CURRICULUM VITAE

Tierui Zhang, **Professor**
Key Laboratory of Photochemical Conversion and Optoelectronic Materials
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EDUCATION

Dates	Institution	Degree
09/1998 – 08/2003	Jilin University College of Chemistry	Ph.D.
09/1994 – 08/1998	Jilin University College of Chemistry	B.S.

PROFESSIONAL EXPERIENCES

2009-present	Full Professor, Key Laboratory of Photochemical Conversion and Optoelectronic Materials, Technical Institute of Physics and Chemistry (TIPC), Chinese Academy of Sciences (CAS), Beijing, China
2007-2009	Research Associate, University of California, Riverside, CA, USA (with Prof. Yadong Yin and Prof. Yushan Yan)
2005-2007	Research Associate, University of Arkansas, Fayetteville, AR, USA (with Prof. Z. Ryan Tian)
2004-2005	NIH Research Associate, National Institute for Nanotechnology, NRC & University of Alberta, Edmonton, Canada (with Prof. Hicham Fenniri)
2003-2004	Alexander von Humboldt Fellow, Max Planck Institute of Colloids and Interfaces, Potsdam, Germany (with Prof. Markus Antonietti and Prof. Charl F. J. Faul)

AWARDS AND HONORS

2015	45th IUPAC World Chemistry Congress 2015 - Young Chemist Travel Award
2014	“Hundred Talents Program” Terminal Evaluation-Outstanding
2013	44th IUPAC World Chemistry Congress 2013 - Support for Young Chemists
2013	“Excellent Young Scholars” of the National Science Fund
2012	“Young Talents” of the Organization Department of the Central Committee
2011	“Best Oral Presentation Awards” at 13th National Youth Conference on Catalysis
2010	The 2nd Searching for Young Science Star, Silver Award in the Field of Material Science
2010	“Hundred Talents Program” Scholars of Chinese Academy of Sciences
2003	Alexander von Humboldt Fellowship (Germany)

RESEARCH INTERESTS

- ✓ Development of photocatalysts for water splitting, CO_2 reduction, pollutants degradation, and organic compounds conversion
- ✓ Development of heterogeneous nanocatalysts for the conversion of organic compounds

✓ Colloidal inorganic nanostructures: synthesis, surface modification, assembly, and biomaterial applications

PUBLICATIONS AND IMPACT

Publications: 97 papers in refereed SCI journals, including 3 in *Adv. Mater.* and 1 in *Adv. Funct. Mater.* (**two top journals in the field of Materials Science**), 3 in *Nano Lett.* (**top journal in the field of Nanotechnology**), 4 in *Angew. Chem. Int. Ed.* and 2 in *J. Am. Chem. Soc*. (**two top journals in the field of Chemistry**).

Total number of citations: > **3000; H-index impact factor**: **30**

SYNERGISTIC ACTIVITIES

Memberships:

Young Worker Committee of Chinese Chemical Society (CCS)-Committee member
Chinese Materials Research Society-Nano Material and Device Chapter-Committee member
Photocatalysis Professional Committee of Chinese Society for Imaging Science and Technology (CSIST)
International Academy of Electrochemical Energy Science (IAOEES)-Board committee member
The 5th China Youth Science and Technology Workers Association
Chinese Academy of Sciences China Youth Federation- The 4th session of the standing committee
Chinese Materials Research Scociety (C-MRS)
Chinese Chemical Society (CCS)
American Chemical Society (ACS)

Grant Proposal Reviewer:

National Natural Science Foundation of China, CAS-EPSRC Cooperation Project, Beijing Natural Science Foundation, National Energy Conservation Center, Nanjing 321 Talent Introduction Plans, Shandong Province Science Foundation for Excellent Youth Scholars, Zhejiang Province Natural Science Foundation China Postdoctoral Science Foundation

Journal Editor:

Associate Editor, ***Science Bulletin***	***2015-present***
Editor Board, ***Scientific Reports***	***2014-present***
Editor Board, ***Journal of Nanotechnology and Smart Materials***	***2015-present***
Editor Board, ***Journal of Materials Sciences and Applications***	***2015-present***
Editor Board, ***Journal of Nano Studies & Technology (IJNST)***	***2015-present***
Editor Board, ***International Journal of Carbon Nanotechnology***	***2014-present***
Editor Board, ***International Open Journal of Renewable & Sustainable Energy***	***2014-present***
Editor Board, ***Nano Open***	***2014-present***
Editor Board, ***Open Journal of Physical Chemistry***	***2012-present***
Editor Board, ***Nanoscience & Nanotechnology-AISA***	***2011-present***
Editor Board, ***Journal of Nanoscience Letters***	***2010-2011***

Journal Reviewer:

ACS Appl. Mater. Inter.; ACS Catal.; ACS Nano; Acta Phys-Chim. Sin.; Adv. Ener. Mater.; Adv. Funct. Mater.; Adv. Mater.; Adv. Mater. Sci. Eng.; AEMT2012; Appl. Phys. A-Mater. Sci. Process.; Appl. Surf. Sci.; Angew. Chem.; Biomater.; Can. J. Chem.; Carbon; Catal. Lett.; Catal. Sci. Tech.; Catal. Today; Chem. Asian J.; Chem. Bull.; Chem. Commun.; Chem. Eur. J.; Chem. J. Chin. Univ.; Chem. Mater.; Chem. Online; ChemPhysChem; ChemPlusChem; Chem. Rev.; Chem. Soc. Rev.; Chin. J. Catal.; Chin. J. Chem.; Chin. Sci.; Chin. Sci. Bull.; CrystEngComm; Curr. Nanosci.; Dalton Trans.; Electrochim.

