# **Curriculum Vitae**

(Last updated: 5 May 2017)

# Bai-Ou Guan

Professor and Dean, Institute of Photonics Technology, Jinan University Vice Chairman, Academic Committee of Jinan University 601 Huangpu Road West, Guangzhou, 510632 P. R. China

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### **EDUCATION**

2000	Ph.D., Optics, Nankai University, Tianjin, P. R. China.
1997	M.Sc., Optics, Nankai University, Tianjin, P. R. China.
1994	B.Sc., Applied Physics, Sichuan University, Chengdu, P. R. China.

#### PROFESSIONAL EXPERIENCE

Professor and Dean, Institute of Photonics Technology, Jinan University,
Guangzhou, P. R. China
Director, Liaoning Provincial Key Laboratory of Advanced Optoelectronic
Technology, Dalian University of Technology, Dalian, P. R. China
Professor, School of Physics & Optoelectronic Engineering,
Dalian University of Technology, Dalian, P. R. China
Postdoctoral Research Fellow, Department of Electrical Engineering,
The Hong Kong Polytechnic University, Hong Kong, P. R. China
Research Associate, Department of Electrical Engineering, The Hong
Kong Polytechnic University, Hong Kong, P. R. China

# **RESEARCH INTERESTS**

- 1. **Fiber optic devices and technologies**: fiber gratings, fiber grating lasers, micro/nano scale optical fibers, photonic crystal fibers, etc.
- 2. **Optical fiber sensors**: fiber grating sensors, fiber laser sensors, micro/nano fiber sensors, optical fiber evanescent-wave sensors, microstructured fiber sensors, microwave photonic sensors, etc.
- 3. **Biomedical photonic sensing and imaging**: fiber optic biosensors, photoacoustic imaging and endoscopy, etc.

# **PROFESSIONAL SERVICES**

### **Member of Editorial Board:**

Associate Editor, Photonic Sensors (2013 – Present)
Topical Editor, Chinese Optics Letters (2017– present)
Editor, Optics & Optoelectronic Technology (in Chinese) (2013 – Present)

# **Ad-hoc Reviewer for Journals:**

Optics Letter

**Optics Express** 

**Applied Optics** 

Journal of Lightwave Technology

IEEE Journal of Selected Topics in Quantum Electronics

**IEEE Photonics Technology Letters** 

**IEEE Photonics Journal** 

**IEEE Sensors Journal** 

Sensors & Actuators A: Physical Sensors & Actuators B: Chemical Biosensors and Bioelectronics

Optics Communications
Optical Fiber Technology
Measurement Science and Technology

### **Conference Organizer and Chair:**

(1) *General Chair*, the 4th Workshop on Specialty Optical Fiber and Their Applications (WSOF'2015), Nov 4-6, 2015, Hong Kong, China.

- (2) *General Chair*, the 10th International Conference on Optical Communications and Networks (ICOCN2011), Dec 5-7, 2011, Guangzhou, China.
- (3) *TPC Co-Chair*, the 5th International Forum for Development and Industrialization of Optical Fiber Sensor (IFDI-OFS2010), July 1-3, 2010, Guangzhou, China.
- (4) *General Co-Chair*, the 2nd Asia-Pacific Optical Sensors Conference (APOS2010), June 28-30, 2010, Guangzhou, China.
- (5) *TPC Co-Chair*, the 5th Asia-Pacific Microwave Photonics Conference (APMP2010), April 26-28, 2010, Hong Kong, China.
- (6) Local Organizer, the 3rd International Conference on Optofluidics (Optofluidcs2013), Aug.15-17, 2013, Hong Kong, China.
- (7) Sub-Committee Chair, the16th International Conference on Optical Communications and Networks (ICOCN2017), Aug. 7-10, 2017, Wuzhen, China.
- (8) *Sub-Committee Chair,* the 6th Asia-Pacific Optical Sensors Conference (APOS2016), Oct. 11-14, 2016, Shanghai, China.
- (9) Sub-Committee Chair, the 15th International Conference on Optical Communications and Networks (ICOCN2016), Sep. 24-27, 2016, Hangzhou, China.
- (10) Sub-Committee Chair, the 7th International Conference on Information Optics and Photonics, July 12-15, 2015, Nanjing, China.
- (11) Sub-Committee Chair, Applied Optics and Photonics China, May 5-7, 2015, Beijing, China.
- (12) Sub-Committee Chair, Asia Communications and Photonics Conference (ACP2014), November 11-14, 2014, Shanghai, China.
- (13) Sub-Committee Chair, the 12th International Conference on Optical Communications and Networks (ICOCN2013), July 26-28, 2013, Chengdu, China.
- (14) *TPC Co-Chair*, the 2011 Optical Fiber Sensors Conference (OFS-China 2011), Harbin, China, Dec.27-29, 2011.
- (15) Sub-Symposium Vice Chair, 2010 International Conference on Communications and Mobile Computing (CMC 2010), April 12-14, 2010, Shenzhen, China.

