

Shihe YANG, Professor, Chemistry Department, HKUST, HONG KONG. Fax: (852) 2358-1594

Education: B.Sc., Zhongshan University, 1982; Ph.D, Rice University, 1988

Academic Positions: Professor, HKUST, 2005-present; Associate Professor, HKUST, 1999-2005; Assistant Professor, HKUST, 1992-98; Research Associate, Univ. of Toronto (with John Polanyi, Nobel Laureate), 1989-92; Post-doc. Fellow, Argonne National Lab. (Cluster Group), 1988-89; Research Assistant, Rice Univ. (with Richard Smalley, Nobel Laureate), 1983-88

Awards and Honors: Ministry of Education Award for Research Excellence in Natural Science, First class, 2011; NSFC Young Investigator Award, 2004-2006; Robert A. Welch predoctoral fellowship (1985-1988), CGP postgraduate fellowship (1983-1984), Rice University

Service: Editorial Board Member: (1) Int. J. Nanotechnology, (2) Chinese Journal of Chemical Physics, (3) Open Condensed Matter Physics Journals; Referee for Nature Series Journals, J. Am. Chem. Soc., Angew Chem., Int. Ed., Nano Letters, Chem. Rev., Adv. Mater., etc.

Research: ~41 research grants, ~110 invited lectures, 8 patents, 1 edited book, >350 Int. Journal Articles (>10,000 citations), 22 conference papers; Current Interest: Nanomaterials; Energy generation/storage; Fullerenes and carbon materials; Soft molecular interfaces.

Representative Recent Publications:

- 1 “Significantly Enhanced Performance of Quantum Dot Sensitized Solar Cells by Linker Seeding Chemical Bath Deposition”, Keyou Yan, Wei Chen, **Shihe Yang**, *J. Phys. Chem. C* **117(1)**, 92-99 (2013).
- 2 “Dithiafulvenyl Unit as a New Donor for High-Efficiency Dye-Sensitized Solar Cells: Synthesis and Demonstration of a Family of Metal-Free Organic Sensitizers”, K. Guo, K. Yan, X. Lu, Y. Qiu, Z. Liu, J. Sun, F. Yan, W. Guo, **Shihe Yang**, *Org. Lett.* **14**, 2214-2217 (2012).
- 3 “Secondary Branching and Nitrogen Doping of ZnO Nanotetrapods: Building a Highly Active Network for Photoelectrochemical Water Splitting”, Yongcai Qiu, Keyou Yan, Hong Deng, **Shihe Yang**, *Nano Letters* **12(1)**, 407-413 (2012).
- 4 “Surfactant directed self-assembly of size-tunable mesoporous titanium dioxide microspheres and their application in quasi-solid state dye-sensitized solar cells”. Wei Chen, Yongcai Qiu, Keyou Yan, **Shihe Yang**, *J. Power Sources* **196(24)**, 10806-10816 (2011).
- 5 “A Double-layered Photoanode Made of TiO₂ Nanooctahedra and Agglutinate Mesoporous TiO₂ Microspheres for High Efficiency Dye Sensitized Solar Cell”, Keyou Yan, Yongcai Qiu, Wei Chen, Zhang Min, **Shihe Yang**, *Energy & Environmental Science* **4(6)**, 2168-2176 (2011).
- 6 “Double-layered Photoanodes from Variable-Size Anatase TiO₂ Nanospindles: A Promising Candidate for High-Efficiency Dye-Sensitized Solar Cells”, Yongcai Qiu, Wei Chen, **Shihe Yang**, *Angew. Chem., Int. Ed.* **49(21)**, 3675-3679 (2010).
- 7 “Synthesis of TiO₂ Nanospindles and Their Assembly into Nitride-Graphene Nanocomposites for Rechargeable Lithium Ion Batteries with High Cycling Performance”, Yongcai Qiu, Keyou Yan, Limin Jin, Hong Deng, Weishan Li, **Shihe Yang**, *ACS Nano*, **4(11)**, 6515-6526 (2010).
- 8 “In-Situ Fabrication of Inorganic Nanowire Arrays Grown from and Aligned on Metal Substrates”, Weixin Zhang, **Shihe Yang**, *Accounts of Chem. Res.* **42(10)**, 1617-1627 (2009).
- 9 “Hollow and Sn-filled Nanotubes of Single-Crystalline In(OH)₃ Grown by a Solution-Liquid-Solid-Solid Route”, Y. Fang, X. Wen, **Shihe Yang**, *Angew. Chem., Int. Ed.* **118**, 4771 (2006).
- 10 “Synthesis of Ultrathin Zinc Nanowires and Nanotubes by Vapor Transport”, Xiaogang Wen, Yueping Fang, **Shihe Yang**, *Angew. Chem., Int. Ed.* **44(23)**, 3562-3565 (2005).