Acta; Energy Environ. Sci.; Eur. J. Inorg. Chem.; Imaging Sci. Photochem.; Ind. Eng. Chem. Res.; Inorg. Chem.; Inorg. Chem. Commun.; Int. J. Hydrogen Energy; Int. J. Photoenergy; J. Am. Chem. Soc.; J. Alloy. Comp.; J. Appl. Polym. Sci.; J. Chem. Tech. Biotech.; J. Colloid Interface Sci.; J. Energy Chem.; J. Mater. Chem.; J. Mol. Catal. A: Chem.; J. Nanopart. Res.; J. Nanosci. Lett.; J. Nanosci. Nanotech.; J. Phys. Chem.; J. Phys. Chem. Solid; J. Phys. D; J. Mol. Catal. A; J. Phys. Chem.; J. Solid State Chem.; Langmuir; Mater. Res. Bull.; Mater. Sci. Eng. A; Mater. Lett; Mater. Sci. Eng. B; Micro. Meso. Mater.; Nano Energy; Nano Research; Nanoscale; Nanosci. Nanotech. Asia; Nanosci. Nanotech. Lett.; Nanotechnology; Nature Chem.; Nature Commun.; New J. Chem.; NPG Asia Mater.; Part. Part. Syst. Char.; Phys. Chem. Chem. Phys.; Phys. E; Polymer Inter.; Photochem. Photobiol.; RSC Adv.; Sci. Adv. Mater.; Sci. China Mater.; Sci. China Ser. B-Chem.; Sci. Tech. Rev.; Sci. Rep.; Sensor Actuat B-Chem; Small; Solid State Sci.; Soft Matter; Syth. Met.; Thin Solid Films; 2010 MRS Spring Meeting

MEDIA COVERAGE

1. "Light Triggered Spontaneous Assembly of Nanoparticles to Nanovesicles", *Materials Views*, June 18, **2014.**
2. "A Robust Graphene-supported Catalyst", *Materials Views*, December 12, **2013.**
3. "A Hot Dip before Swimming", *Science (*Editors' Choice*)*, **2007**, *317*, 1834**.**
4. "Nanotechnology Leads to Better Bone Implants", *ZDNET*, August 29, **2007.**
5. "Nanowire Coating May Aid Bone Implants", *United Press International*, August 28, **2007.**
6. "Nanowire Coating for Bone Implants, Stents", *Sciencedaily*, August 28, **2007.**
7. "Nanowire Coating for Bone Implants, Stents", *PHYSORG*, August 28, **2007.**
8. "Nanowire Coating May Aid Bone Implants", *NewsDaily*, August 28, **2007.**
9. "Nanowire Coating for Biocompatible Titanium Bone Implants", *AZONANO*, August 28, **2007.**
10. "Researchers Create Nanowire Coating for Bone Implants, Stents", *Medical Design Online*, August 27, **2007.**
11. "Nanowire Coating for Bone Implants, Stents", *Nanotechnology*, August 20, **2007.**
12. "Nanowire Coating for Bone Implants, Stents", *Scientific Frontline*, August 17, **2007.**
13. "New, Tough Paper Won't Burn", *Discovery*, September 25, **2006.**
14. "On the Nanopaper Trail", *Theengineer*, August 22, **2006.**
15. "Nanowire, a Fibrous Nanomaterial", *Technology News Daily*, August 22, **2006.**
16. "Nanowire-Paper Offers Strength, Flexibility", *PHYSORG*, August 22, **2006.**
17. "Nanowire-Paper Offers Strength, Flexibility", *Newswise*, August 21, **2006.**
18. "Microcups Made of Nanopaper", *ZDNET*, June 11, **2006.**

INVITED PRESENTATIONS

1. "Mesoporous silica for enhanced catalytic performances of nanocatalysts", International Symposium on Nanomaterials and Nanotechnology 2015, Beijing, China, September 1, **2015**.
2. "Mesoporous and hollow micro/nanostructured catalysts", ChinaNANO 2015 Young Scholars Symposium on Nano, Beijing, China, September 1, **2015**.
3. "Visible light-responsive semiconductor photocatalysts for efficient hydrogen production", 5th Young Scholars Symposium on Nano & New Energy Technology, Suzhou, China, August 29, **2015**.
4. "Semiconductor based photocatalysts for visible light-driven photocatalytic H_2 production", Asian Pacific Conference on Chemistry of Materials 2015 (APCCOM 2015), Beijing, China, August 19, **2015**.

