois, A., et al., "Three-dimensional cellular-level imaging using full-field optical coherence tomography", Physics in Medicine and Biology, Phys. Med. Biol. 49, 2004, pages 1227-1234.	
	4	Park, Jesung, et al., "Analysis of birefringent image in the retinal nerve fiber layer by polarization sensitive optical coherence tomography", Ophthalmic Technologies XIV, Proceedings of SPIE, Vol. 5314, 2004, pages 188-194.	
	5	Unterhuber, A., et al., "Advances in broad bandwidth light sources for ultrahigh resolution optical coherence tomography", Physics in Medicine and Biology, Phys. Med. Biol. 49, 2004, pages 1235-1246.	
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	30	U.S. Appln. Serial No. 12/206432, "System and Method for Voice Control of Medical Devices," by Mohammed N. Islam, pending (074036.0154) Date filed: September 8, 2008
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	1	5267152	A	1993-11-30	Yang et al.	
	2	7356364	B1	2008-04-08	Bullock et al.	

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	1	20070021670	A1	2007-01-25	Mandelis et al.	
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	1	International Search Report and Written Opinion for International Application No. PCT/US2013/075736 dated April 7, 2014	
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	14	7233816	B2	2007-06-19	BLANK	
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CERTIFICATION STATEMENT

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See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

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A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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Application Number	16506885
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First Named Inventor	Mohammed N. ISLAM
Art Unit	1636
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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	2	5774213	A	1998-06-30	Trebino et al.	
	3	5855550	A	1999-01-05	Lai et al.	
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	7	9651533	B2	2017-05-16	Islam	
	8	9757040	B2	2017-09-12	Islam	

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	9	9861286	B1	2018-01-09	Islam	
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	1	Declaration of Brian W. Anthony, PhD regarding USPN 9,651,533 filed in IPR2019-00913 & IPR2019-00916 (April 10, 2019)	
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	3	Declaration of Brian W. Anthony, PhD regarding USPN 9,861,286 filed in IPR2019-00911 & IPR2019-00914 (April 10, 2019)	
	4	Declaration of Brian W. Anthony, PhD regarding USPN 9,885,698 filed in IPR2019-00912 & IPR2019-00915 (April 10, 2019)	
	5	Proof of Service of Summons in Omni MedSci, Inc. v. Apple Inc., No. 2:18-cv-134 (E.D. Tex.) (Dkt. #12) (April 13, 2018)	
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	25	BAROLET, DANIEL, Light-Emitting Diodes (LEDs) in Dermatology, Seminars in Cutaneous Medicine and Surgery 27:227-238 (2008)	
	26	Omni MedSci Inc.'s Opening Claim Construction Brief filed in Case No. 2:18-cv-134-RWS (Dkt. #85) (Dec. 20, 2018)	
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	29	Curriculum Vitae of Brian W. Anthony, PhD (Nov. 18, 2018)	
	30	Amended Joint Claim Construction and Prehearing Statement filed in Case No. 2:18-cv-134-RWS (Dkt. #102) (Jan. 11, 2019)	
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	34	The Bylaws of the University of Michigan Board of Regents, (available at http://www.regents.umich.edu/bylaws/bylawsrevised_09-18.pdf) (last updated Sept. 20, 2018)	
	35	District Court Preliminary Claim Constructions in Case No. 2:18-cv-134-RWS (received February 6, 2019) from Court at Markman hearing	

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Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-10
Name/Print	David S. Bir	Registration Number	38383

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5084880		1992-01-28	Esterowitz, et al.	
	2	5180378		1993-01-19	Kung, et al.	
	3	5400165		1995-03-21	Gnauck, et al.	
	4	5458122		1995-10-17	Hethuin	
	5	5617871		1997-04-08	Burrows	
	6	5631758		1997-05-20	Knox, et al.	
	7	5687734		1997-11-18	Dempsey, et al.	
	8	5696778		1997-12-09	MacPherson	

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First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

	9	5704351		1998-01-06	Mortara, et al.	
	10	5718234		1998-02-17	Warden, et al.	
	11	5748103		1998-05-05	Flach, et al.	
	12	5855550		1999-01-05	Lai, et al.	
	13	5862803		1999-01-26	Besson, et al.	
	14	5867305		1999-02-02	Waarts, et al.	
	15	5912749		1999-06-15	Harstead, et al.	
	16	5944659		1999-08-31	Flach, et al.	
	17	5957854		1999-09-28	Besson, et al.	
	18	6014249		2000-01-11	Fermann, et al.	
	19	6043927		2000-03-28	Islam	

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	20	6289238		2001-09-11	Besson, et al.	
	21	6333803		2001-12-25	Kurotori, et al.	
	22	6364834		2002-04-02	Reuss, et al.	
	23	6381391		2002-04-30	Islam, et al.	
	24	6402691		2002-06-11	Peddicord, et al.	
	25	6407853		2002-06-18	Samson, et al.	
	26	6441747		2002-08-27	Khair, et al.	
	27	6443890		2002-09-03	Schulze, et al.	
	28	6454705		2002-09-24	Cosentino, et al.	
	29	6480656		2002-11-12	Islam, et al.	
	30	6549702		2003-04-15	Islam, et al.	

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	Examiner Name	
	Attorney Docket Number	OMNI 0101 PUSA5

	31	6603910		2003-08-05	Islam, et al.	
	32	6659947		2003-12-09	Carter, et al.	
	33	6802811		2004-10-12	Slepian	
	34	7167300		2007-01-23	Fermann, et al.	
	35	7209657		2007-04-24	Islam	
	36	7263288		2007-08-28	Islam	
	37	7519253		2009-04-14	Islam	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20020013518		2002-01-31	West, Kenneth G. ; et al.	
	2	20020019584		2002-02-14	Schulze, Arthur E. ; et al.	

