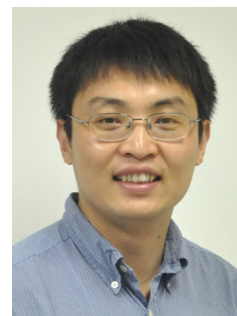




Brief Biography

Yong Sheng Zhao (born in March, 1979) is a professor at the Institute of Chemistry, Chinese Academy of Sciences. His research interest is in the area of organic nanocrystals and nanophotonics. He has published 70 peer-reviewed papers that collectively have been cited over 1600 times. He has filed 9 patents, contributed 2 book chapters, and delivered more than 30 plenary and invited talks in international or bilateral academic conferences.



His research has been recognized by the Asian and Oceanian Photochemistry Association (APA) Prize for Young Scientists (2013), the Chinese Chemical Society-Evonik Chemical Innovation Award (2013), the CAIA Science and Technology First Prize (2013), Chinese National Science Foundation Award for Distinguished Young Investigators (2011), the Chinese Chemical Society Award for Outstanding Young Chemist (2011), and the Scopus Young Scientist Award (2009).

He is on the Editorial Board of *Scientific Reports* (NPG) and *Advanced Optical Materials* (Wiley-VCH). He is also serving as the Vice Secretary General of the NanoChemistry Committee of the Chinese Chemical Society, Council Members of Chinese Functional Materials Society, the Youth Branch of Chinese Chemical Society, and the Youth Branch of Chinese Materials Research Society.

Education and Career

- 10/2009-Present Professor
Institute of Chemistry, Chinese Academy of Sciences
- 04/2008-09/2009 Postdoc (Advisor: Jiaxing Huang)
Northwestern University, USA
- 03/2007-03/2008 Postdoc (Advisor: Qibing Pei)
University of California, Los Angeles, USA
- 09/2003-09/2006 Ph.D. in Chemistry (Advisor: Jiannian Yao)
Institute of Chemistry, Chinese Academy of Sciences
- 09/2000-07/2003 M.S. in Chemistry (Advisor: Zhengzhi Pang)
Beijing University of Chemical Technology, China
- 09/1996-07/2000 B.S. in Chemistry
Qingdao University, China

Honors and Awards

- **2013** Asian and Oceanian Photochemistry Association Prize for Young Scientists
- **2013** Chinese Chemical Society-Evonik Chemical Innovation Award
- **2013** CAIA Science and Technology First Prize
- **2013** Award for Outstanding Performance in the “100 Talents Project”
- **2011** National Science Foundation for Distinguished Youth Scholar
- **2011** Youth Chemist Award of the Chinese Chemical Society



- **2009** Elsevier Scopus Young Scientist Silver Award
- **2006** CAS President Scholarship Award

Academic Part-time Services

- **2013** Editorial Board Member, *Advanced Optical Materials*;
- **2013** Editorial Board Member, *Scientific Reports*;
- **2013** Vice Secretary-General, Nanochemistry Professional Committee, CCS;
- **2013** Council Member, Youth Branch of Chinese Chemical Society;
- **2013** Council Member, Chinese Functional Materials Society;
- **2013** Academic Board Member, CAS Center for Molecular Science;
- **2013** Secretary, Academic Board of Institute of Chemistry, CAS;
- **2011** Council Member, Youth Branch of MRS China;

Fundings

- **National Natural Science Foundation of China**

- ☆ National Science Foundation for Distinguished Youth Scholar, "Low dimensional organic nanophotonics", 2012-2015, 2M Yuan, PI;
- ☆ Key Research Project, "The design and synthesis of low-dimensional organic crystal materials and their optoelectronic properties", 2011-2013, 700K Yuan, PI;
- ☆ General Project, "The construction and photonic properties of organic one-dimensional composite nanomaterials", 2011-2013, 400K Yuan, PI.
- ☆ General Project, "The controlled synthesis and unique optical properties of organic/metal hybrid structures", 2014-2016, 830K Yuan, PI.