5. "Utilization of mesoporous silica to efficiently enhance catalytic performances of nanocatalysts", IUPAC 45th World Chemistry Congress (IUPAC-2015), Busan, Korea, August 14, **2015**.
6. "Mesoporous and hollow micro/nanostructures", Jilin University, Zhuhai, China, August 6, **2015**.
7. "Design and performance control of visible light-driven inorganic semiconductor photocatalysts for hydrogen production", Chinese Photocatalysis Forum and Industry Conference, Chengdu, China, July 29, **2015**.
8. "Visible light-driven inorganic semiconductor photocatalysts for hydrogen production", The 15th National Youth Conference on Catalysis of China (15th NYCC), Hefei, China, July 22, **2015**.
9. "Critical roles of mesoporous silica on the enhanced catalytic performances of nanocatalysts", International Conference on Advanced Complex Inorganic Nanomaterials (ACIN 2015), Namur, Belgium, July 14, **2015**.
10. "Effective utilization of mesoporous silica to significantly improve catalytic performances of nanocatalysts", 8th International Conference on Materials for Advanced Technologies (ICMAT 2015), Singapore, July 2, **2015**.
11. "Mesoporous and hollow micro/nanostructures", Huazhong University of Science and Technology, Wuhan, China, June 26, **2015**.
12. "Mesoporous and hollow micro/nanostructures", Beijing Institute of Nanoenergy and Nanosystems, Chinese Academy of Sciences, Beijing, China, June 9, **2015**.
13. "Earth-abundant cocatalysts for semiconductor-based photocatalytic water splitting", International Workshop on Graphene and C_3N_4-based Photocatalysts (IWGCP 2015), Wuhan, China, June 7, **2015**.
14. "Mesoporous and hollow micro/nanostructured catalysts", Young Scholars Symposium on Matter Science in Beijing, Beijing, China, January 27, **2015**.
15. "Controllable preparation and applications of monolayer LDHs", The 3rd Golden Brick Forum of Chemistry and Materials 2014, Beijing, China, December 25, **2014**.
16. "Mesoporous and hollow micro/nanostructures", 2014 Photocatalysis Annual Meeting & Photocalysis Young Scientists Forum, Hangzhou, China, November 30, **2014**.
17. "Mesoporous and hollow micro/nanostructures", Hainan University, Haikou, China, October 26, **2014**.
18. "Mesoporous and hollow semiconductor photocatalysts for visible-light-driven hydrogen production", International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM2014), Haikou, China, October 25, **2014**.
19. "Highly robust two-dimensional sandwich-like graphene-based nanocomposite catalysts", China-Italy Bilateral Symposium on Graphene 2014, Dalian, China, September 20, **2014**.
20. "Visible-light-driven mesoporous semiconductor photocatalysts", The 2nd Chinese Young Chemical Physicists Forum, Guiyang, China, August 30, **2014**.
21. "Mesoporous and hollow micro/nanostructures", 2014 Youth Chemist Forum: Chemistry and Energy of Western Resources, Lanzhou, China, August 23, **2014**.
22. "Mesoporous and hollow micro/nanostructured visible-light-driven photocatalysts", The 13th Conference on Solid Sate Chemistry and Inorganic Synthesis, Changchun, China, August 17, **2014**.

23. "Two–dimensional thermal-stable catalytic system: encapsulation of nanocatalysts in mesoporous silica nanosheets through graphene oxides-mediated strategy", 5th International Conference on Nanotechnology: Fundamentals and Applications (ICNFA'14), Prague, Czech Republic, August 13, **2014**.

24. "Nanosized semiconductor photocatalysts for visible-light-driven H_2 evolution", The 29th CCS Congress, Beijing, China, August 7, **2014**.

25. "Mesoporous micro/nanostructure photocatalysts", The 29th CCS Congress, Beijing, China, August 6, **2014**.

26. "Inorganic semiconductor photocatalysts for visible-light-driven H_2 evolution", The 14th National Conference of Solar Energy Photochemistry and Photocatalysts, Haerbin, China, July 30, **2014**.

27. "Inorganic semiconductors for visible-light-driven H_2 evolution", *The 1st National Conference on Luminescent and Photoelectric Properties of Micro/nano Systems*, Changchun, China, July 25, **2014**.

28. "Semiconductor photocatalysts for visible-light-driven H_2 evolution", Chinese Materials Annual Meeting 2014, Chengdu, China, July 5, **2014**.

29. "Mesoporous and hollow visible-light-responsive semiconductor photocatalysts for water splitting", 5th International Symposium on Structure-Property Relationships in Solid State Materials (SPSSM-5), Qingdao, China, June 24, **2014**.

30. "Mesoporous and hollow micro/nanostructures", Lanzhou Institute of Chemical Physics, CAS, Lanzhou, China, June 20, **2014**.

31. "Mesoporous and hollow micro/nanostructures", Northwest Normal University, Lanzhou, China, June 19, **2014**.

32. "Mesoporous and hollow micro/nanostructures", Tianjing University, Lanzhou, China, June 4, **2014**.

33. "Highly robust nanocatalysts based on mesoporous and hollow micro/nanostructures", 7th World Congress on Particle Technology, Beijing, China, May 23, **2014**.

34. "Visible-light-driven semiconductor photocatalysts for hydrogen production", 7th World Congress on Particle Technology, Beijing, China, May 20, **2014**.

35. "Visible-light-response semiconductor photocatalysts for hydrogen production", EMN EAST MEETING (Energy Material Nanotechnology) 2014, Beijing, China, May 13, **2014**.

36. "Mesoporous and hollow micro/nanostructures", National Centor for Nanoscience and Technology, Beijing, China, May 5, **2014**.

37. "Semiconductor photocatalysts for efficient visible-light-driven H_2 evolution", International Symposium on Energy and Environmental Photocatalytic Materials, Wuhan China, March 23, **2014**.

38. "Semiconductor based visible-light-driven photocatalysts for hydrogen production", EnerParticle2013, Beijing, China, December 14, **2013**.

39. "Mesoporous and hollow micro/nanostructure catalysts", The National Academy of Sciences Material Chemical Branch Catalyst and Separation Technology Seminar, Ningbo, China, December 12, **2013**.