### **Member of International Steering/Advisory Committee of Conferences:**

- (1) *Member of International Steering Committee*, the 5rd Asia Pacific Optical Sensors Conference 2016 (APOS 2016), Shanghai China, Oct 11-14, 2016.
- (2) *Member of International Steering Committee*, the 5rd Asia Pacific Optical Sensors Conference 2015 (APOS 2015) , Jeju, Korea, May 20-22, 2015.
- (3) *Member of International Advisory Committee*, International Conference on Microwave and Photonics 2013 (ICMAP2013), Dhanbad, India, Dec. 13-15, 2013.
- (4) *Member of International Steering Committee*, the 4rd Asia Pacific Optical Sensors Conference 2013 (APOS 2013), Wuhan, China, Oct. 15-18, 2013.
- (5) *Member of International Steering Committee*, the 6th IEEE/International Conference on Advanced Infocomm Technology (IEEE/ICAIT 2013), Hsinchu, Taiwan, July 6-9, 2013.
- (6) *Member of International Steering Committee*, the 3rd Asia Pacific Optical Sensors Conference 2012 (APOS 2012), Sydney, Australia, Jan. 1-Feb.3, 2012.
- (7) *Member of International Steering Committee*, the 11th International Conference on Optical Communications and Networks (ICOCN2012), Pattaya, Thailand, Nov. 28-30, 2012.

# **Member of Technical Program Committee of Conferences:**

- (1) International Conference on Optical Fiber Sensors (OFS)
- (2) The Asia Communications and Photonics Conference (ACP)
- (3) Workshop on Specialty Optical Fibers and Their Applications (WSOF)
- (4) Asia Pacific Optical Sensors Conference (APOS)
- (5) Bragg Gratings, Photosensitivity, and Poling in Glass Waveguides (BGPP)

- (6) Opto-Electronics and Communications Conference (OECC)
- (7) International Conference on Optical Communications and Networks (ICOCN)
- (8) OSA Topical Meeting: Optical Sensors

# Reviewer or Examiner for Awards, Funding, and PhD Thesis:

- (1) Reviewer/Examiner for National Science and Technology Award of China
- (2) Reviewer/Examiner for National Natural Science Foundation of China
- (3) Reviewer/Examiner for Natural Science Foundation of Guangdong Province
- (4) **PhD Thesis Reviewer/Examiner** for Queensland University of Technology (Australia), Victoria University (Australia), and for many universities in China.

### **HONORS AND AWARDS**

- 2016 Leading talents in scientific and technological innovation of "Ten-Thousand Talents Program" (The "Ten-Thousand Talents Program" is a Support Program for National High Level Talents. The overall goal is to select and support 10,000 outstanding talents, leading talents, and young talents in the fields of natural sciences, engineering and social sciences in ten years)
- 2015 Guangdong Province Universities and Colleges Pearl River Scholar
- 2014 The 16th Guangdong Youth May Fourth Medal
- 2013 Young Leading Talent in Scientific and Technological Innovation (Ministry of Science and Technology of the People's Republic of China)
- 2012 National Science Fund for Distinguished Young Scholars of China
- 2010 The national-level cultivation candidate of the "Thousand-Hundred-Ten" Program of Guangdong Province
- 2008 Dalian Youth Science and Technology Award
- 2007 The first-tier talent of "Hundred-Thousand-Ten Thousand Talent Project" of Liaoning Province
- 2006 New Century Excellent Talents in Universities (Ministry of Education of the People's Republic of China)