- **Ministry of Science and Technology of China**

- ☆ Special Project for Development of Scientific Instrument, "The development and popularization of tester for nanophotonics", 2012-2015, 64M Yuan, co-PI and subproject PI;
- ☆ National Key Scientific Research Projects (973), "Controlled synthesis and application of large area ordered nanostructures", 2011-2015, 30M Yuan in total, in charge of 1M as subproject PI.

- **Chinese Academy of Sciences**

- ☆ Project for the Development of Scientific Instrument, "Platform for the study of nanophotonics", 2009-2011, 2.8M Yuan, PI;
- ☆ 100 Talents Program, 2009-2011, 1.5M Yuan, PI;



- ☆ Start Up Funding for the Winners of the CAS President Scholarship Award 2010-2013, 100K Yuan, PI.
- ☆ Key Research Project, "Light emitting FET based on organic low-dimensional materials", 2013-2015, 1M Yuan, PI.
 - **Others**
- ☆ Ministry of Education Start up Funding for the Returned Overseas Scholars, "Organic nanophotonics", 2011-2013, 50 K Yuan, PI.

Book Chapters

- One-Dimensional Nanostructures: Principles and Applications, Chapter 17, pp381-395, *Organic one-dimensional nanostructures: construction and optoelectronic properties*. WILEY Inc, 2013.
- Organic One-Dimensional Nanomaterials: Promising Elements for Integrated Nanophotonics, Chapter 9, *Organic Nanophotonics: Fundamentals and Applications*. Springer, 2014.

Representative publications (See all publications in <http://yszhao.iccas.ac.cn>)

- (20) Y. Yan, Y. S. Zhao*, "Organic nanophotonics: from controllable self-assembly of optofunctional molecules to low-dimensional materials with desired photonic properties." *Chem. Soc. Rev.* 2014, in press. (**Invited Review**)
- (19) J. Ye, C. Zhang, C.-L. Zou, Y. Yan, J. Gu, Y. S. Zhao*, J. Yao. "Optical wavelength filters based on photonic confinement in semiconductor nanowire homojunctions", *Adv. Mater.* 2014, **26**, 620-624. (**Back Cover, Highlighted in Wiley Materials Views**).
- (18) W. Yao, Y. Yan, L. Xue, C. Zhang, G. Li, Q. Zheng, Y. S. Zhao*, H. Jiang, J. Yao. "Controlling the structures and photonic properties of organic nanomaterials by molecular design." *Angew. Chem. Int. Ed.* 2013, **52**, 8713-8717. (**Hot Paper**)
- (17) Y. Yan, C. Zhang, J. Yao, Y. S. Zhao*. "Recent advances in organic one-dimensional composite materials: design, construction, and photonic elements for information processing." *Adv. Mater.* 2013, **25**, in 3627-3638. (**Invited Progress Report**)
- (16) C. Zhang, Y. Yan, J. Yao, Y. S. Zhao*. "Manipulation of light flows in organic color-graded microstructures towards integrated photonic heterojunction devices." *Adv. Mater.* 2013, **25**, 2854-2859.
- (15) Y. J. Li, Y. Yan, C. Zhang, Y. S. Zhao*, J. Yao. "Embedded branch-like organic/metal nanowire heterostructures: liquid-phase synthesis, efficient photon-plasmon coupling, and optical signal manipulation." *Adv. Mater.* 2013, **25**, 2784-2788. (**Back Cover, Highlighted in Wiley Materials Views**).
- (14) J. Y. Zheng, Y. Yan, X. Wang, Y. S. Zhao*, J. Huang, J. Yao. "Wire-on-wire growth of fluorescent organic heterojunctions." *J. Am. Chem. Soc.* 2012, **134**, 2880-2883. (**Highlighted in RSC Chemistry World**)