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First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

	3	20020032468		2002-03-14	Hill, Michael R.S. ; et al.	
	4	20020082612		2002-06-27	Moll, Frederic H. ; et al.	
	5	20020109621		2002-08-15	Khair, Mohammad ; et al.	
	6	20020115914		2002-08-22	Russ, Tomas	
	7	20020178003		2002-11-28	Gehrke, James K. ; et al.	
	8	20040174914		2004-09-09	Fukatsu, Susumu	
	9	20040240037		2004-12-02	Harter, Donald J.	
	10	20050111500		2005-05-26	Harter, Donald J. ; et al.	
	11	20060245461		2006-11-02	Islam; Mohammed N.	
	12	20060268393		2006-11-30	Islam; Mohammed N.	
	13	20070078348		2007-04-05	Holman; Hoi-Ying N.	

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	Filing Date	
	First Named Inventor	Mohammed N. ISLAM
	Art Unit	
	Examiner Name	
	Attorney Docket Number	OMNI 0101 PUSA5

	14	20090028193		2009-01-29	Islam; Mohammed N.	
	15	20090204110		2009-08-13	Islam; Mohammed N.	

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FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	200189362	WO		2001-11-29	West Kenneth G et al.		
	2	200227640	WO		2002-04-04	Whittington Charles Lynn et al.		
	3	200228123	WO		2002-04-04	Whittington Charles Lynn		

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		

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EXAMINER SIGNATURE

Examiner Signature	/MD M RAHMAN/	Date Considered	08/14/2019

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ None

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6246896	B1	2001-06-12	DUMOULIN	
	2	6285897	B1	2001-09-04	KILCOYNE	
	3	6847336	B1	2005-01-25	LEMELSON	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
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Filing Date	
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Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	4063106		1977-12-13	Ashkin, et al.	
	2	4158750		1979-06-19	Sakoe, et al.	
	3	4221997		1980-09-09	Flemming	
	4	4275266		1981-06-23	Lasar	
	5	4374618		1983-02-22	Howard	
	6	4403605		1983-09-13	Tanikawa	
	7	4462080		1984-07-24	Johnstone, et al.	
	8	4516207		1985-05-07	Moriyama, et al.	

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Attorney Docket Number	OMNI 0101 PUSA5

	9	4523884		1985-06-18	Clement, et al.	
	10	4605080		1986-08-12	Lemelson	
	11	4641292		1987-02-03	Tunnell, et al.	
	12	4704696		1987-11-03	Reimer, et al.	
	13	4728974		1988-03-01	Nio, et al.	
	14	4762455		1988-08-09	Coughlan, et al.	
	15	4776016		1988-10-04	Hansen	
	16	4958910		1990-09-25	Taylor, et al.	
	17	4989253		1991-01-29	Liang, et al.	
	18	5078140		1992-01-07	Kwoh	
	19	5084880		1992-01-28	Esterowitz, et al.	

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	Examiner Name	
	Attorney Docket Number	OMNI 0101 PUSA5

	20	5086401		1992-02-04	Glassman, et al.	
	21	5134620		1992-07-28	Huber	
	22	5142930		1992-09-01	Allen, et al.	
	23	5180378		1993-01-19	Kung, et al.	
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Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ None

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A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
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PTO/SB/08a (01-10)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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First Named Inventor	Mohammed N. ISLAM
Art Unit	
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Attorney Docket Number	OMNI 0101 PUSA5

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Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Mohammed N. ISLAM
	Art Unit	
	Examiner Name	
	Attorney Docket Number	OMNI 0101 PUSA5

	42	7294105		2007-11-13	ISLAM	
	43	7787503		2010-08-31	WADSWORTH	
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	1	20020013518		2002-01-31	West, Kenneth G. ; et al.	

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	Attorney Docket Number	OMNI 0101 PUSA5

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	1	200189362	WO		2001-11-29	West Kenneth G et al.		
	2	200227640	WO		2002-04-04	Whittington Charles Lynn et al.		
	3	200228123	WO		2002-04-04	Whittington Charles Lynn		
	4	2013012938	WO		2013-01-24	Raskin, et al.		

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	1	ISTEPANIAN, ROBERT H., "The Comparative Performance of Mobile Telemedical Systems based on the IS-54 and GSM Cellular Telephone Standards"; Journal of Telemedicine and Telecare 1999; pp 97-104	
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Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

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See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ None

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A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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Approved for use through 07/31/2012. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
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Attorney Docket Number	OMNI 0101 PUSA5

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☒ A certification statement is not submitted herewith.

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	1	Lee, Ju Han, et al., "Continuous-wave supercontinuum laser based on an erbium-doped fiber ring cavity incorporating a highly nonlinear optical fiber", OPTICS LETTERS, Vol. 30, No. 19, October 1, 2005, pages 2599-2601.	
	2	Genty, G., et al., "Supercontinuum generation in large mode-area microstructured fibers", OPTICS EXPRESS, Vol. 13, No. 21, October 17, 2005, pages 8625-8633.	
	3	Schreiber, T., et al., "Supercontinuum generation by femtosecond single and dual wavelength pumping in photonic crystal fibers with two zero dispersion wavelengths", OPTICS EXPRESS, Vol. 13, No. 23, November 14, 2005, pages 9556-9569.	
	4	Travers, J. C., et al., "Extended blue supercontinuum generation in cascaded holey fibers", OPTICS LETTERS, Vol. 30, No. 23, December 1, 2005, pages 3132-3134.	
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	7	Fedotova, O., et al., "Supercontinuum generation in planar rib waveguides enabled by anomalous dispersion", OPTICS EXPRESS, Vol. 14, No. 4, February 20, 2006, pages 1512-1517.	
	8	Harrington, James A., "Infrared Fiber Optics", OSA Handbook, Vol. III, white paper, to be published by McGraw Hill, Undated, 13 pages	
	9	Aaviksoo, J., et al., "Observation of optical precursors at pulse propagation in GaAs", Physical Review A, Volume 44, Number 9, November 1, 1991, pages R5353-R5356.	
	10	Boppart, Stephen A., et al., "Imaging developing neural morphology using optical coherence tomography", Journal of Neuroscience Methods 70, 1996, pages 65-72.	
	11	Boppart, Stephen A., et al., "Noninvasive assessment of the developing Xenopus cardiovascular system using optical coherence tomography", Prec. Natl. Acad. Sci. USA, Vol. 94, April 1997, pages 4256-4261.	