### **RESEARCH GRANTS**

- Science and technology project of Guangdong Province: Fiber-optic sensors for electrical cable line monitoring (Grant No. 2015B010127014), RMB 8,000,000, Jan 2016 – Dec 2018, Principal Investigator.
- 2. Guangdong Natural Science Foundation: Fiber optic sensor network for electrical power monitoring (Grant No. S2013030013302), RMB 2,000,000, Oct 2013 Sept 2017, Principal Investigator.
- 3. Fundamental Research Funds for the Central Universities: Fiber optic sensing and communication (Grant No. 21613104), RMB 3,000,000, Jan 2013 Dec 2015, Principal Investigator.
- 4. The National Science Foundation for Distinguished Young Scholars of China: Fiber optic sensor (Grant No. 61225023), RMB 2,000,000, Jan 2013 Dec 2016, Principal Investigator.
- 5. The Key Program of National Natural Science Foundation of China: Research on Basic Issues and Key Techniques of Dual-Frequency Interferometric Fiber Laser Acoustic Vector Sensor (Grant No. 61235005), RMB 3,000,000, Jan 2013 Dec 2017, Principal Investigator.
- The General Program of National Natural Science Foundation of China: Multiplexable optical fiber hydrogen sensor with improved time-response for cryogenic environments (Grant No. 61177074), RMB 680,000, Jan 2012 – Dec 2015, Principal Investigator.
- 7. International Science and Technology Cooperation Project of Guangdong Province: High-performance Brillouin-based distributed fiber optic sensing system and applications, RMB 500,000, Jan 2012 Dec 2015, Principal Investigator.
- 8. Guangdong Province Universities and Colleges High-Level Talent Foundation: Long distance distributed fiber optic sensing technology, RMB 500,000, Jan 2012 Dec 2014, Principal Investigator.
- 9. Science and Technology Planning Project of Guangzhou City: The platform for international cooperation on fiber optics, RMB 550,000, May 2012 April 2015, Principal Investigator.
- 10. Research Fund for the Doctoral Program of Higher Education: Microfiber Bragg grating DNA biosensor (Grant No. 20114401110006), RMB 120,000, Jan 2012 Dec 2014, Principal Investigator.
- 11. Fundamental Research Funds for the Central Universities: Fiber optic sensing and communication

- (Grant No. 21609102), RMB 1,500,000, Jan 2010 Dec 2012, Principal Investigator.
- 12. The Key Program of National Natural Science Foundation of China: Integrated, high speed, multi-parameter, large scale fiber optic sensor network technology (Grant No. 60736039), RMB 1,800,000, Jan 2008 Dec 2011, Principal Investigator.
- 13. Liaoning Provincial Natural Science Foundation: OFDR based long distance distributed fiber optic sensing technology (Grant No. 20082166), RMB 50,000, Jan 2009 Dec 2011, Principal Investigator.
- 14. Research Fund for the Doctoral Program of Higher Education: Novel fiber optic hydrophone array (Grant No. 20070141041), RMB 36,000, Jan 2008 Dec 2010, Principal Investigator.
- 15. Program for New Century Excellent Talents in University: Fiber optic sensor technology based on the modulation of beat frequency of fiber lasers (Grant No. NCET-06-0271), RMB 500,000, Jan 2006 Dec 2009, Principal Investigator.
- 16. National 863 Project: High temperature fiber Bragg grating sensors (Grant No. 2006AA702404), RMB 700,000, Jan 2006 Dec 2007, Co-Principal Investigator.
- 17. Dalian Natural Science and Technology Foundation: Novel fiber optic hydrophone (Grant No. 2006J23JH017), RMB 50,000, Jan 2006 Dec 2008, Principal Investigator.