- (13) Y. Yan, C. Zhang, J. Y. Zheng, J. Yao, **Y. S. Zhao***. "Optical modulation based on direct photonic-plasmonic coupling in organic/metal nanowire heterojunctions." *Adv. Mater.* 2012, **24**, 5681-5686. (Cover Story)
- (12) Q. Li, J. Y. Zheng, Y. Yan, **Y. S. Zhao***, J. Yao. "Electrogenerated chemiluminescence of metal-organic nanowires: reduced graphene oxide enhancement and biosensing application." *Adv. Mater.* 2012, **24**, 4745-4749. (Highlighted in *Science Daily*)
- (11) J. Y. Zheng, Y. Yan, X. Wang, W. Shi, H. Ma, **Y. S. Zhao***, J. Yao. "Hydrogen peroxide vapor sensing with organic core/sheath nanowire optical waveguides." *Adv. Mater.* 2012, **24**, OP194-OP199 (Inside Cover, Highlighted in *Wiley Materials Views*)
- (10) Q. H. Cui, L. Jiang, C. Zhang, **Y. S. Zhao***, W. Hu, J. Yao. "Coaxial organic p-n heterojunction nanowire arrays: one-step synthesis and photoelectric properties." *Adv. Mater.* 2012, **24**, 2332-2336.
- (9) J. Gu, Y. Yan, **Y. S. Zhao***, J. Yao. "Controlled synthesis of bulk polymer nanocomposites with tunable nonlinear optical properties." *Adv. Mater.* 2012, **24**, 2249-2253.
- (8) C. Zhang, Y. Yan, Y. Y. Jing, Q. Shi, **Y. S. Zhao***, J. Yao. "One-dimensional organic photonic heterostructures: rational construction and spatial engineering of excitonic emission." *Adv. Mater.* 2012, **24**, 1703-1708. (Inside Cover)
- (7) C. Zhang, C. L. Zou, Y. Yan, R. Hao, F. W. Sun, Z. F. Han, **Y. S. Zhao***, J. Yao. "Two-photon pumped lasing in single crystal organic nanowire exciton polariton resonators." *J. Am. Chem. Soc.* 2011, **133**, 7276-7279. (Highlighted in *J. Am. Chem. Soc. and Nanotimes*)
- (6) C. Zhang, J. Y. Zheng, **Y. S. Zhao***, J. Yao. "Self-modulated white light outcoupling in doped organic nanowire waveguides via the fluctuations of singlet and triplet excitons during propagation." *Adv. Mater.* 2011, **23**, 1380-1384. (Highlighted in *Nanotimes*)
- (5) **Y. S. Zhao**, H. Fu, A. Peng, Y. Ma, Q. Liao, J. Yao. "Construction and optoelectronic properties of organic one-dimensional nanostructures." *Acc. Chem. Res.* 2010, **43**, 409-418. (Invited Review)
- (4) **Y. S. Zhao**, J. Wu, J. Huang. "Vertical organic nanowire arrays: controlled synthesis and chemical sensors." *J. Am. Chem. Soc.* 2009, **131**, 3158-3159.
- (3) **Y. S. Zhao**, J. Xu, A. Peng, H. Fu, Y. Ma, L. Jiang, J. Yao. "Optical waveguide based on crystalline organic microtubes and microrods." *Angew. Chem. Int. Ed.* 2008, **47**, 7301-7305. (Highlighted in *NPG Asia Materials*)
- (2) **Y. S. Zhao**, A. Peng, H. Fu, Y. Ma, J. Yao. "Nanowire waveguides and ultraviolet lasers based on small organic molecules." *Adv. Mater.* 2008, **20**, 1661-1665. (Highlighted in *NPG Asia Materials*.)
- (1) **Y. S. Zhao**, H. Fu, F. Hu, A. Peng, W. Yang, J. Yao. "Tunable emission from binary organic one-dimensional nanomaterials: an alternative approach to white-light emission." *Adv. Mater.* 2008, **20**, 79-83. (Highlighted in *Nature*)
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Selected Plenary/Invited Talks

