ZHIJIE WANG

Department of Chemistry

University of Michigan, Ann Arbor, Michigan

Address: 930 N University of Michigan, Ann Arbor, MI 48109-1055

Tel.: 307-343-0305 Email: zhijie@umich.edu or poche911@gmail.com

RESEARCH INTEREST:

The interest is in the area of solar cells, nano-materials, nano-devices, organic and organic/inorganic hybrid devices as well as dye sensitized devices.

WORK EXPERIENCE:

08/01/2009-03/31/2011:
Department of Chemistry and School of Energy Resources, University of Wyoming
Postdoc in the area of single crystals dye sensitized properties.
Advisor: Prof. Bruce Parkinson.

04/01/2011-05/23/2011:
Department of Chemical and Paper Engineering, Miami University at Oxford
Visiting scholar in the field of solid state dye sensitized solar cells.
Advisor: Prof. Lei Kerr.

05/23/2011----

Chemistry Department, University of Michigan

Postdoc in the area of dye sensitized solar cells

Advisor: Prof. Stephen Maldonado.

EDUCATION BACKGROUND:

09/01/2004-07/01/2009:

Institute of Semiconductors, Chinese Academy of Sciences, Beijing

Candidate for Ph. D degree in physical and chemical materials, with organic/inorganic hybrid and polymer solar cells as research interest

Advisor: Prof. Zhanguo Wang (Academician of CAS)

Vice advisor: Prof. Shengchun Qu

09/01/2000-07/01/2004:

Zhejiang University, Hangzhou

Bachelor of engineering degree in materials science and engineering

QUALIFICATION:

1. **Excellent innovative ability in the basic research in dye sensitized solar cells, design and fabrication of organic/inorganic hybrid and polymer photovoltaic devices and synthesis of nano-materials.**
2. **Excellent innovative ability in measurements on the structural, optical and photoelectric properties of nano-materials and hybrid materials as well as on the photovoltaic effect of solar cells.**
3. **Excellent background in the chemistry and physics.**
4. **Familiar with the working mechanism and fabrication processes of silicon and $CuInSe_2$ based solar cells.**
5. **Good cooperative and communication skills, strong ability to work as a part of team.**

ACADEMICAL SERVICE:

1. **June 2008, Organizing Committeeman of the MRS International Materials Research Conference, symposium D, Chongqing.**
2. **November 2006, Organizing Committeeman of the14th National Conference on Compound Semiconductors, Microwave and Photoelectric Devices, Beihai.**
3. **September 2005, Organizing Committeeman of the 11th International Conference on Defects-Recognition Imaging and Physics in Semiconductors, Beijing.**

Publications:

1. Influence of doping density on the dye sensitized photocurrent yields on TiO_2 rutile single crystals, ***Z.J. Wang***, M. T. Spitler and B. A. Parkinson (**Preparing**).

2. A simple method to get "maze" pattern on the TiO_2 rutile single crystal (001) surface, ***Z.J. Wang***, B.A. Parkinson et al. (**Preparing**).

3. Charge injection from Au nanoparticles to single crystal TiO_2, ***Z.J. Wang***, B.A. Parkinson et al. (**Preparing**).

4. Organic/inorganic hybrid solar cells based on SnS/SnO nanocrystals and MDMO-PPV, ***Z.J. Wang***, S.C. Qu, et al., **Acta Materialia,** 58 (2010) 4950

5. Influence of interface modification on the performance of polymer/Bi_2S_3 nanorods bulk heterojunction solar cells, ***Z.J. Wang***, S.C. Qu, et al., **Applied Surface Science**, 257 (2010) 4950.

6. The Application of SnS nanoparticles to bulk heterojunction solar cells，***Z.J. Wang***, S.C. Qu, et al., **Journal of Alloys and Compounds,** 482 (2009) 203.

7. The synthesis of MDMO-PPV capped PbS nanorods and their application in solar cells，***Z.J. Wang***, S.C. Qu, et al., **Current Applied Physics**, 9 (2009) 1175.

8. Synthesis of MDMO-PPV capped PbS quantum dots and their application to solar cells, ***Z.J. Wang***, S.C. Qu, et al., **Polymer**, 49 (2008) 4647

9. Hybrid bulk heterojunction solar cells from a blend of poly(3-hexylthiophene) and TiO_2 nanotubes, ***Z.J. Wang***, S.C. Qu, et al., **Applied Surface Science**, 255（2008） 1916

10. Solventless synthesis of Bi_2S_3 nanowires and their application to solar cells, ***Z.J. Wang***, S.C. Qu, et al., **Advanced Materials Research,** 26 (2007) 601

11. Photovoltaic and electroluminescence characters in hybrid ZnO and conjugated polymer bulk heterojunction devices, J.P. Liu, S.C. Qu, Y. Xu, Y. H, Chen, X.B. Zeng, ***Z.J. Wang*** , H.Y. Zhou, Z.G. Wang, **Chinese Physics Letter**, 24 （2007）1350

12. Effect of ultraviolet light on the hybrid zinc oxide polymer bulk heterojunction solar cells, J. P. Liu, S. C. Qu, Y. H. Chen, X. B. Zeng, ***Z. J. Wang,*** H. Y. Zhou, and Z. G. Wang, **Chinese Physics Letter**, 24 (2007）2070

13. Fabrication of ZnO and its enhancement of charge injection and transport in hybrid organic/inorganic light emitting devices, J.P. Liu, S.C. Qu, X.B. Zeng, Y. Xu, X.F. Gou, ***Z.J. Wang*** , H.Y. Zhou, Z.G. Wang, **Applied Surface Science**, 253（2007）7506

14. **Patent:** the preparation of MDMO-PPV capped PbS quantum dots and nanaorods as well as the fabrication of hybrid solar cells with them. ***Z. J. Wang***, Q. C. Qu et al., 200810057181.6

15. **Patent (USA)**: A new method to infiltrate polymer into porous TiO_2 film completely. L. Kerr and **Z. J. Wang.** (**Preparing**).