40. "Mesoporous and hollow micro/nanostructure catalysts", 2013 Nanocatalysis Youth Workshop, Suzhou, China, November 16, **2013.**

41. "Mesoporous and hollow micro/nanostructures", Beijing University of Technology, Beijing, China, November 1, **2013**.

42. "Facile hydrothermal synthesis of reduced graphene oxide/$Sn_2Nb_2O_7$ composites with enhanced visible light photocatalytic activity", 6th Asia-Pacific Congress on Catalysis (APCAT-6), Taibei, Taiwan, October 14, **2013.**

43. "Semiconductor based visible-light photocatalysts for hydrogen evolution", 5th World Hydrogen Technologies Convention (WHTC 2013), Shanghai, China, September 28, **2013**.

44. “Mesoporous and hollow micro/nanostructures”, Ocean University of China, Qiangdao, China, September 25, **2013**.

45. “Morphology controlled semiconductor based photocatalysts with high efficiency”, IUMRS-ICAM 2013 International Conference on Advanced Materials, Qingdao, China, September 24, **2013**.

46. “Mesoporous and hollow micro/nanostructures for highly efficient catalysis”, IUMRS-ICAM 2013 International Conference on Advanced Materials, Qingdao, China, September 24, **2013**.

47. “Mesoporous and hollow micro/nanostructures for highly efficient catalysis”, EMN EAST MEETING (Energy Material Nanotechnology) 2013, Beijing, China, September 9, **2013**.

48. “Nanocatalysis and nanobiology”, 1st Workshop on Functional Composite Materials, Wuxi, China, August 23, **2013**.

49. “Facets controlled photocatalysts with high efficiency”, 13th China Photochemistry Conference, Xi'an, China, August 8, **2013**.

50. “Facets controlled photocatalysts”, Chinese Photocatalysis Forum and Industry Conference, Beijing, China, August 1, **2013**.

51. “Facets controlled photocatalysts with high efficiency”, The 14th National Youth Conference on Catalysis of China, Changchun, China, July 29, **2013**.

52. “Mesoporous and hollow micro/nanostructures”, Beijing Normal University, Beijing, China, July 10, 2013.

53. “Mesoporous and hollow nanocatalysts”, ICMAT 2013 7th International Conference on Materials for Advanced Technologies, Singapore, July 1, **2013**.

54. “Facet dependent photocatalysts”, 2013 Symposium on Photocatalysis, Beijing, China, April 20, **2013**.

55. “Facets controlled photocatalysts with high efficiency”, NCNST-UCL Forum on Materials, Catalysis and Energy, Beijing, China, March 19, 2013.

56. “Mesoporous and hollow micro/nanostructures”, Tsinghua University, Beijing, China, December 7, **2012**.

57. “Mesoporous and hollow micro/nanostructures”, Beijing University of Chemical Technology, Beijing, China, November 22, **2012**.

58. “Mesoporous and hollow micro/nanostructures”, Peking University, Beijing, China, November 21, **2012**.

59. “The shape effect of visible-light-driven metal oxide semiconductor photocatalysts”, The 13th National Conference on Solar Energy Photochemistry & Photocatalysis, Wuhan, China, October 27, **2012**.

60. “Self-templating method to porous and hollow nanocatalysts”, 1st International Conference on Emerging Advanced Nanomaterials 2012 (ICEAN-2012), Brisbane, Australia, October 24, **2012**.

61. “Graphene/niobate nanocomposite visible-light photocatalysts for solar water splitting hydrogen production”, Sino-Deutsch Symposium GZ842 on pi-Structured Polymers and Carbon Nanomaterials for Energy Applications, Beijing, China, September 5, **2012**.

62. “The shape-controlled synthesis of nano-sized photocatalysts”, The 1st Chinese Young Chemical Physicists Forum, Guiyang, China, July 28, **2012**.

63. “The shape-controlled synthesis of nano-sized photocatalysts”, Conference on Solid State Chemistry and Inorganic Synthesis (CSSCIS-2012), Qingdao, China, July 1, **2012**.

64. “The shape-controlled synthesis of mesoporous and hollow micro/nanomaterials and their catalytic performances”, University of Science and Technology of China, Hefei, China, April 27, **2012**.

65. “Mesoporous and hollow micro/nanostructures”, The 28th CCS Congress, Chengdu, China, April 15, **2012**.

66. "Facet-dependent highly efficient photocatalysis of inorganic semiconductors", The 18th China-Japan Bilateral Symposium on Intelligent Electrophotonic Materials and Molecular Electronics (SIEMME' 18), Tianjin, China, September 17, **2011**.

67. "The self-templating method for yolk-shell mesoporous and hollow micro/nanostructures and the study for their catalytic performances", 11th Conference on Solid State Chemistry and Inorganic Synthesis joint with 2nd Dalton Transactions International Symposium, Shanghai, China, November 15, **2010**.

68. "Self-templating approach to porous and hollow silica nanostructures", The 27th CCS Congress, Xiamen, China, June 22, **2010**.

69. "Design, synthesis, and application of functional nanomaterials", University of Science and Technology of China, Hefei, China, January 5, **2009**.

PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Yufei Zhao, Guangbo Chen, Tong Bian, Chao Zhou, Geoffrey I.N. Waterhouse, Li-Zhu Wu, Chen-Ho Tung, Lorna J. Smith, Dermot O'Hare and **Tierui Zhang***, "Defect-rich ultrathin ZnAl-layered double hydroxide nanosheets for efficient photoreduction of CO_2 to CO with water", *Adv. Mater.*, **2015**, Accepted.

