

TAO Guangming

Huazhong University of Science and Technology
National Laboratory for Optoelectronics
1037 Luoyu Road, Hongshan Distr., Wuhan 430074, China
E-mail: tao@hust.edu.cn

2017.8-now	Professor,	Huazhong University of Science and Technology, China
2014.5-2017.7	Research Scientist	University of Central Florida, USA
2009.9-2014.5	Ph.D.	University of Central Florida, USA
2006.9-2009.7	M.Sc.	Fudan University, China
2002.9-2006.7	B. Eng.	Shandong University, China

Dr. Tao has been awarded several scholarships/honors from Optical Society of America (OSA), the International Society of Optical Engineering (SPIE), and the American Ceramic Society (ACerS), the Extraordinary Potential Prize winner of Chinese Government Award for Outstanding Self-financed Students Abroad (2013) and “1000 Young Talents” Award (2017).

Dr. Tao has published about 35 scientific papers, holds 7 U.S. and foreign patents, has given in excess of 45 invited lectures/colloquia or keynote talk, and has co-organized 6 national and international conferences and symposia. Dr. Tao is one of the technical committee members of “Wuhan•Fiber Valley”. He has years of research experience in optical sciences and engineering in academia, industry, and government institutes with expertise in the areas of specialty optical fibers, fiber devices, in-fiber nano-fabrication, and advanced functional fibers and textiles. Dr. Tao is also the cofounder of Lambda Photonics LLC, a start-up company which developed out of his Ph.D. work.

Selected Publications

1. G. Tao, J. J. Kaufman, S. Shabahang, R. R. Naraghi, S. V. Sukhov, J. D. Joannopoulos, Y. Fink, A. Dogariu, and A. F. Abouraddy, “Digital design of multimaterial photonic particles,” *Proc. Natl. Acad. Sci.* 113, 6839-6844 (2016).
2. S. Shabahang, G. Tao, J. J. Kaufman, Y. Qiao, L. Wei, T. Bouchenot, A. P. Gordon, Y. Fink, Y. Bai, R. S. Hoy, and A. F. Abouraddy, “Controlled fragmentation of multimaterial fibres and films via polymer cold-drawing,” *Nature* 534, 529-533 (2016).
3. Y. Sun, S. Dai, P. Zhang, X. Wang, Y. Xu, Z. Liu, F. Chen, Y. Wu, Y. Zhang, R. Wang, and G. Tao, “Fabrication and characterization of multimaterial chalcogenide glass fiber tapers with high numerical apertures” *Opt. Express* 23, 23472-23483 (2015).
4. G. Tao, H. Ebendorff-Heidepriem, A. M. Stolyarov, S. Danto, J. V. Badding, Y. Fink, J. Ballato, and A. F. Abouraddy, “Infrared fibers,” *Adv. Opt. Photon.* 7, 379-458, (2015).
5. G. Tao, S. Shabahang, S. Dai, and A. F. Abouraddy, “Multimaterial disc-to-fiber approach efficiently produce robust infrared fibers,” *Opt. Mater. Express* 4, 2143–2149 (2014).
6. G. Tao, S. Shabahang, H. Ren, F. Khalizadeh-Rezaie, R. E. Peale, Z. Yang, X. Wang, and A. F. Abouraddy, “Robust multimaterial tellurium-based chalcogenide glass fibers for mid-wave and long-wave infrared transmission,” *Opt. Lett.* 39, 4009-4012(2014).
7. S. Shabahang, G. Tao, M. P. Marquez, H. Hu, T. R. Ensley, P. J. Delfyett, and A. F. Abouraddy, “Nonlinear characterization of robust multimaterial chalcogenide nanotapers for infrared supercontinuum generation,” *J. Opt. Soc. Am. B* 31, 450-457 (2014).
8. J. J. Kaufman, R. Ottman, G. Tao, S. Shabahang, X. Liang, S. G. Johnson, Y. Fink, R. Chakrabarti, and A. F. Abouraddy, “In-fiber production of polymeric particles for biosensing and encapsulation,” *Proc. Natl. Acad. Sci.* 110, 15549-15554 (2013).
9. S. Shabahang, G. Tao, J. J. Kaufman, and A. F. Abouraddy, “Dispersion characterization of chalcogenide bulk glass, composite fibers, and robust nano-tapers,” *J. Opt. Soc. Am. B* 30, 2498-2506 (2013).
10. G. Tao, S. Shabahang, J. J. Kaufman, and A. F. Abouraddy, “Multimaterial preform coextrusion for robust chalcogenide optical fibers and tapers,” *Opt. Lett.* 37, 2751-2753 (2012).

11. J. J. Kaufman, G. Tao, S. Shabahang, D. S. Deng, X. Liang, S. G. Johnson, Y. Fink, and A. F. Abouraddy, "Structured spheres generated by an in-fibre fluid instability," *Nature* 487, 463-467 (2012).
12. S. Shabahang, M.P. Marquez, G. Tao, M.U. Piracha, D. Nguyen, P.J. Delfyett, and A.F. Abouraddy, "Octave-spanning infrared supercontinuum generation in robust chalcogenide nanotapers using picosecond pulses," *Opt. Lett.* 37, 4639-4641 (2012).
13. J. J. Kaufman, G. Tao, S. Shabahang, D. S. Deng, Y. Fink, and A. F. Abouraddy, "Thermal drawing of high-density macroscopic arrays of well-ordered sub-5-nm-diameter nanowires", *Nano Lett.* 11, 4768-4773 (2011).