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	12	Tearney, Guillermo J., et al., "In vivo Endoscopic Optical Biopsy with Optical Coherence Tomography", Science, New Series, Volume 276, June 27, 1997, pages 2037-2039.
	13	de Boer, Johannes F., et al., "Imaging thermally damaged tissue by polarization sensitive optical coherence tomography", OPTICS EXPRESS 212, Vol. 3, No. 6, September 14,1998, pages 212-218.
	14	Roggan, Andre, et al., "Optical Properties of Circulating Human Blood in the Wavelength Range 400-2500 NM", Journal of Biomedical Optics, Vol. 4, No. 1, January 1999, pages 36-46.
	15	de Boer, Johannes F., et al., "Determination of the depth-resolved Stokes parameters of light backscattered from turbid media by use of polarization-sensitive optical coherence tomography", OPTICS LETTERS, Vol. 24, No. 5; March 1, 1999, pages 300-302.
	16	Rollins, Andrew M., et al., "Real-time in vivo imaging of human gastrointestinal ultrastructure by use of endoscopic optical coherence tomography with a novel efficient interferometer design", OPTICS LETTERS, Vol. 24, No. 19, October1,1999, pages 1358-1360.
	17	D'Amico, Anthony V., et al., "Optical Coherence Tomography As A Method For Identifying Benign And Malignant Microscopic Structures In The Prostate Gland", Basic Science, Urology 55 (5), 2000, pages 783-787.
	18	Li, Xingde, et al., "Imaging needle for optical coherence tomography", OPTICS LETTERS, Vol. 25, No. 20, October15, 2000, pages 1520-1522.
	19	Oughstun, Kurt E., "Influence of precursor fields on ultrashort pulse autocorrelation measurements and pulse width evolution", OPTICS EXPRESS, Vol. 8, No. 8, April 9, 2001, pages 481-491.
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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.M.R/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

	23	Seefeldt, Michael, et al., "Compact white-light source with an average output power of 2.4 Wand 900 nm spectral bandwidth", Optics Communications 216, pages 199-202.
	24	Wang, Yimin, et al., "Ultrahigh-resolution optical coherence tomography by broadband continuum generation from a photonic crystal fiber", OPTICS LETTERS, Vol. 28, No. 3, February 1, 2003, pages 182-184.
	25	Bizheva, K, et al., "Compact, broad-bandwidth fiberlaserforsub-2-pm axial resolution optical coherence tomography in the 1300-nm wavelength region," OPTICS LETTERS, Vol. 28, No. 9, May 1, 2003, pages 707-709.

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Examiner Signature	/MD M RAHMAN/	Date Considered	08/14/2019

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Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

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See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ None

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A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16506885
Filing Date	2019-07-09
First Named Inventor	Mohammed N. ISLAM
Art Unit	1636
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6885683		2005-04-26	FERMANN ET AL.	
	2	6281471	B1	2001-08-28	SMART	
	3	6340806		2002-01-22	SMART ET AL.	
	4	6301271	B1	2001-10-09	SANDERS ET AL.	
	5	7294105	B1	2007-11-13	ISLAM	

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	1	20100046067	A1	2010-02-25	FERMANN ET AL.	

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	2	20080105665	A1	2008-05-08	KONDO	
	3	20090156932	A1	2009-06-18	Zharov	

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	1	ISTEPANIAN, ROBERT H., "The Comparative Performance of Mobile Telemedical Systems based on the IS-54 and GSM Cellular Telephone Standards"; Journal of Telemedicine and Telecare 1999; pp 97-104.	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
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Attorney Docket Number	OMNI 0101 PUSA5

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5084880		1992-01-28	Esterowitz, et al.	
	2	5180378		1993-01-19	Kung, et al.	
	3	5400165		1995-03-21	Gnauck, et al.	
	4	5458122		1995-10-17	Hethuin	
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	6	5631758		1997-05-20	Knox, et al.	
	7	5687734		1997-11-18	Dempsey, et al.	
	8	5696778		1997-12-09	MacPherson	

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	9	5704351		1998-01-06	Mortara, et al.	
	10	5718234		1998-02-17	Warden, et al.	
	11	5748103		1998-05-05	Flach, et al.	
	12	5855550		1999-01-05	Lai, et al.	
	13	5862803		1999-01-26	Besson, et al.	
	14	5867305		1999-02-02	Waarts, et al.	
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	17	5957854		1999-09-28	Besson, et al.	
	18	6014249		2000-01-11	Fermann, et al.	
	19	6043927		2000-03-28	Islam	

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	20	6289238		2001-09-11	Besson, et al.	
	21	6333803		2001-12-25	Kurotori, et al.	
	22	6364834		2002-04-02	Reuss, et al.	
	23	6381391		2002-04-30	Islam, et al.	
	24	6402691		2002-06-11	Peddicord, et al.	
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	26	6441747		2002-08-27	Khair, et al.	
	27	6443890		2002-09-03	Schulze, et al.	
	28	6454705		2002-09-24	Cosentino, et al.	
	29	6480656		2002-11-12	Islam, et al.	
	30	6549702		2003-04-15	Islam, et al.	