# **INVITED/PLANERY TALKS**

- 1. "Dual frequency interferometric fiber-optic sensing technology," *Invited Talk*, Wuhan Optoelectronic Forum, Wuhan, May 11, 2017.
- 2. "Optical microfiber biosensors," *Plenary Talk*, National Conference on Micro/Nano Photonics, Qingdao, Nov. 11-13, 2016.
- 3. "Optical microfiber mode interferometer chemical and biological sensors," *Invited Talk*, Asia Communications and Photonics Conference (ACP2016), Wuhan, China, November 2-5, 2016.
- 4. "Nonadiabatically tapered microfiber chemical and biological sensors," *Invited Talk*, the 4th International Workshop on Optical Nanofiber Applications (ONNA2016), Hangzhou, China, October 23-26, 2016.
- 5. "Dual-Frequency Interferometric Fiber Laser Sensing Technology," *Invited Talk*, Optical Fiber Sensor Industry Forum, Shanghai, Oct. 10, 2016.
- 6. "Interforemetric microfiber chemical and biological sensors," *Invited Talk*, the 10<sup>th</sup> National Photonics Conference, Xi'an, Sept. 18-21, 2016.
- 7. "193nm Excimer laser inscribed microfiber Bragg gratings and their applications," *Invited Talk*, the 8th International Conference on Information Optics and Photonics (CIOP2016), Shanghai, China, July 17-20, 2016.
- 8. "Tapered fiber-optic interferometer biosensors," *Invited Talk*, the 8th International Conference on Information Optics and Photonics (CIOP2016), Shanghai China, July 17-20, 2016.
- 9. "Optical fiber biosensors for early diagnosis of critical disease," *Invited Talk*, the 9<sup>th</sup> Informational OptoElectronics Workshop, Beijing, Feb, 27-28, 2016.
- 10. "Optical Fiber Biosensors for Disease Marker Detection," *Invited Talk*, the 7<sup>th</sup> National Youth Forum on Optics, Guangzhou, Dec. 14-16, 2015.
- 11. "Optical fiber biosensors," *Invited Talk*, 2015 Academic Conference of Guangdong Optical Society, Guangzhou, Dec. 12-13, 2015.
- 12. "Optical fiber biosensor technology for early diagnosis of critical disease," *Invited Talk*, Workshop on Optical Fiber Sensor Key Technology (NSFC), Xi'an, Oct. 19-21, 2015.
- 13. "Miniaturized Tunable Microwave Photonic Generator," *Invited Talk*, Workshop on Microwave Photonics and Applications, Changchun, July 19-21, 2015.
- 14. "Polarimetric heterodyning fiber grating laser sensors," *Invited Talk*, the 14th International Conference on Optical Communications and Networks (ICOCN 2015), Nanjing, China, July 3-5, 2015.
- 15. "Recent progress in polarimetric heterodyning fiber grating laser sensors," *Invited Talk*, the 8th International Photonics and OptoElectronics Meetings (POEM 2015), Wuhan, China, June 16-19, 2015.
- 16. "Optical Microfiber Grating Sensors," *Invited Talk*, Information Photonics Forum, Wuhan, June 16, 2015.
- 17. "Polarimetric heterodyning fiber grating laser magnetic field sensor," Invited Talk, the

7th IEEE/International Conference on Advanced Infocomm Technology (IEEE/ICAIT2014), Fuzhou, China, November 14 -16, 2014.