- (16) **Yong Sheng Zhao**, Organic Nanophotonic Materials and Devices. *China-Singapore Bilateral Symposium on Nanomaterials and Environmental Chemistry*. Hefei, China, Jan. 3-5, 2014.
- (15) **Yong Sheng Zhao**, Elements for Integrated Nanophotonics Based on Organic One-Dimensional Nanocrystals. *CAS-CSIRO Nanotechnology Workshop*, Beijing, China, Sept. 8-9, 2013.
- (14) **Yong Sheng Zhao**, Organic One-Dimensional Nanocrystals: Promising Elements for Integrated Nanophotonics. *4th China NANO*, Beijing, China, Sept. 5-7, 2013.
- (13) **Yong Sheng Zhao**, Elements for Integrated Nanophotonics Based on Organic One-Dimensional Nanocrystals. *ICMAT 2013*, Singapore, Jun. 30-Jul. 5, 2013.
- (12) **Yong Sheng Zhao**, Organic Nanophotonics. *The 7th China-Denmark Workshop for Self-assembled Molecular Electronic Nanosystems*, Huangshan, China, Apr. 15-19, 2013.
- (11) **Yong Sheng Zhao**, Controlled synthesis of organic one-dimensional nanomaterials and their applications in integrated nanophotonics. *The Annual meeting for the Asian CORE Program*, Pusan, Korea, Jan. 27-30, 2013.
- (10) **Yong Sheng Zhao**, Nanophotonic elements based on organic composite nanomaterials. *9th Annual Meeting of Organic Solids*, Yangzhou, China, Nov. 10-12, 2012.
- (9) **Yong Sheng Zhao**, Organic one-dimensional nanocrystals: promising elements for integrated nanophotonics. *Asia NANO*, Lijiang, China, Sept. 7-10, 2012.
- (8) **Yong Sheng Zhao**, Nanophotonics in low-dimensional Organic nanomaterials. *China-Singapore Bilateral Youth Symposium at the 28th Annual Meeting of Chinese Chemical Society*, Chengdu, China, Apr. 12-16, 2012.
- (7) **Yong Sheng Zhao**, Photonics based on organic low-dimensional materials. *3rd China NANO*, Beijing, China, Sept. 7-10, 2011.
- (6) **Yong Sheng Zhao**, Photonic and electronic properties of one-dimensional organic composite nanomaterials. *6th Sino-US Nano Forum*, Changchun, China, Jul. 1-4, 2011.
- (5) **Yong Sheng Zhao**, Low-dimensional organic materials: synthesis and photonic properties. *The Annual meeting for the Asian CORE Program*, Okazaki, Japan, Feb. 22-24, 2011. Feb. 22, 2011, Okazaki, Japan
- (4) **Yong Sheng Zhao**, Outcoupling modulations and photon-exciton interactions in organic nanowires. *27th Annual Meeting of Chinese Chemical Society*, Xiamen, China, Jun. 20-24, 2010.
- (3) **Yong Sheng Zhao**, Haizheng Zhong, Qibing Pei, Inorganic semiconductor and conjugated polymer composites for Gamma radiation detection. *SPIE Defense + Security*, Orlando, USA Mar. 16-20, 2008.



- (2) **Yong Sheng Zhao**, Haizheng Zhong, Qibing Pei, Polymer composites for radiation detection: diiodobenzene and light emitting polymer molecular solutions for Gamma detection. *MRS Conference*, Boston, USA, Nov. 26-30, 2007.
- (1) **Yong Sheng Zhao**, Jiannian Yao, Single crystalline organic nanotubes. *13th China-Japan Bilateral Symposium on Intelligent Electrophotonic Materials & Molecular Electronics*, Qingdao, China, Aug. 18-21, 2006.