2. Yong Peng, Lu Shang, Yitao Cao, Qing Wang, Yufei Zhao, Chao Zhou, Tong Bian, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Effects of surfactants on visible-light-driven photocatalytic hydrogen evolution activities of $AgInZnS_9$ nanorods", *Appl. Surf. Sci.*, **2015**, doi:10.1016/j.apsusc.2015.08.025. (Invited Article in a Special Issue)

3. Tong Bian, Chao Wang, Zhenda Lu, Renguo Xie, Qingzheng Yang, Li-Zhu Wu, Chen-Ho Tung, Zhuang Liu, Yadong Yin and **Tierui Zhang***, "A versatile 'click chemistry' route to size-restricted, robust, and functionalizable hydrophilic nanocrystals", *Small*, **2015**, *11 (14)*, 1644-1648. (Front Cover article)

4. Na Tian, Hongwei Huang*, Chengyin Liu, Fan Dong, **Tierui Zhang**, Xin Du, Shixin Yu and Yihe Zhang*, "In situ co-pyrolysis fabrication of CeO_2/g-C_3N_4 n-n type heterojunction for synchronously promoting photo-induced oxidation and reduction properties", *J. Mater. Chem. A*, **2015**, *3 (33)*, 17120-17129

5. Chengyin Liu, Hongwei Huang*, Xin Du, **Tierui Zhang**, Na Tian, Yuxi Guo and Yihe Zhang*, "In situ co-crystallization for fabrication of g-C_3N_4/Bi_5O_7I heterojunction for enhanced visible-light photocatalysis", *J. Phys. Chem. C*, **2015**, *119 (30)*, 17156-17165.

6. Yong Peng, Lu Shang, Yitao Cao, Geoffrey Waterhouse, Chao Zhou, Tong Bian, Zhenda Lu, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Copper (I) cysteine complexes: efficient earth-abundant oxidation Co-catalysts for visible light-driven photocatalytic H_2 production", *Chem. Commun.*, **2015**, *51 (63)*, 12556-12559.

7. Hongwei Huang*, Xiaowei Li, Jinjian Wang, Fan Dong*, Paul K. Chu, **Tierui Zhang** and Yihe Zhang*, "Anionic group self-doping as a promising strategy: band-gap engineering and multi-functional applications of high-performance CO_3^{2-}-doped $Bi_2O_2CO_3$", *ACS Catal.* **2015**, *5 (7)*, 4094-4103.

8. Yuxi Guo, Hongwei Huang*, Ying He, Na Tian, **Tierui Zhang**, Paul K. Chu, Qi An and Yihe Zhang*, "In situ crystallization for fabrication of core-satellites structured BiOBr-CdS heterostructure with an excellent visible-light-responsive photoreactivity", *Nanoscale*, **2015**, *7 (27)*, 11702-11711.

9. Chenhui Meng, Zhaoyue Liu*****, **Tierui Zhang** and Jin Zhai, "Layered MoS_2 nanoparticles on TiO_2 nanotubes by a photocatalytic strategy for use as high-performance electrocatalysts in hydrogen evolution reactions", *Green Chem.*, **2015**, *17 (12)*, 2764-2768.

10. Yinhu Cao, Yitao Cao, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mechanism study of Au nanoparticle functionalized plasmonic photocatalyst", *Imaging Sci. Photochem.*, **2015**, Accepted. (Invited Article in a Special Issue)

11. Yufei Zhao, Qing Wang, Tong Bian, Huijun Yu, Hua Fan, Chao Zhou, Li-Zhu Wu, Chen-Ho Yung, Dermot O'Hare and **Tierui Zhang***, "Ni^{3+} doped monolayer layered double hydroxide nanosheets as efficient electrodes for supercapacitors", *Nanoscale*, **2015**, *7 (16)*, 7168-7173.

12. Xing Huang, Yongqiang Yu, Jing Xia, Hua Fan, Lei Wang, Marc Gerorg Willinger*, Xiaoping Yang, Yang Jiang, **Tierui Zhang** and Xiangmin Meng*, "Ultraviolet photodetectors with high photosensitivity based on type-II ZnS/SnO_2 core/shell heterostructured ribbons", *Nanoscale*, **2015**, *7 (12)*, 5311-5319. (2015 Hot Papers in Nanoscale)

13. Yong Peng, Lu Shang, Tong Bian, Yufei Zhao, Chao Zhou, Huijun Yu, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Flower-like CdSe ultrathin nanosheet assemblies for enhanced visible-light-driven photocatalytic H_2 production", *Chem. Commun.*, **2015**, *51*, 4677-4680.

14. Zi Li, Huijun Yu, Tong Bian, Yufei Zhao, Chao Zhou, Lu Shang, Yanhui Liu, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Highly luminescent nitrogen-doped carbon quantum dots as effective fluorescent probes for mercuric and iodide ions", *J. Mater. Chem. C*, **2015**, *3 (9)*, 1922-1928.

15. Hongwei Huang*, Jinjian Wang, Fan Dong*, Yuxi Guo, Na Tian, Yihe Zhang* and **Tierui Zhang**, "Highly efficient $Bi_2O_2CO_3$ single-crystal lamellas with dominantly exposed {001} facets", *Cryst. Growth Des.*, **2015**, *15 (2)*, 534-537.

16. Na Tian, Hongwei Huang*, Ying He, Yuxi Guo, **Tierui Zhang** and Yihe Zhang*, "Mediator-free direct Z-scheme photocatalytic system: $BiVO_4$/g-C_3N_4 organic-inorganic hybrid photocatalyst with highly efficient visible-light-induced photocatalytic activity", *Dalton Trans.*, **2015**, *44 (9)*, 4297-4307.

