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**Wenjun Zhou, Ph. D., M. Sc., B. Sc.**

## Research Interests

Photonics – Fiber-Optic Sensors; Interferometric NIR spectroscopy;  
 Plasmonics – Optical Properties of Ultrathin Gold Films;



## Education

- Jan. 2012 – Apr. 2015* **Carleton University, Canada**  
 Doctor of Philosophy (GPA: 12.0/12.0)  
 Electrical and Computer Engineering (Photonic Systems)  
 Ph. D. Thesis: *Effective Optical Properties of Ultrathin Gold Coatings Investigated by Tilted Fiber Bragg Grating*
- Sep. 2008 – Mar. 2011* **China Jiliang University, China**  
 Master of Science in Engineering  
 Optical Engineering  
 M. Sc. Thesis: *Study on Novel Fiber Bragg Grating Sensors for Multi-Parametric Measurement*
- Sep. 2004 – Jun. 2008* **China Jiliang University, China**  
 Bachelor of Science  
 Science and Technology of Optical Information

## Research Experience

- Jul. 2016 – present* **Postdoctoral Fellow**  
 Neurophotonics Lab (PI: Prof. Vivek J. Srinivasan)  
 Department of Biomedical Engineering, University of California, Davis  
 451 East Health Sciences Drive, Davis, CA 95616, USA
- May 2015 – Jun. 2016* **Postdoctoral Research Associate**  
 Advanced Photonic Components Group (PI: Prof. Jacques Albert)  
 Department of Electronics, Carleton University  
 1125 Colonel By Drive, Ottawa, ON K1S 5B6, Canada
- Jan. 2012 – Apr. 2015* **Research Assistantship**  
 Advanced Photonic Components Group (PI: Prof. Jacques Albert)  
 Department of Electronics, Carleton University  
 1125 Colonel By Drive, Ottawa, ON K1S 5B6, Canada
- Jul. 2010 – Dec. 2010* **Visiting Project Officer**  
 Optical Fiber Sensor Group (PI: Prof. Chi Chiu Chan)

Division of Bioengineering, Nanyang Technological University  
62 Nanyang Drive, Singapore 637722, Singapore

## Awards & Scholarships

- Jun. 2015* Award: Senate Medal for Outstanding Academic Achievement of Carleton University
- Apr. 2015* Award: 2014-2015 Graduate Student Open Access Award of Carleton University
- May 2014* Award: Graduate Student Travel / Research Bursary of Carleton University
- Mar. 2014* Scholarship: 2013 Chinese Government Award for Outstanding Self-Financed Students Abroad
- 2012-2015* Scholarship: Graduate Scholarship (Departmental Scholarship) of Carleton University
- Aug. 2011* Award: 7th China Youth Science and Technology Innovation Awards
- May 2011* Award: Outstanding Graduates of Zhejiang Province
- Oct. 2010* Scholarship: Top Grade Prize of China Instrument and Control Society Scholarships
- Oct. 2010* Scholarship: First Grade Prize of Outstanding Graduate Students of China Jiliang University

## Journal Publications

1. D. Feng<sup>†</sup>, **W. Zhou**<sup>†</sup>, X. Qiao, J. Albert, "High resolution fiber optic surface plasmon resonance sensors with single-sided gold coatings," *Optics Express* 24(15), 16456-16464 (Jul. 2016). (tequal contribution)
2. D. J. Mandia<sup>†</sup>, **W. Zhou**<sup>†</sup>, M. J. Ward, H. Joress, J. J. Sims, J. B. Giorgi, J. Albert, and S. T. Barry, "The effect of ALD-grown Al<sub>2</sub>O<sub>3</sub> on the refractive index sensitivity of CVD-coated optical fiber sensors," *Nanotechnology* 26(43), 434002 (Oct. 2015). (tequal contribution)
3. **W. Zhou**, D. J. Mandia, S. T. Barry, and J. Albert, "Absolute near-infrared refractometry with a calibrated tilted fiber Bragg grating," *Optics Letters* 40(8), 1713-1716 (Apr. 2015).
4. **W. Zhou**, D. J. Mandia, S. T. Barry, and J. Albert, "Anisotropic effective permittivity of an ultrathin gold coating on optical fiber in air, water and saline solutions," *Optics Express* 22(26), 31665-31676 (Dec. 2014).
5. **W. Zhou**, D. J. Mandia, M. B.E. Griffiths, S. T. Barry, and J. Albert, "Effective permittivity of ultrathin chemical vapor deposited gold films on optical fibers at infrared wavelengths," *The Journal of Physical Chemistry C* 118(1), 670-678 (Jan. 2014).
6. **W. Zhou**, D. J. Mandia, M. B.E. Griffiths, A. Bialiayeu, Y. Zhang, P. G. Gordon, S. T. Barry, and J. Albert, "Polarization-dependent properties of the cladding modes of a single mode fiber covered with gold nanoparticles," *Optics Express* 21(1), 245-255 (Jan. 2013).
7. **W. Zhou**, Y. Zhou, X. Dong, L.-Y. Shao, J. Cheng, and J. Albert, "Fiber-optic curvature sensor based on cladding-mode Bragg grating excited by fiber multimode interferometer," *IEEE Photonics Journal* 4(3), 1051-1057 (Jun. 2012).