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	31	6603910		2003-08-05	Islam, et al.	
	32	6659947		2003-12-09	Carter, et al.	
	33	6802811		2004-10-12	Slepian	
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	35	7209657		2007-04-24	Islam	
	36	7263288		2007-08-28	Islam	
	37	7519253		2009-04-14	Islam	
	38	6885683		2005-04-26	FERMANN ET AL.	
	39	6281471		2001-08-28	SMART	
	40	6340806		2002-01-22	SMART ET AL.	
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	42	7294105		2007-11-13	ISLAM	
	43	7787503		2010-08-31	WADSWORTH	
	44	7800818		2010-09-21	MATTSSON	
	45	8000574		2011-08-16	BUCHTER	
	46	6611643		2003-08-26	BIRK	
	47	6246896		2001-06-12	DUMOULIN	
	48	6285897		2001-09-04	KILCOYNE	
	49	6847336		2005-01-25	LEMELSON	
	50	5246004		1993-09-21	Clarke, et al.	
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	1	20020013518		2002-01-31	West, Kenneth G. ; et al.	
	2	20020019584		2002-02-14	Schulze, Arthur E. ; et al.	
	3	20020032468		2002-03-14	Hill, Michael R.S. ; et al.	
	4	20020082612		2002-06-27	Moll, Frederic H. ; et al.	
	5	20020109621		2002-08-15	Khair, Mohammad ; et al.	
	6	20020115914		2002-08-22	Russ, Tomas	
	7	20020178003		2002-11-28	Gehrke, James K. ; et al.	
	8	20040174914		2004-09-09	Fukatsu, Susumu	
	9	20040240037		2004-12-02	Harter, Donald J.	
	10	20050111500		2005-05-26	Harter, Donald J. ; et al.	

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	11	20060245461		2006-11-02	Islam; Mohammed N.	
	12	20060268393		2006-11-30	Islam; Mohammed N.	
	13	20070078348		2007-04-05	Holman; Hoi-Ying N.	
	14	20090028193		2009-01-29	Islam; Mohammed N.	
	15	20090204110		2009-08-13	Islam; Mohammed N.	
	16	20100046067		2010-02-25	FERMANN ET AL.	
	17	20080105665		2008-05-08	KONDO	
	18	20130274569		2013-10-17	Islam	

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	1	200189362	WO		2001-11-29	West Kenneth G et al.		

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	2	200227640	WO		2002-04-04	Whittington Charles Lynn et al.		
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	3	SUN, Y., C.F. Booker, S. Kumari, R.N. Day, M. Davidson, A. Periasamy, "Characterization of an orange acceptor fluorescent protein for sensitized spectral fluorescence resonant energy transfer microscopy using a white-light laser," Journal of Biomedical Optics, Vol. 14, no. 5, paper 054009 (2009).	
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Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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	1	LI et al, A Wireless Reflective Pulse Oximeter with Digital Baseline Control for Unfiltered Photoplethysmograms, (June 2012) IEEE Transactions on Biomedical Circuits and Systems, Vol. 6, No. 3, 10 pages.
	2	HUMPHREYS et al., Noncontact Simultaneous Dual Wavelength Photoplethysmography: A Further Step Toward Noncontact Pulse Oximetry, (2007) Review of Scientific Instruments 78, 044304, American Institute of Physics, 6 pages.
	3	MENDELSON et al., A Wearable Reflectance Pulse Oximeter for Remote Physiological Monitoring, (Aug./Sept. 2006) Proceedings of the 28th IEEE EMBS Annual International Conference New York City, NY, 4 pages.
	4	UNITED STATES DISTRICT COURT EASTERN DISTRICT OF TEXAS MARSHALL DIVISION; Omni Medsci, Inc. vs. Apple Inc.; Civil Action No. 2:18-cv-00134 Jury Trial Demanded; Defendant's Invalidity Contentions; August 28, 2018; 33 pps

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See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

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SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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Filing Date	
First Named Inventor	Mohammed N. ISLAM
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Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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	1	Islam, M. N., et al., "Broad bandwidths from frequency-shifting solitons in fibers", OPTICS LETTERS, Vol. 14, No. 7, April 1, 1989, pages 370-372.	
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	12	Iatridis, James C., et al., "Is the Nucleus Pulposus a Solid or a Fluid? Mechanical Behaviors of the Nucleus Pulposus of the Human Intervertebral Disc", Spine, Volume 21(10), May 15, 1996, pages 1174-1184.
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	23	Urban, J. P. G., et al., "The Nucleus of the Intervertebral Disc from Development to Degeneration" Amer. Zool., Volume 40, 2000, pages 53-61.
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	34	Harbold, J. M., et al., "Highly nonlinear As-S-Se glasses for all-optical switching", OPTICS LETTERS, Vol. 27, No. 2, January 15, 2002, pages 119-121.	
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	45	Faralli, S., et al., "Impact of Double Rayleigh Scattering Noise in Distributed Higher Order Raman Pumping Schemes", IEEE Photonics Technology Letters, Vol. 15, No. 6, June 2003, pages 804-806.
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	50	Thongtrangan, Issada, et al., "Minimally invasive spinal surgery: a historical perspective", Neurosurg. Focus, Volume 16, Article 13, January 2004, pages 1-10.