17. Hongwei Huang*, Xiaowei Li, Xu Han, Na Tian, Yihe Zhang* and **Tierui Zhang**, "Moderate band-gap-broadening induced high separation of electron-hole pairs in Br substituted BiOI: a combined experimental and theoretical investigation", *Phys. Chem. Chem. Phys.*, **2015**, *17 (5)*, 3673-3679.

18. Lin Li, Zhaoyue Liu, Qianqian Zhang, Chenhui Meng, **Tierui Zhang** and Jin Zhai, "Underwater superoleophobic porous membrane based on hierarchical TiO_2 nanotubes: multifunctional integration of oil-water separation, flow-through photocatalysis and self-cleaning", *J. Mater. Chem. A*, **2015**, *3 (3)*, 1279-1286.

19. Songbo Wang, Xiangwen Zhang, Lun Pan, Feng-Min Zhao, Ji-Jun Zou, **Tierui Zhang** and Li Wang, "Controllable sonochemical synthesis of $Cu_2O/Cu_2(OH)_3NO_3$ composites toward synergy of adsorption and photocatalysis", *Appl. Catal. B: Environ.*, **2015**, *164*, 234-240.

20. Ranran Cao, Hongwei Huang*, Na Tian, Yihe Zhang*, Yuxi Guo and **Tierui Zhang**, "Novel Y doped Bi_2WO_6 photocatalyst: hydrothermal fabrication, characterization and enhanced visible-light-driven photocatalytic activity for Rhodamine B degradation and photocurrent generation", *Mater. Charact.*, **2015**, *101*, 166-172.

21. Lu Shang, Tong Bian, Baihui Zhang, Donghui Zhang, Li-Zhu Wu, Chen-Ho Tung, Yadong Yin* and **Tierui Zhang***, "Graphene-supported ultrafine metal nanoparticles encapsulated by mesoporous silica: a robust catalyst", *Angew. Chem. Int. Ed.*, **2014**, 5*3 (1)*, 250-254. (Hot paper and Inside Cover article, Highlighted by Materials Views)

22. Tong Bian, Lu Shang, Huijun Yu, Maria Teresa Perez, Li-Zhu Wu, Chen-Ho Tung, Zhihong Nie*, Zhiyong Tang* and **Tierui Zhang***, "Spontaneous organization of inorganic nanoparticles into nanovesicles triggered by UV light", *Adv. Mater.*, **2014**, *26 (32)*, 5613-5618. (Inside Cover article, Highlighted by Materials Views)

23. Chao Zhou, Yufei Zhao, Lu Shang, Yinhu Cao, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Facile preparation of black Nb^{4+} self-doped $K_4Nb_6O_{17}$ microspheres with high solar absorption and enhanced photocatalytic activity", *Chem. Commun.*, **2014**, *50 (67)*, 9554-9556.

24. Cheng Ma, Tong Bian, Sheng Yang, Changhui Liu, **Tierui Zhang**, Jinfeng Yang, Yinhui Li, Jishan Li*, Ronghua Yang and Weihong Tan, "Fabrication of versatile cyclodextrin-functionalized upconversion luminescence nanoplatform for biomedical imaging", *Anal. Chem.*, **2014**, *86 (13)*, 6508-6515.

25. Lianlian Liu, Song Guo, Jie Ma, Kejing Xu, Jianzhang Zhao* and **Tierui Zhang***, "Broadband visible-light-harvesting trans-bis(alkylphosphine) platinum(II)-alkynyl complexes with singlet energy transfer between bodipy and naphthalene diimide ligands", *Chem. Eur. J.*, **2014**, *20 (44)*, 14282-14295. (Hot paper and Inside Cover article)

26. Oudjaniyobi Simalou, Ran Lu*, Pengchong Xue, Peng Gong and **Tierui Zhang***, "C3-symmetrical cyano-substituted triphenylbenzenes for organogels and organic nanoparticles with controllable fluorescence and aggregation-induced emission", *Eur. J. Org. Chem.*, **2014**, *2014 (14)*, 2907-2916.

27. Huijun Yu, Yufei Zhao, Chao Zhou, Lu Shang, Yong Peng, Li-Zhu Wu, Yinhu Cao, Chen-Ho Tung and **Tierui Zhang***, "Carbon quantum dots/TiO_2 composites for efficient photocatalytic hydrogen evolution", *J. Mater. Chem. A*, **2014**, *2 (10)*, 3344-3351. (Inside Cover article)

28. Lun Pan, Ji-Jun Zou*, **Tierui Zhang**, Songbo Wang, Zhe Li, Li Wang and Xiangwen Zhang, "Cu_2O film via hydrothermal redox approach: morphology and photocatalytic performance", *J. Phys. Chem. C*, **2014**, *118 (30)*, 16335-16343.

