

Naiqian Zhan

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Education Information

- 08/2010-present

PhD Candidate in Materials Chemistry, Department of Chemistry and Biochemistry, Florida State University

Supervisor: Prof. Hedi Mattoussi

- 09/2007-06/2010

M.S in Organic Chemistry, Central Laboratory of Applied Organic Synthesis, College of Chemistry, Jilin University

Supervisor: Prof. Yaoxian Li

- 09/2003-06/2007

B.E. in Pharmaceutical Engineering, School of Chemistry, Chemical Engineering & Materials, Heilongjiang University

Awards

- 04/2013, ACS poster award, 245th ACS National Meeting in New Orleans
- 09/2007-06/2010, Research Assistantship in Jilin University
- 06/2007, Excellent B.E. Graduate of Heilongjiang University
- 09/2006, 2nd Prize in Outstanding Student Scholarship, Heilongjiang University
- 09/2005, 2nd Prize in Outstanding Student Scholarship, Merit Student, Heilongjiang University
- 09/2004, 2nd Prize in Outstanding Student Scholarship, Merit Student, Heilongjiang University

Research Interest

- Design and synthesis of surface functionalized nanocrystals
- Application of QD-bioconjugates in biological system

Publications and Patents

1. **Naiqian Zhan**, Goutam Palui, Malak Safi, Xin Ji, Hedi Mattoussi, "Multidentate Zwitterionic Ligands Provide Compact and Highly Biocompatible Quantum Dots", *Journal of the American Chemical Society* 135 (2013) 13786-13795.
2. **Naiqian Zhan**, Goutam Palui, Henry Grise, Hengli Tang, Igor Alabugin, Hedi Mattoussi, "Combining Ligand Design with Photoligation to Provide Compact, Colloidally Stable, and Easy to Conjugate Quantum Dots" *ACS Appl. Mater. Interfaces*, 5 (2013), 2861–2869.
3. Fadi Aldeek, M. A. Habeeb Muhammed, Goutam Palui, **Naiqian Zhan**, Hedi Mattoussi, "Growth of Highly Fluorescent Polyethylene Glycol- and Zwitterion-Functionalized Gold Nanoclusters" *ACS Nano*, 7 (2013), 2509–2521.
4. Goutam Palui, Tommaso Avellini, **Naiqian Zhan**, Feng Pan, David Gray, Igor Alabugin, Hedi Mattoussi, "Photoinduced Phase Transfer of Luminescent Quantum Dots to Polar and Aqueous Media", *Journal of the American Chemical Society* 134 (2012) 16370-16378.
5. Chaoqun Zhang; Yapeng Li; Wei Wang; **Naiqian Zhan**; Ning Xiao; Shuai Wang; Yaoxian Li; Qingbiao Yang, "A novel two-nozzle electrospinning process for preparing microfiber reinforced pH-sensitive nano-membrane with enhanced mechanical property", *European Polymer Journal* 47 (2011) 2228-2233.
6. **Naiqian Zhan**, Yaoxian Li, Chaoqun Zhang, Yan Song, Hengguo Wang, Lei Sun, Qingbiao Yang,

Xia Hong, "A novel multinozzle electrospinning process for preparing superhydrophobic PS films with controllable bead-on-string/microfiber morphology", *Journal of Colloid and Interface Science* 345 (2010) 491-495.

7. Chaoqun Zhang, Qingbiao Yang, **Naiqian Zhan**, Lei Sun, Hengguo Wang, Yan Song, Yaoxian Li, "Silver nanoparticles grown on the surface of PAN nanofiber: Preparation, characterization and catalytic performance", *Colloids and Surfaces A*, 362 (2010) 58-64.

8. Chaoqun Zhang, Qingwen Liu, **Naiqian Zhan**, Qingbiao Yang, Yan Song, Lei Sun, Hengguo Wang, Yaoxian Li, "A novel approach to prepare silver chloride nanoparticles grown on the surface of PAN nanofibres via electrospinning combined with gas-solid reaction", *Colloids and Surfaces A*, 353 (2010) 64-68.

9. Yan Song, **Naiqian Zhan**, Miao Yu, Qingbiao Yang, Chaoqun Zhang, Hengguo Wang, Yaoxian Li, "Fabrication of poly(4-vinylpyridine) nanofiber and fluorescent poly(4-vinylpyridine)/porphyrin nanofiber by electrospinning", *Chemical Research in Chinese Universities*, 24 (2008) 722-725.

10. Yan Song, Yaoxian Li, **Naiqian Zhan**, Miao Yu, Qingbiao Yang, Chaoqun Zhang, "Fabrication of fluorescent porphyrin/polystyrene composite nanospheres by electrospinning", *Chemical Research in Chinese Universities* 26 (2010) 148-151.

11. Qingbiao Yang, Yan Song, Yaoxian Li, Yongqiang Wang, **Naiqian Zhan**, "Method for preparing multiple fluorescence-coded microspheres via high-voltage electrospinning", *China Patent* No 200810051127.

12. Qingbiao Yang, Yaoxian Li, Chaoqun Zhang, **Naiqian Zhan**, Yan Song, "Multi-spray head high-voltage electrostatic spinning equipment with electric field- shielding device", *China Patent* No 200910067599.