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Signature	/David S. Bir/	Date (YYYY-MM-DD)	2019-07-08
Name/Print	David S. Bir	Registration Number	38383

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.M.R/

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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First Named Inventor	Mohammed N. ISLAM
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Attorney Docket Number	OMNI 0101 PUSA5

	1	LI et al, A Wireless Reflective Pulse Oximeter with Digital Baseline Control for Unfiltered Photoplethysmograms, (June 2012) IEEE Transactions on Biomedical Circuits and Systems, Vol. 6, No. 3, 10 pages.	
	2	HUMPHREYS et al., Noncontact Simultaneous Dual Wavelength Photoplethysmography: A Further Step Toward Noncontact Pulse Oximetry, (2007) Review of Scientific Instruments 78, 044304, American Institute of Physics, 6 pages.	
	3	MENDELSON et al., A Wearable Reflectance Pulse Oximeter for Remote Physiological Monitoring, (Aug./Sept. 2006) Proceedings of the 28th IEEE EMBS Annual International Conference New York City, NY, 4 pages.	
	4	UNITED STATES DISTRICT COURT EASTERN DISTRICT OF TEXAS MARSHALL DIVISION; Omni Medsci, Inc. vs. Apple Inc.; Civil Action No. 2:18-cv-00134 Jury Trial Demanded; Defendant's Invalidity Contentions; August 28, 2018; 33 pps	
	5	VALERY V. TUCHIN ET AL.; Finger Tissue Model and Blood Perfused Skin Tissue Phantom; Proc. of SPIE Vol. 7898; 2011; pps. 1-11	
	6	ZENZO MIWA ET AL.; Pulpal Blood Flow in Vital and Nonvital Young Permanent Teeth Measured by Transmitted-Light Photoplethysmography: A Pilot Study; Pediatric Dentistry 2002; pps. 1-5	

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Examiner Signature	/MD M RAHMAN/	Date Considered	08/13/2019

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[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

CERTIFICATION STATEMENT

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That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
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Application Number	16/506,885 - GAU: 2886
Filing Date	
First Named Inventor	Mohammed N. ISLAM
Art Unit	
Examiner Name	
Attorney Docket Number	OMNI 0101 PUSA5

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5246004		1993-09-21	Clarke, et al.	
	2	8472108		2013-06-25	Islam	
	3	8180422	B2	2012-05-15	Rebec	

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	1	20130274569		2013-10-17	Islam	

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	1	102010012987	DE	A1	2010-10-07	FRAUNHOFER GES FORSCHUNG		

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	2	2005013843	WO	A2	2005-02-17	The Regents of the University of California		
	3	2007061772	WO	A2	2007-05-31	OMNI SCIENCES, INC.		
	4	2009130464	WO	A1	2009-10-29	UNIVERSITY OF MANCHESTER		

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	1	Ooi ET, Zhang XQ, Chen JH, Soh PH, Ng K, Yeo JH, "Non-invasive glucose measurement using multiple laser diodes," Optical Diagnostic and Sensing VII, edited by Gerard L. Cote, Alexander V. Priezzhev, Proc. of SPIE Vol. 6445, 64450K , (2007).	
	2	Schulz, I., J. Putzger, A. Niklas, M. Brandt, A. Jager, A. Hardt, S. Knorzer, K.A. Hiller, S. Loffler, G. Schmalz, S.N. Danilov, S. Giglberger, M. Hirmer, S.D. Ganichev, G. Monkman, "PPG signal acquisition and analysis on in vitro tooth model for dental pulp vitality assessment," ARC Submission 16, (2012).	
	3	Drexler, C., Hirmer, M., Danilov, S., Giglberger, S., Putzger, J., Niklas, A., Jager, A., Hiller, K., Loffler, S., Schmalz, G., Redlich, B., Schulz, I., Monkman, G., Ganichev, S. "Infrared spectroscopy for clinical diagnosis of dental pulp vitality." Infrared, Millimeter, and Terahertz Waves (IRMMW-THz), 2012 37th International Conference on. IEEE (2012).	
	4	Hirmer, Marion, Danilov, Sergey, Giglberger, Stephan, Putzger, Jurgen, Niklas, Andreas, Jager, Andreas, Hiller, Karl-Anton, Loffler, Susanne, Schmalz, Gottfried, Redlich, Britta, Schulz, Irene, Monkman, Gareth, Ganichev, Sergey. "Spectroscopic Study of Human Teeth and Blood from Visible to Terahertz Frequencies for Clinical Diagnosis of Dental Pulp Vitality." Journal of Infrared, Millimeter, and Terahertz Waves 33.3 (2012): 366-375.	
	5	Na, J, J.H. Baek, S.Y. Ryu, C. Lee, B.H. Lee, "Tomographic imaging of incipient dental-caries using optical coherence tomography and comparison with various modalities," Optical Review, vol. 16, no. 4, pp. 426-431 (2009).	
	6	VINAY V. ALEXANDER ET AL.; Modulation Instability High Power All-Fiber Supercontinuum Lasers And Their Applications; Optical Fiber Technology 18; 2012; pages 349-374	

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	7	ROBERT S. JONES ET AL.; Near-Infrared Transillumination At 1310-nm For The Imaging Of Early Dental Decay; Volume 11; No. 18; Optics Express 2259; September 8, 2003	
	8	Extended European Search Report for European Application No. 13867874.3 dated July 15, 2016	
	9	Extended European Search Report for European Application No. 13867892.5 dated July 22, 2016	

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Examiner Signature	/MD M RAHMAN/	Date Considered	08/14/2019

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

MOHAMMED N. ISLAM

Group Art Unit: 2886

Examiner: RAHMAN, MD M.