- 18. "Dual-Frequency Interferometric Fiber Laser Sensing Technology," *Invited Talk*, the 9<sup>th</sup> National Photonics Conference, Chengdu, Nov. 7-9, 2014.
- 19. "Polarimetric heterodyning fiber grating laser sensors," *Invited Talk*, International Symposium on Fiber Sensing Technologies and Their Applications, Shenzhen, China, Sept. 2, 2014.
- 20. "Microfiber Bragg Grating Sensors," *Invited Talk*, Special Session on Nano-focusing and Applications, Progress In Electromagnetics Research Symposium (PIERS2014 in Guangzhou), Guangzhou, China, August 25-28, 2014.
- 21. "Polarimetric Heterodyning Fiber Grating Laser Magnetic Field Sensors," *Invited Talk*, *Special session on Optical Fiber Sensing Devices*, Progress In Electromagnetics Research Symposium (PIERS2014 in Guangzhou), Guangzhou, China, August 25-28, 2014.
- 22. "Microfiber-based Ultra-Sensitive Refractive Index Sensors," *Invited Talk*, *Special session on Ultrasensitive Optical Sensors*, Progress In Electromagnetics Research Symposium (PIERS2014 in Guangzhou), Guangzhou, China, August 25-28, 2014.
- 23. "Dual-Frequency Interferometric Fiber Laser Sensing Technology," *Plenary Talk*, National Academic Forum for PhD Students in Optical Engineering and Photonics, Tianjin, Aug. 23-24, 2014.
- 24. "Dual-Frequency Interferometric Fiber Laser Sensing Technology," *Invited Talk*, 2014 Academic Conference of Opto-Electronic Technology Professional Committee of COS, Qinhuangdao, Aug. 3-4, 2014.
- 25. "Optical Microfiber Grating Devices and Sensors," *Plenary Talk*, the 6<sup>th</sup> National Youth Forum on Optics, Xi'an, Aug. 1-2, 2014.
- 26. "Highly birefringent silica microfibers for ultrasensitive refractive index sensing," *Invited Talk*, the 7th International Photonics and OptoElectronics Meetings (POEM 2014), Wuhan, China, June 18-21, 2014.
- 27. "Fiber Grating Laser Magnetic Field Sensors," *Invited Talk*, International Conference on Optoelectronic Technology and Application 2014, Beijing, China, May 13-15, 2014.
- 28. "Microfiber grating devices and sensors," *Invited Talk*, the 2013 International Conference on Optical Instrument and Technology (OIT'2013), Beijing, China, Nov. 1-3, 2013.
- 29. "Bragg gratings and long-period gratings in optical microfibers," *Invited Talk*, 4th Asia Pacific Optical Sensors Conference (APOS2013), Wuhan, China, October 15-18, 2013.
- 30. "Optical Microfiber Grating Devices and Sensors," *Invited Talk*, 2013 Academic Conference of Chinese Physics Society, Xiamen, Sept. 12-15, 2013.
- 31. "Microfiber grating devices," *Invited Talk*, 3rd Workshop on Specialty Optical Fibers and their Applications (WSOF2013), Sigtuna, Sweden, Aug 28-30, 2013.
- 32. "Fiber Bragg gratings in optical microfiber," *Invited Talk*, 6th IEEE/International Conference on Advanced Infocomm Technology (ICAIT2013), Hsinchu, Taiwan, July 6-9, 2013.
- 33. "Microfiber Bragg gratings for refractive index sensing," *Invited Talk*, 5th International Symposium on Photoelectronic Detection and Imaging Technology and Applications (ISPDI2013), Beijing, China, June 25-27, 2013.
- 34. "Microfiber Bragg gratings: fabrication and application to refractive index sensing," *Invited Talk*, Photonics Global Conference (PGC2012), Singapore, Dec 13-16, 2012.
- 35. "Fiber Grating Laser Sensor Technology, *Invited Talk*, 2012 Academic Conference of Chinese Physics Society, Guangzhou, Sept. 20-23, 2012.
- 36. "Polarimetric fiber grating laser sensors," *Plenary Talk*, the 4<sup>th</sup> National Youth Forum on Optics, Changchun, Aug. 12-16, 2012.
- 37. "Implementation and characterization of polarimetric heterodyning fiber grating laser sensors," *Invited Talk*, Optical Sensors 2012 (OSA Topical Meeting), Monterey, California, USA, June 24-28, 2012.
- 38. "Dual-polarization fiber grating lasers and their sensing applications," *Invited Talk*, International Conference on Information Photonics & Optical Communications (IPOC2011), Singapore, Oct. 21-23, 2011.
- 39. "Polarimetric heterodyning fiber grating laser sensors," *Invited Talk*, SPIE Defense, Security, and Sensing 2011, Orlando, Florida, USA, April 25-29, 2011.
- 40. "Dual-polarization fiber grating lasers and their applications," *Invited Talk*, Asia Communications

