

QINGSHENG WANG

Mary Kay O'Connor Process Safety Center
Artie McFerrin Department of Chemical Engineering
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EDUCATION

- Ph.D. in Chemical Engineering** 2010
TEXAS A&M UNIVERSITY, College Station, TX (Expected)
- M.S. in Physical Chemistry (GPA 4.0/4.0)** 2005
ZHEJIANG UNIVERSITY, Hangzhou, China
- B.S. in Chemistry (with Honors)** 2003
ZHEJIANG UNIVERSITY, Hangzhou, China
Enrolled in a special program "National Science Training Center for Chemistry"

EXPERIENCE

Research Assistant

Mary Kay O'Connor Process Safety Center, Texas A&M University Present

Advisor: **Dr. M. S. Mannan**

- Integration of molecular modeling and chemical process safety
- Process safety management and quantitative risk analysis

Laboratory for Molecular Structure and Bonding, Texas A&M University 2005-2007

Advisor: **Dr. F. A. Cotton**

- Extended trinickel molecular wires with anthracene units and its luminescence
- Designed a serial of novel organic polypyridylamide compounds
- Synthesized linear Ni₃ and Co₃ chains cocooned by two long ligands

Institute of Physical Chemistry, Zhejiang University 2003-2005

- Constructed 2D NIR correlation spectroscopy using Matlab program
- Synthesized Cd_{1-x}Mn_xS nanorods and studied their optical properties
- Designed convenient methods to prepare transition metal sulfide nanocrystals

Institute of Catalysis, Zhejiang University 2002-2003

- Identified the interactions between small molecules using micro-calorimeter

Teaching Assistant

Department of Chemistry, Texas A&M University

- *Fundamentals of Chemistry*, CHEM102-502, 505, 508 Fall, 2006
- *Fundamentals of Chemistry*, CHEM102-522, 535, 561 Spring, 2007

Department of Chemistry, Zhejiang University

- *Engineering Chemistry* Fall, 2004

Assistant Engineer

- *Professional Internship*, Zhejiang Juhua Chemical Co. Ltd., China Summer, 2002

PUBLICATIONS (Authors in Cotton group are listed alphabetically.)

1. "Hydrothermal preparation and characterization of Cd_{0.9}Mn_{0.1}S nanorods", Q. S. Wang, Z. D. Xu, Q. L. Nie, L. H. Yue, W. X. Chen, *Solid State Commun.* **2004**, *130*, 607-611.
2. "In situ synthesis of Zn_xCd_{1-x}S nanorods by a hydrothermal route", Q. L. Nie, Q. L. Yuan, Q. S. Wang, Z. D. Xu, *J. Mater. Sci.* **2004**, *39*, 5611-5612.
3. "Characteristics and optical properties of Cd_{1-x}Mn_xS nanorods prepared through hydrothermal route", Q. S. Wang, Z. D. Xu, L. H. Yue, W. X. Chen, *Opt. Mater.* **2004**, *27*, 453-458.
4. "In situ growth of CdSe nanocrystals on carbon nanotubes through chemical vapor deposition method", H. Y. Yin, Z. D. Xu, Y. F. Zheng, Q. S. Wang, W. X. Chen, *Acta Phys.-Chim. Sinica*, **2004**, *20*, 1308-1312.
5. "Fabrication of transition metal sulfides nanocrystallites via an ethylenediamine assisted route", Q. S. Wang, Z. D. Xu, H. Y. Yin, Q. L. Nie, *Mater. Chem. Phys.* **2005**, *90*, 73-77.
6. "Study of assembling ZnO nanorods into dendritic crystal", H. Y. Yin, Z. D. Xu, Q. S. Wang, Y. F. Zheng, *Mater. Chem. Phys.* **2005**, *91*, 130-133.
7. "A trimetal chain cocooned by two heptadentate polypyridylamide ligands", F. A. Cotton, H. Chao, C. A. Murillo, Q. S. Wang, *Dalton Trans.* **2006**, 5416-5422.
8. "A tetranuclear nickel(II) cluster: bis[**m**₃-2,6-bis(methylamino)pyridine(2-)-[?]⁴N²:N¹, N⁶:N⁶]bis[**m**₃-2,6-bis(methylamino)pyridine(1-)-[?]³N¹:N²:N²]-dichloridotetranickel(II)", F. A. Cotton, C. A. Murillo, Q. S. Wang, *Acta Cryst.* **2007**, *E63*, m1905.
9. "Inserting sulfur-donor ligands in axial positions of an extended trinickel chain", F. A. Cotton, C. A. Murillo, Q. S. Wang, *Inorg. Chem. Commun.* **2007**, *10*, 1088-1090.
10. "Effect of axial anthracene ligands on the luminescence of trinickel molecular wires", F. A. Cotton, H. Chao, Z. Li, C. A. Murillo, Q. S. Wang, *J. Organomet. Chem.* **2007**, ASAP (Invited special issue dedicate to Professor Cotton).
11. "Symmetrical linear Co₃⁶⁺ chains cocooned by two polypyridylamide ligands: differences and similarities with open chains", F. A. Cotton, Z. Li, C. A. Murillo, Q. S. Wang, *Inorg. Chem.* **2007**, submitted.
12. "Unusual magnetic properties of an unsymmetrical trinickel chain", F. A. Cotton, C. A. Murillo, Q. S. Wang, *Polyhedron*, **2007**, submitted.
13. "Crystal structures and magnetic properties of a novel stable tri-nickel molecular wire", F. A. Cotton, C. A. Murillo, Q. S. Wang, **2007**, in preparation.

COMPUTER SKILLS

- Languages: MATLAB, C Program
- Systems: Windows, UNIX
- Packages: Cerius², Gaussion03, ChemOffice04, SHELXTL97

AFFILIATIONS

- American Chemical Society
- American Institute of Chemical Engineers

HONORS & AWARDS

- Invited referee for *Journal of Crystal Growth*
- *Phi Lambda Upsilon* Honor Society, Texas A&M University, 2005-Present
- Fellowship for distinguished students, Zhejiang University, 2000-2005
- "Hisun Fellowship" for graduate student, Zhejiang University, 2004
- Excellent thesis of Bachelor degree, Zhejiang University, 2003
- Second prize in *National Chemistry Competition*, Chinese Chemical Society, 1998