Serial No.: 16/506885

Filed: July 09, 2019

For: SEMICONDUCTOR DIODES-BASED PHYSIOLOGICAL MEASUREMENT DEVICE WITH IMPROVED SIGNAL-TO-NOISE RATIO

Attorney Docket No.: OMNI0101PUSA5

AMENDMENT AFTER ALLOWANCE
UNDER 37 C.F.R. § 1.312

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U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Please amend the above-identified application as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A system for measuring one or more physiological parameters and for use with a smart phone or tablet, the system comprising:

a wearable device adapted to be placed on a wrist or an ear of a user, including a light source comprising a plurality of semiconductor sources that are light emitting diodes, each of the light emitting diodes configured to generate an output optical light having one or more optical wavelengths;

the wearable device comprising one or more lenses configured to receive a portion of at least one of the output optical lights and to direct ~~an output~~ a lens output light to tissue;

the wearable device further comprising a detection system configured to receive at least a portion of the ~~output~~ lens output light reflected from the tissue and to generate an output signal having a signal-to-noise ratio, wherein the detection system is configured to be synchronized to the light source;

wherein the detection system comprises a plurality of spatially separated detectors, and wherein at least one analog to digital converter is coupled to at least one of the spatially separated detectors;

wherein a detector output from the at least one of the plurality of spatially separated detectors is coupled to an amplifier having a gain configured to improve detection sensitivity;

the smart phone or tablet comprising a wireless receiver, a wireless transmitter, a display, a speaker, a voice input module, one or more buttons or knobs, a microprocessor and a touch screen, the smart phone or tablet configured to receive and process at least a portion of the output signal, wherein the smart phone or tablet is configured to store and display the processed output signal, and wherein at least a portion of the processed output signal is configured to be transmitted over a wireless transmission link;

a cloud configured to receive over the wireless transmission link an output status comprising the at least a portion of the processed output signal, to process the received output status to generate processed data, and to store the processed data;

wherein the output signal is indicative of one or more of the physiological parameters, and the cloud is configured to store a history of at least a portion of the one or more physiological parameters over a specified period of time;

the wearable device configured to increase the signal-to-noise ratio by increasing light intensity of at least one of the plurality of semiconductor sources from an initial light intensity and by increasing a pulse rate of at least one of the plurality of semiconductor sources from an initial pulse rate; and

the detection system further configured to:

generate a first signal responsive to light received while the light emitting diodes are off,

generate a second signal responsive to light received while at least one of the light emitting diodes is on, and

increase the signal-to-noise ratio by comparing the first signal and the second signal.

2. (Original) The system of Claim 1, wherein the wearable device is configured to use artificial intelligence in making decisions associated with at least a portion of the output signal.

3. (Original) The system of Claim 2, wherein the wearable device is at least in part configured to identify an object, and to compare a property of at least some of the output signal to a threshold.

4. (Currently Amended) The system of Claim 3, wherein the wearable device is configured to perform pattern identification or classification based on at least a part of the output signal~~, or the wearable device is configured to apply regression signal processing methodologies to at least a part of the output signal~~.

5. (Original) The system of Claim 4, wherein at least one of the spatially separated detectors is located at a first distance from at least one of the light emitting diodes and at least another of the spatially separated detectors is located at a second distance from the at least one of the light emitting diodes, and the at least one of the spatially separated detectors is configured to generate a third signal responsive to light from the at least one light emitting diode and the at least another of the spatially separated detectors is configured to generate a fourth signal responsive to the light from the at least one of the light emitting diodes; and

wherein at least one of the spatially separated detectors is located at a third distance from a first one of the light emitting diodes and at a fourth distance from a second one of the light emitting diodes, and is configured to generate a fifth signal responsive to light from the first light emitting diode and a sixth signal responsive to light from the second light emitting diode, and wherein the first distance is different from the second distance, and the third distance is different from the fourth distance.

6. (Currently Amended) The system of Claim 5, wherein the wearable device further comprises a reflective surface positioned to reflect at least a portion of the ~~output~~ lens output light reflected from the tissue.

7. (Currently Amended) A system for measuring one or more physiological parameters and for use with a smart phone or tablet, the system comprising:

a wearable device adapted to be placed on a wrist or an ear of a user, and including a light source comprising a plurality of semiconductor sources, each of the semiconductor sources configured to generate an output light having one or more optical wavelengths;

the wearable device comprising one or more lenses configured to receive a portion of at least one of the output lights and to deliver ~~an output~~ a lens output light to tissue;

the wearable device further comprising a detection system configured to receive at least a portion of the ~~output~~ lens output light reflected from the tissue and to generate an output signal having a signal-to-noise ratio, wherein the detection system is configured to be synchronized to the light source;

wherein the detection system comprises a plurality of spatially separated detectors, and wherein at least one analog to digital converter is coupled to at least one of the spatially separated detectors;

the smart phone or tablet comprising a wireless receiver, a wireless transmitter, a display, a speaker, a voice input module, one or more buttons or knobs, a microprocessor and a touch screen, the smart phone or tablet configured to receive and process at least a portion of the output signal, wherein the smart phone or tablet is configured to store and display the processed output signal, and wherein at least a portion of the processed output signal is configured to be transmitted over a wireless transmission link;

a cloud configured to receive over the wireless transmission link an output status comprising the at least a portion of the processed output signal, to process the received output status to generate processed data, and to store the processed data;

wherein the output signal is indicative of one or more of the physiological parameters;

the wearable device configured to increase the signal-to-noise ratio by increasing light intensity of at least one of the semiconductor sources from an initial light intensity and by increasing a pulse rate of at least one of the semiconductor sources from an initial pulse rate; and

the detection system further configured to:

generate a first signal responsive to light received while the semiconductor sources are off,

generate a second signal responsive to light received while at least one of the semiconductor sources is on, and

increase the signal-to-noise ratio by comparing the first signal and the second signal.

8. (Original) The system of Claim 7, wherein the wearable device is at least in part configured to identify an object, and a property of at least some of the output signal is compared by at least one of the wearable device, the smart phone or tablet to a threshold.

9. (Original) The system of Claim 8, wherein a detector output from at least one of the plurality of spatially separated detectors is coupled to an amplifier having a gain configured to improve detection sensitivity.

10. (Original) The system of Claim 9, wherein the wearable device is configured to use artificial intelligence to process at least a portion of the output signal.

11. (Currently Amended) The system of Claim 10, wherein the artificial intelligence comprises pattern identification or classification ~~or regression signal processing methodologies~~.