- and Photonics Conference and Exhibition (ACP2010), Shanghai, China, Dec 9-11, 2010.
- 41. "Ultra-short fiber grating lasers for sensing applications," *Invited Talk*, OSA/IEEE/COS Topic Meeting Advances in Optoelectronics and Micro/nano-optics (AOM2010), Guangzhou, China, Dec 3-6, 2010.
- 42. "Polarimetric fiber grating laser sensors," *Invited Talk*, 9th International Conference on Optical Communications and Networks (ICOCN2010), Nanjing, China, Oct 24-27, 2010.
- 43. "Ultra-Short Distributed Bragg Reflector Fiber Lasers," *Invited Talk*, International Conference on Advanced Infocomm Technology (ICAIT2010), Haikou, China, July 20-23, 2010.
- 44. "Ultra-compact fiber grating lasers for sensing applications," *Invited Talk*, SPIE Defense, Security, and Sensing 2010, Orlando, Florida, USA, April 5-9, 2010.
- 45. "Electrically Tunable Microwave Frequency Generation Based on Dual-Polarization Fiber Grating Laser," *Invited Talk*, Photonics and OptoEelectronics Meetings 2009, Wuhan, China, Aug 8-10, 2009.
- 46. "Electrically Tunable Microwave Frequency Generation Based on Dual-Polarization Fiber Grating Laser," *Invited Talk*, International Conference on Advanced Infocomm Technology 2009, Xi'an, China, July 7-9, 2009.
- 47. "Compact Fiber Grating Lasers for Sensing Applications," *Invited Talk*, Photonics and OptoEelectronics Meetings 2008, Wuhan, China, Nov 24-27, 2008.
- 48. "Polarimetric distributed Bragg reflector fiber laser sensors", *Invited Talk*, 1<sup>st</sup> Asia-Pacific Optical Sensors Conference 2008, Chengdu, China, Nov 6-8, 2008.
- 49. "Distributed Bragg reflector fiber lasers for high temperature sensor applications", *Invited Talk*, 5<sup>th</sup> International Symposium on Instrument Science and Technology, Shenyang, China, Sept 15-18, 2008.
- 50. "Fiber grating laser sensors," *Invited Talk*, International Conference on Advanced Infocomm Technology 2008, Shenzhen, China, July 28-31, 2008.

# JOURNAL PUBLICATIONS (Total Web of Science citation is 1941)

#### **Invited Journal Papers:**

- 1. <u>Bai-Ou Guan</u>, Long Jin, Linghao Cheng, and Yizhi Liang, "Acoustic and Ultrasonic Detection with Radio-Frequency Encoded Fiber Laser Sensors," *IEEE Journal of Selected Topics in Quantum Electronics*, Vol. 23, No. 2, Article #: 5601712, March/April 2017.
- 2. <u>Bai-Ou Guan</u>, Long Jin, Yang Zhang, and Hwa-Yaw Tam, "Polarimetric heterodyning fiber grating laser sensors," *IEEE/OSA Journal of Lightwave Technology*, Vol. 30, No. 8, pp. 1097-1112, Apr. 15, 2012.
- 3. <u>Bai-Ou Guan</u>, Yang Ran, Fu-Rong Feng, and Long Jin, "Formation and Applications of the Secondary Fiber Bragg Grating," **Sensors**, Vol. 17, No. 2, 398; doi:10.3390/s17020398, Feb 18, 2017.
- 4. <u>Bai-Ou Guan</u>, Jie Li, Long Jin, and Yang Ran, "Fiber Bragg gratings in optical microfibers," *Optical Fiber Technology*, Vol. 19, No. 6, pp. 793-801, Dec 2013.
- 5. Tuan Guo, Fu Liu, <u>Bai-Ou Guan</u>, Jacques Albert, "Tilted fiber grating mechanical and biochemical sensors," *Optics & Laser Technology*, Vol. 78, pp. 19-33, April, 2016.
- 6. Jie Li, Meng-Meng Li, Li-Peng Sun, Peng-Cheng Fan, Yang Ran, Long Jin, <u>Bai-Ou Guan</u>, "Polarization-maintaining microfiber-based evanescent-wave sensors," *Acta Physica Sinica*, Vol. 66, No. 7, Article #: 074209, April 2017.