8. **W. Zhou**, W. C. Wong, C. C. Chan, L.-Y. Shao, and X. Dong, "Highly sensitive fiber loop ringdown strain sensor using photonic crystal fiber interferometer," *Applied Optics* 50(19), 3087-3092 (Jul. 2011).
9. **W. Zhou**, X. Dong, L.-Y. Shao, C. C. Chan, C.-L. Zhao, and P. Shum, "Compact refractometer based on extrinsic-phase-shift fiber Bragg grating," *Sensors and Actuators A: Physical* 168(1), 46-50 (Jul. 2011).
10. **W. Zhou**, X. Dong, C. Shen, C.-L. Zhao, C. C. Chan, and P. Shum, "Temperature-independent vibration sensor with a fiber Bragg grating," *Microwave and Optical Technology Letters* 52(10), 2282-2285 (Oct. 2010).
11. **W. Zhou**, C.-L. Zhao, X. Dong, S. Zhang, C. C. Chan, and P. Shum, "Simultaneous measurement of force and temperature based on a half corroded FBG," *Microwave and Optical Technology Letters* 52(9), 2020-2023 (Sep. 2010).
12. **W. Zhou**, X. Dong, K. Ni, C. C. Chan, and P. Shum, "Temperature-insensitive accelerometer based on a strain-chirped FBG," *Sensors and Actuators A: Physical* 157(1), 15-18 (Jan. 2010).
13. D. Feng, **W. Zhou**, X. Qiao, and J. Albert, "Compact optical fiber 3D shape sensor based on a pair of orthogonal tilted fiber Bragg gratings," *Scientific Reports* 5, 17415 (Nov. 2015).
14. D. J. Mandia, **W. Zhou**, J. Albert, and S. T. Barry, "Chemical vapor deposition on optical fibers: tilted fiber Bragg gratings as real-time sensing platforms," *Chemical Vapor Deposition* 21(1-2-3), 4-20 (Mar. 2015).
15. C. Shen, **W. Zhou**, and J. Albert, "Polarization-resolved evanescent wave scattering from gold-coated tilted fiber gratings," *Optics Express* 22(5), 5277-5282 (Mar. 2014).
16. C. Shen, Y. Zhang, **W. Zhou**, and J. Albert, "Au-coated tilted fiber Bragg grating twist sensor based on surface plasmon resonance," *Applied Physics Letters* 104(7), 071106 (Feb. 2014).
17. D. J. Mandia, M. B.E. Griffiths, **W. Zhou**, P. G. Gordon, J. Albert, and S. T. Barry, "In Situ Deposition Monitoring by a Tilted Fiber Bragg Grating Optical Probe: Probing Nucleation in Chemical Vapour Deposition of Gold," *Physics Procedia* 46, 12-20 (2013).
18. X. Dong, Y. Zhou, **W. Zhou**, J. Cheng, and Z. Su, "Compact anemometer using silver-coated fiber Bragg grating," *IEEE Photonics Journal* 4(5), 1381-1386 (Oct. 2012).
19. W. C. Wong, **W. Zhou**, C. C. Chan, X. Dong, and K. C. Leong, "Cavity ringdown refractive index sensor using photonic crystal fiber interferometer," *Sensors and Actuators B: Chemical* 161(1), 108-113 (Jan. 2012).
20. Y. Zhou, **W. Zhou**, C. C. Chan, W. C. Wong, L.-Y. Shao, J. Cheng, and X. Dong, "Simultaneous measurement of curvature and temperature based on PCF-based interferometer and fiber Bragg grating," *Optics Communications* 284(24), 5669-5672 (Dec. 2011).

## Memberships

OSA member (999289), since Feb. 2013

SPIE member (3291789), since Mar. 2012

## References

**Prof. Jacques Albert (Ph.D. supervisor)**

Canada Research Chair in Advanced Photonic Components

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**Prof. Xinyong Dong (Master supervisor)**

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