12. (Currently Amended) The system of Claim 10, wherein the wearable device is configured to perform pattern identification or classification based on at least a part of the output signal~~, or the wearable device is configured to apply regression signal processing methodologies to at least a part of the output signal~~.

13. (Original) The system of Claim 12, wherein at least one of the spatially separated detectors is located at a first distance from at least one of the light emitting diodes and at least another of the spatially separated detectors is located at a second distance from the at least one of the light emitting diodes, and the at least one of the spatially separated detectors is configured to generate a third signal responsive to light from the at least one light emitting diode and the at least another of the spatially separated detectors is configured to generate a fourth signal responsive to the light from the at least one of the light emitting diodes; and

wherein at least one of the spatially separated detectors is located at a third distance from a first one of the light emitting diodes and at a fourth distance from a second one of the light emitting diodes, and is configured to generate a fifth signal responsive to light from the first light emitting diode and a sixth signal responsive to light from the second light emitting diode, and wherein the first distance is different from the second distance, and the third distance is different from the fourth distance.

14. (Currently Amended) The system of Claim 13, wherein the wearable device further comprises a reflective surface positioned to reflect at least a portion of the ~~output~~ lens output light reflected from the tissue.

15. (Currently Amended) A system for measuring one or more physiological parameters and for use with a smart phone or tablet, the system comprising:

a wearable device adapted to be placed on a wrist or an ear of a user, including a light source comprising a plurality of semiconductor sources that are light emitting diodes, each of the light emitting diodes configured to generate an output optical light having one or more optical wavelengths;

the wearable device comprising one or more lenses configured to receive a portion of at least some of the output optical light and to deliver ~~an output~~ a lens output light to tissue;

the wearable device further comprising a detection system configured to receive at least a portion of the ~~output~~ lens output light reflected from the tissue and to generate an output signal having a signal-to-noise ratio, wherein the detection system is configured to be synchronized to the light source;

wherein the detection system comprises a plurality of spatially separated detectors, and wherein at least one analog to digital converter is coupled to at least one of the spatially separated detectors;

the smart phone or tablet comprising a wireless receiver, a wireless transmitter, a display, a microphone, a speaker, one or more buttons or knobs, a microprocessor and a touch screen, the smart phone or tablet configured to receive and process at least a portion of the output signal, wherein the smart phone or tablet is configured to store and display the processed output signal, and wherein at least a portion of the processed output signal is configured to be transmitted over a wireless transmission link;

a cloud configured to receive over the wireless transmission link an output status comprising the at least a portion of the processed output signal, to process the received output status to generate processed data, and to store the processed data;

wherein the output signal is indicative of one or more of the physiological parameters;

the wearable device configured to increase the signal-to-noise ratio by increasing light intensity of at least one of the plurality of semiconductor sources from an initial light intensity; and

the detection system further configured to:

generate a first signal responsive to light received while the light emitting diodes are off,

generate a second signal responsive to light received while at least one of the light emitting diodes is on, and

increase the signal-to-noise ratio by comparing the first signal and the second signal.

16. (Original) The system of Claim 15, wherein the wearable device is at least in part configured to detect an object, and a property of at least some of the output signal is compared to a threshold.

17. (Original) The system of Claim 15, wherein a detector output from at least one of the plurality of spatially separated detectors is coupled to an amplifier having a gain configured to be adjusted to improve detection sensitivity.

18. (Original) The system of Claim 15, wherein the wearable device is configured to use artificial intelligence in making decisions associated with at least a portion of the output signal.

19. (Original) The system of claim 18 wherein the artificial intelligence comprises a pattern matching algorithm.

20. (Original) The system of claim 18 wherein the artificial intelligence comprises spectral fingerprinting.

21. (Currently Amended) The system of Claim 15, wherein the wearable device is configured to perform pattern identification or classification based on at least a part of the output signal~~, or the wearable device is configured to apply regression signal processing methodologies to at least a part of the output signal~~.

22. (Original) The system of Claim 21, wherein the pattern identification or classification comprises a pattern matching algorithm or spectral fingerprinting.

23. (Currently Amended) The system of Claim 15, wherein the wearable device further comprises a reflective surface positioned to reflect at least a portion of ~~the output~~ light reflected from the tissue.

Remarks

Claims 1-23 are pending in the Application, of which claims 1-23 are allowed. The Notice of Allowability dated August 19, 2019 lists claims 1-23 as being allowed on the summary sheet, and states that it is responsive to communication of "7/9/19," which is the application filing date.

However, Applicant filed a preliminary amendment on August 6, 2019 to amend claims 1, 4, 6, 7, 11, 12, 14, 15, 21, and 23. To avoid any confusion, by this response Applicant amends claims 1, 4, 6, 7, 11, 12, 14, 15, 21, and 23 to undo the preliminary amendment of August 6, 2019, and effectively change the claims back to the original claims as filed on July 9, 2019. The amendment does not alter the scope of the application.

Please charge any fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,

MOHAMMED N. ISLAM

By: /Andrew B. Turner/
Andrew B. Turner
Reg. No. 63,121
Attorney for Applicant

Date: August 23, 2019

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351

Electronic Acknowledgement Receipt

EFS ID:	36963238
Application Number:	16506885
International Application Number:	
Confirmation Number:	7781
Title of Invention:	SEMICONDUCTOR DIODES-BASED PHYSIOLOGICAL MEASUREMENT DEVICE WITH IMPROVED SIGNAL-TO-NOISE RATIO
First Named Inventor/Applicant Name:	Mohammed N. ISLAM
Customer Number:	109543
Filer:	Andrew B. Turner/Amy Tanner
Filer Authorized By:	Andrew B. Turner
Attorney Docket Number:	OMNI 0101 PUSA5
Receipt Date:	23-AUG-2019
Filing Date:	09-JUL-2019
Time Stamp:	14:20:11
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		OMNI0101PUSA5_Amendment_312.pdf	55112 779abb4d87d09f673640954999d1b3e9f8a082e5	yes	9