# **Contributed Journal Papers:**

- Dandan Sun, Tuan Guo, and <u>Bai-Ou Guan</u>, "Label-free Detection of DNA Hybridization Using a Reflective Microfiber Bragg Grating Biosensor with Self-assembly Technique," *IEEE/OSA Journal of Lightwave Technology*, DOI 10.1109/JLT.2017.2659778, 2017.
- 2. Yuan Cao, Xudong Wang, Tuan Guo, Yang Ran, Xinhuan Feng, <u>Bai-Ou Guan</u>, and Jianping Yao, "High-resolution and temperature-compensational HER2 antigen detection based on a microwave photonic interrogation," *Sensors and Actuators B: Chemical*, Vol. 245, pp. 583-589, June 2017.

3. Yunyun Huang, Mingfei Ding, Tuan Guo, Ning Zhang, Zhuang Tian, Li-Peng Sun, and <u>Bai-Ou Guan</u>, "Ultrasensitive and label-free detection of γ-aminobutyric acid using fiber-optic interferometric sensors functionalized with size-selective molecular sieve arrays," *Sensors and Actuators B: Chemical*, Vol. 244, pp. 934-940, June 2017.

- Lili Liang, Long Jin, Yang Ran, Li-Peng Sun, <u>Bai-Ou Guan</u>, "Interferometric detection of microRNAs using a capillary optofluidic sensor," *Sensors and Actuators B: Chemical*, Vol. 242, pp. 999-1006, April 2017.
- 5. Jinding Huang, Xiaoxuan Zhong, Hao Liang, Linghao Cheng, <u>Bai-Ou Guan</u>, "Brillouin Scattering From Hybrid Acoustic Wave in a Microscaled Fiber for Gas Pressure Sensing," *IEEE Photonics Journal*, Vol. 9, No. 2, Article Number: 6801406, April 2017.
- 6. Yizhi Liang, Long Jin, <u>Bai-Ou Guan</u>, Lidai Wang, "2 MHz multi-wavelength pulsed laser for functional photoacoustic microscopy," *Optics Letters*, Vol. 42, No. 7, pp. 1452-1455, April 1, 2017.
- 7. Bo Yu, Yunyun Huang, Jun Zhou, Tuan Guo, <u>Bai-Ou Guan</u>, "Real-time, in-situ analysis of silver ions using nucleic acid probes modified silica microfiber interferometry," *Talanta*, Vol.165, pp. 245-250, April 1, 2017.
- 8. Yunyun Huang, Tuan Guo, Zhuang Tian, Bo Yu, Mingfei Ding, Xiangping Li, <u>Bai-Ou Guan</u>, "Non-Radiation Cellular Thermometry based on Interfacial Thermally Induced Phase Transformation in Polymer Coating of Optical Microfiber," *ACS Applied Materials & Interfaces*, Vol. 9, No. 10, pp. 9024-9028, Mar. 15, 2017.
- 9. Yunyun Huang, Bo Yu, Tuan Guo, and <u>Bai-Ou Guan</u>, "Ultrasensitive and in-situ DNA detection in various pH environments based on microfiber with graphene oxide linking layer," *RSC Advances*, Vol. 7, Issue 22, pp. 13177-13183, Feb. 24, 2017.
- 10. Xudong Wang, Jinglan Zhang, Erwin H. W. Chan, Xinhuan Feng, <u>Bai-Ou Guan</u>, "Ultra-wide bandwidth photonic microwave phase shifter with amplitude control function," *Optics Express*, Vol. 25, No. 3, pp. 2883-2894, Feb. 6, 2017.
- 11. Yizhi Liang, Long Jin, Lidai Wang, Xue Bai, Linghao Cheng, <u>Bai-Ou Guan</u>, "Fiber-Laser-Based Ultrasound Sensor for Photoacoustic Imaging," *Scientific Reports*, Vol. 7, Article Number: 40849, Jan 18, 2017.
- 12. Lin Wang, Yuan Cao, Minggui Wan, Xudong Wang, Xinhuan Feng, <u>Bai-Ou Guan</u>, Jianping Yao, "Tunable single-frequency fiber laser based on the spectral narrowing effect in a nonlinear semiconductor optical amplifier," *Optics Express*, Vol. 24, No. 26, pp. 29706-29714, Dec. 26, 2017.