29. Chao Zhou, Lu Shang, Huijun Yu, Tong Bian, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous plasmonic Au-loaded Ta_2O_5 nanocomposites for efficient visible light photocatalysis", *Catal. Today*, **2014**, *225*, 158-163. (Invited Article in a Special Issue)

30. Dong-Hui Zhang, Lu Shang, Jun Shen, Zhan Shi, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "A mild one-step solvothermal route to truncated octahedral magnetite crystals", *Particuology*, **2014**, *15*, 51-55. (Invited Article in a Special Issue)

31. Jingjing Wu, Chao Zhou, Yufei Zhao, Lu Shang, Tong Bian, Lei Shao, Feng Shi, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "One-pot hydrothermal synthesis and photocatalytic hydrogen evolution of pyrochlore type $K_2Nb_2O_6$", *Chin. J. Chem.*, **2014**, *32 (6)*, 485-490. (Invited Article in a Special Issue, most accessed papers in Top 15 in February, 2014)

32. Baihui Zhang, Quan Zhou, Tong Bian, Huijun Yu, Hua Fan, Zhongwei Niu, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Synthesis of triangular gold nanoplates mediated by tobacco mosaic virus", *Imaging Sci. Photochem.*, **2014**, *32 (2)*, 157-162. (Invited Article in a Special Issue, Front Cover article)

33. Pengchong Xue*****, Qiuxia Xu, Peng Gong, Chong Qian, Zhenqi Zhang, Junhui Jia, Xin Zhao, Ran Lu*****, Aimin Ren and **Tierui Zhang**, "Two-component gel of D-π-A-π-D carbazole donor and fullerene acceptor", *RSC Adv.*, **2013**, *3 (48)*, 26403-26411.

34. Chao Zhou, Yufei Zhao, Tong Bian, Lu Shang, Huijun Yu, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Bubble template synthesis of $Sn_2Nb_2O_7$ hollow spheres for enhanced visible-light-driven photocatalytic hydrogen production", *Chem. Commun.*, **2013**, *49*, 9872-9874.

35. Jing liu, Zhaoyue Liu*****, **Tierui Zhang**, Jin Zhai***** and Lei Jiang, "Low-temperature crystallization of anodized TiO_2 nanotubes at solid/gas interface and their photoelectrochemical properties", *Nanoscale*, **2013**, *5 (13)*, 6139-6144.

36. Xing Huang, Lu Shang, Shu Chen, Jing Xia, Xiaopeng Qi, Xuecong Wang, **Tierui Zhang** and Xiang-Min Meng*****, "Type-II ZnO nanorod/SnO_2 nanoparticles array: structure, optical property and photocatalytic activity characterization", *Nanoscale*, **2013**, *5 (9)*, 3828-3833.

37. Lu Shang, Chao Zhou, Tong Bian, Huijun Yu, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Facile synthesis of hierarchical $ZnIn_2S_4$ submicrospheres composed of ultrathin mesoporous nanosheets as a highly efficient visible-light-driven photocatalyst for H_2 production", *J. Mater. Chem. A*, **2013**, *1 (14)*, 4552-4558.

38. Pengchong Xue*****, Ran Lu*****, Peng Zhang, Junhui Jia, Qiuxia Xu, **Tierui Zhang**, Makoto Takafuji and Hirotaka Ihara, "Amplifying emission enhancement and proton response in a two-component gel", *Langmuir*, **2013**, *29 (1)*, 417-425.

39. Zhaoyue Liu*****, Zhiying Hu, Hanchuan Huang, Qianqian Zhang, **Tierui Zhang**, Jin Zhai***** and Lei Jiang, "Heterogeneous 3-D nanotubular arrays of CdS-TiO_2: efficient collections of reflection light for enhanced photoelectric output", *J. Mater. Chem.*, **2012**, *22 (41)*, 22120-22125.

40. Donghui Zhang, Chao Zhou, Zhenhua Sun, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Magnetically recyclable nanocatalysts (MRNCs): a versatile integration of high catalytic activity and facile recovery", *Nanoscale*, **2012**, *4 (20)*, 6244-6255. (Invited Review)

41. Feng Ye, Weiwei Hu, **Tierui Zhang***, Jun Yang* and Yulong Ding, "Enhanced electrocatalytic activity of Pt-nanostructures prepared by electrodeposition using poly(vinyl pyrrolidone) as a shape-control agent", *Electrochim. Acta*, **2012**, *83*, 383-386.

42. Yunhui Liang, Lu Shang, Tong Bian, Chao Zhou, Donghui Zhang, Huijun Yu, Haitao Xu, Zhan Shi, **Tierui Zhang***, Li-Zhu Wu and Chen-Ho Tung, "Shape-controlled synthesis of polyhedral 50-facet Cu_2O microcrystals with high-index facets", *CrystEngComm*, **2012**, *14 (13)*, 4431-4436.

43. Baihui Zhang, Hua Fan, Tong Bian, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Synthesis of mesoporous hollow inorganic micro-/nanostructures via self-templating methods", *Chem. J. Chinese U.*, **2013**, *34 (1)*, 1-14. (Invited Review)

44. Wenjun Dong*, Xuebin Wang, Bingjie Li, Lina Wang, Benyong Chen, Chaorong Li, Xiao Lia, **Tierui Zhang*** and Zhan Shi, "Hydrothermal synthesis and structure evolution of hierarchical cobalt sulfide nanostructures", *Dalton Trans.*, **2011**, *40 (1)*, 243-248.

45. Lina Wang, Yingying Zheng, Xiaoyun Li, Wenjun Dong*, Weihua Tang, Benyong Chen, Chaorong Li*, Xiao Li, **Tierui Zhang*** and Wei Xu, "Nanostructured porous ZnO film with enhanced photocatalytic activity", *Thin Solid Films*, **2011**, *519 (16)*, 5673-5678.

46. Yongxing Hu, Qiao Zhang, James Goebl, **Tierui Zhang*** and Yadong Yin*, "Control over the permeation of silica nanoshells by surface-protected etching with water", *Phys. Chem. Chem. Phys.*, **2010**, *12 (38)*, 11836-11842.