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment after Notice of Allowance (Rule 312)	1	1
	Claims	2	8
	Applicant Arguments/Remarks Made in an Amendment	9	9
Warnings:			
Information:			
	Total Files Size (in bytes):	55112	

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/506,885	07/09/2019	Mohammed N. ISLAM	OMNI 0101 PUSA5	7781

109543 7590 10/08/2019

Brooks, Kushman P.C./Cheetah Omni MedSci
1000 Town Center
Twenty Second Floor
Southfield, MI 48075

EXAMINER
RAHMAN, MD M

ART UNIT	PAPER NUMBER
2886	

NOTIFICATION DATE	DELIVERY MODE
10/08/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@brookskushman.com

Response to Rule 312 Communication	Application No.	Applicant(s)	
	16/506,885	ISLAM, Mohammed N.	
	Examiner	Art Unit	AIA (FITF) Status
	MD M RAHMAN	2886	Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

1. ☑ The amendment filed on 23 August 2019 under 37 CFR 1.312 has been considered, and has been:
   a) ☑ entered.
   b) ☐ entered as directed to matters of form not affecting the scope of the invention.
   c) ☐ disapproved because the amendment was filed after the payment of the issue fee.
      Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.
   d) ☐ disapproved. See explanation below.
   e) ☐ entered in part. See explanation below.

/MD M RAHMAN/
Primary Examiner, Art Unit 2886

OK TO ENTER: /M.M.R/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

MOHAMMED N. ISLAM

Group Art Unit: 2886

Examiner: RAHMAN, MD M.

Serial No.: 16/506885

Filed: July 09, 2019

For: SEMICONDUCTOR DIODES-BASED PHYSIOLOGICAL MEASUREMENT DEVICE WITH IMPROVED SIGNAL-TO-NOISE RATIO

Attorney Docket No.: OMNI0101PUSA5

AMENDMENT AFTER ALLOWANCE
UNDER 37 C.F.R. § 1.312

Mail Stop Issue Fee
Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Please amend the above-identified application as follows:

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www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/506,885	07/09/2019	Mohammed N. ISLAM	OMNI 0101 PUSA5

CONFIRMATION NO. 7781

109543
Brooks, Kushman P.C./Cheetah Omni MedSci
1000 Town Center
Twenty Second Floor
Southfield, MI 48075

PUBLICATION NOTICE

OC000000112303462

Title:SEMICONDUCTOR DIODES-BASED PHYSIOLOGICAL MEASUREMENT DEVICE WITH IMPROVED SIGNAL-TO-NOISE RATIO

Publication No.US-2019-0328235-A1
Publication Date:10/31/2019

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently https://portal.uspto.gov/pair/PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

109583 7590 08/19/2019
Brooks, Kushman P.C./Cheetah Omni MedSci
1000 Town Center
Twenty Second Floor
Southfield, MI 48075

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

Amy Tanner	(Typed or printed name)
/Amy Tanner/	(Signature)
November 6, 2019	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/506,885	07/09/2019	Mohammed N. ISLAM	OMNI 0101 PUSA5	7781

TITLE OF INVENTION: SEMICONDUCTOR DIODES-BASED PHYSIOLOGICAL MEASUREMENT DEVICE WITH IMPROVED SIGNAL-TO-NOISE RATIO

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	11/19/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
RAHMAN, MD M	2886	250-341800

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 BROOKS KUSHMAN P.C.
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: Omni Medsci, Inc.
(B) RESIDENCE: (CITY and STATE OR COUNTRY): Ann Arbor, MI

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☑ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☑ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies .....

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

☑ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

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5. **Change in Entity Status** (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Andrew B. Turner/ Date November 6, 2019

Typed or printed name Andrew B. Turner Registration No. 63121

Electronic Patent Application Fee Transmittal

Application Number:	16506885
Filing Date:	09-Jul-2019
Title of Invention:	SEMICONDUCTOR DIODES-BASED PHYSIOLOGICAL MEASUREMENT DEVICE WITH IMPROVED SIGNAL-TO-NOISE RATIO
First Named Inventor/Applicant Name:	Mohammed N. ISLAM
Filer:	Andrew B. Turner/Amy Tanner
Attorney Docket Number:	OMNI 0101 PUSA5

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	2501	1	500	500

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**500**

Electronic Acknowledgement Receipt

EFS ID:	37657966
Application Number:	16506885
International Application Number:	
Confirmation Number:	7781
Title of Invention:	SEMICONDUCTOR DIODES-BASED PHYSIOLOGICAL MEASUREMENT DEVICE WITH IMPROVED SIGNAL-TO-NOISE RATIO
First Named Inventor/Applicant Name:	Mohammed N. ISLAM
Customer Number:	109543
Filer:	Andrew B. Turner/Amy Tanner
Filer Authorized By:	Andrew B. Turner
Attorney Docket Number:	OMNI 0101 PUSA5
Receipt Date:	06-NOV-2019
Filing Date:	09-JUL-2019
Time Stamp:	09:19:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$500
RAM confirmation Number	E2019A6019559291
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	OMNI0101PUSA5_issue_fee_payment_transmittal.pdf	991246 fd6225301418093aa586cf7be915c8ced91f4bc7	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30360 04aba60bdce166b7a824feac43ab9ae6dbd5046a	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1021606		

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/506,885	12/31/2019	10517484	OMNI 0101 PUSA5	7781

109543 7590 12/11/2019

Brooks, Kushman P.C./Cheetah Omni MedSci
1000 Town Center
Twenty Second Floor
Southfield, MI 48075

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Omni Medsci, Inc., Ann Arbor, MI;
Mohammed N. ISLAM, Ann Arbor, MI;