- 13. Jie Li, Pengcheng Fan, Zhuang Tian, Li-Peng Sun, and <u>Bai-Ou Guan</u>, "Potential for Simultaneous Measurement of Magnetic Field and Temperature Utilizing Fiber Taper Modal Interferometer and Magnetic Fluid," *IEEE Photonics Journal*, Vol. 8, No. 6, Article Number: 6805609, Dec 2016.
- 14. Mingfei Ding, Yunyun Huang, Tuan Guo, Li-Peng Sun, and <u>Bai-Ou Guan</u>, "Mesoporous nanospheres functionalized optical microfiber biosensor for low concentration neurotransmitter detection," *Optics Express*, Vol. 24, No. 24, pp. 27152-27159, Nov 28, 2016.
- 15. Minggui Wan, Lin Wang, Feng Li, Yuan Cao, Xudong Wang, Xinhuan Feng, <u>Bai-Ou Guan</u>, and P. K. A. Wai, "Rapid, k-space linear wavelength scanning laser source based on recirculating frequency shifter," *Optics Express*, Vol. 24, No. 24, pp. 27614-27621, Nov 28, 2016.
- 16. Christophe Caucheteur, Tuan Guo, Fu Liu, <u>Bai-Ou Guan</u>, and Jacques Albert, "Ultrasensitive plasmonic sensing in air using optical fibre spectral combs," *Nature Communications*, Vol. 7, Article Number: 13371, Nov 11, 2016.
- 17. Bo Yu , Yunyun Huang, Jun Zhou , Tuan Guo and <u>Bai-Ou Guan</u>, "Understanding the pH-dependent interaction between graphene oxide and single-stranded DNA through a fiber-optic interferometer," *Physical Chemistry Chemical Physics*, Vol. 18, pp. 32266-32271, Nov. 2, 2016
- 18. Fu-Rong Feng, Tong Liu, Peng Xiao, Yang Ran, Hao Liang, Long Jin, and <u>Bai-Ou Guan</u>, "1-mu m-wavelength ytterbium-doped fiber laser based on the third harmonic reflection in secondary-type-In Bragg gratings," *Optics Letters*, Vol. 41, No. 21, pp. 4999-5002, Nov 1, 2016.
- 19. Pengcheng Fan, Li-Peng Sun, Zhipeng Yu, Jie Li, Chuang Wu, <u>Bai-Ou Guan</u>, "Higher-order diffraction of long-period microfiber gratings realized by arc discharge method," *Optics Express*, Vol. 24, No. 22, pp. 25380-25388, Oct 31, 2016.
- Di Liu, Yizhi Liang, Long Jin, Huojiao Sun, Linghao Cheng, <u>Bai-Ou Guan</u>, "Highly sensitive fiber laser ultrasound hydrophones for sensing and imaging applications," *Optics Letters*, Vol. 41, No. 19, pp. 4530-4533, Oct 1, 2016. (*Editors' Pick*)

21. Linghao Cheng, Cengzhong Wang, Yunyun Huang, Hao Liang, <u>Bai-Ou Guan</u>, "Silk fibroin diaphragm-based fiber-tip Fabry-Perot pressure sensor," *Optics Express*, Vol. 24, No. 17, pp. 19600-19606, Aug 22, 2016.

- 22. Chong-Ke Ji, Yuanhua Feng, Li-Peng Sun, Chuai Gao, Ming-Gui Wan, Jie Li, and <u>Bai-Ou Guan</u>, "Micrometer-resolution in-fiber OCT probe with tunable working distance," *Optics Express*, Vol. 24, No. 17, pp. 19814-19823, Aug 22, 2016.
- 23. Yong Yuan, Tuan Guo, Xuhui Qiu, Jiahuan Tang, Yunyun Huang, Li Zhuang, Shungui Zhou, Zhaohui Li, <u>Bai-Ou Guan</u>, Xuming Zhang, and Jacques Albert, "Electrochemical Surface Plasmon Resonance Fiber-Optic Sensor: In Situ Detection of Electroactive Biofilms," *Analytical Chemistry*, Vol. 88, No. 15, pp. 7609-7616, Aug 2, 2016.
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