47. Ying Zhang, Bin Deng, **Tierui Zhang***, Daming Gao and An-Wu Xu*, "Shape effects of Cu_2O polyhedral microcrystals on photocatalytic activity", *J. Phys. Chem. C*, **2010**, *114 (11)*, 5073-5079.

48. **Tierui Zhang**, Shaoqin Liu, Dirk G. Kurth* and Charl F. J. Faul*, "Organized nanostructured complexes of polyoxometalates and surfactants that exhibit photoluminescence and electrochromism", *Adv. Funct. Mater.*, **2009**, *19 (4)*, 642-652.

49. **Tierui Zhang**, Judith Brown, Richard J. Oakley and Charl F. J. Faul*, "Towards functional nanostructures: ionic self-assembly of polyoxometalates and surfactants", *Curr. Opin. Colloid Interface Sci.*, **2009**, *14 (2)*, 62-70. (Invited Review)

50. **Tierui Zhang**, Qiao Zhang, Jianping Ge, James Goebl, Minwei Sun, Yushan Yan, Yi-Sheng Lin, Chinglin Chang, Jinghua Guo and Yadong Yin*, "A self-templated route to hollow silica microspheres", *J. Phys. Chem. C*, **2009**, *113 (8)*, 3168-3175.

51. Jishan Li, **Tierui Zhang**, Jianping Ge, Yadong Yin and Wenwan Zhong*, "Fluorescence signal amplification by cation exchange in ionic nanocrystals", *Angew. Chem. Int. Ed.*, **2009**, *48 (9)*, 1588-1591.

52. Shouyan Wang, Jining Xie, **Tierui Zhang** and Vijay K. Varadan*, "Silver decorated gamma-manganese dioxide nanorods for alkaline battery cathode", *J. Power Sou.*, **2009**, *186 (2)*, 532-538.

53. **Tierui Zhang**, Jianping Ge, Yongxing Hu, Qiao Zhang, Shaul Aloni and Yadong Yin*, "Formation of hollow silica colloids through a spontaneous dissolution-regrowth process", *Angew. Chem. Int. Ed.*, **2008**, *47 (31)*, 5806-5811.

54. Qiao Zhang, **Tierui Zhang**, Jianping Ge and Yadong Yin*, "Permeable silica shell through surface-protected etching", *Nano Lett.*, **2008**, *8 (9)*, 2867-2871.

55. Jianping Ge, Qiao Zhang, **Tierui Zhang** and Yadong Yin*, "Core-satellite nanocomposite catalysts protected by a porous silica shell: controllable reactivity, high stability and magnetic recyclability", *Angew. Chem. Int. Ed.*, **2008**, *47 (46)*, 8924-8928.

56. Yongxing Hu, Jianping Ge, **Tierui Zhang** and Yadong Yin*, "A blown film process to disk-shaped polymer ellipsoids", *Adv. Mater.*, **2008**, *20 (23)*, 4599-4602.

57. Jared M. Ashcroft, Weiwei Gu, **Tierui Zhang**, Steven M. Hughes, Keith B. Hartman, Cristina Hofman, Antonis Kanaras, David Kilcoyne, Mark Le Gros, Yadong Yin, Paul Alivisatos and Carolyn A. Larabell*, "TiO_2 nanoparticles as a soft X-ray molecular probe", *Chem. Commun.*, **2008**, *21*, 2471-2473.

58. Jianping Ge, Yongxing Hu, **Tierui Zhang**, Tuan Huynh and Yadong Yin*, "Self-assembly and field-responsive optical diffractions of superparamagnetic colloids", *Langmuir*, **2008**, *24 (7)*, 3671-3680.

59. Yongxing Hu, Jianping Ge, Donna Lim, **Tierui Zhang** and Yadong Yin*, "Size-controlled synthesis of highly water-soluble silver nanocrystals", *J. Solid State Chem.*, **2008**, *181 (7)*, 1524-1529. (Invited Article in Special Issue)

60. **Tierui Zhang**, Jianping Ge, Yongxing Hu and Yadong Yin*, "A general approach for transferring hydrophobic nanocrystals into water", *Nano Lett.*, **2007**, *7 (10)*, 3203-3207. (Highlighted in *Science* as "Editors' Choice")

61. **Tierui Zhang**, Wenjun Dong, Roland N. Njabon, Quincy Anderson and Z. Ryan Tian*, "Kinetically probing site-specific heterogeneous nucleation and hierarchical growth of nanobranches", *J. Phys. Chem. C*, **2007**, *111 (37)*, 13691-13695.

62. Wenjun Dong, **Tierui Zhang**, Joshua Epstein, Lisa Cooney, Hong Wang, Yanbin Li, Yingbing Jiang, Andrew Cogbill and Z. Ryan Tian*, "Multifunctional nanowire bioscaffolds on titanium", *Chem. Mater.*, **2007**, *19 (18)*, 4454-4459. (Highlighted in *ZDNET*, *NEWSWISE*, *PHYSORG*, *DISCOVERSY*, *etc*)

63. Mary Keeter-Brewer, **Tierui Zhang**, Wenjun Dong, Michael Rutherford and Z. Ryan Tian*, "Future approaches of nanomedicine in clinical science", *Med. Clin. N. Am.*, **2007**, *91 (5)*, 963-1016. (Invited Review)

64. Jianping Ge, Yongxing Hu, **Tierui Zhang** and Yadong Yin*, "Superparamagnetic composite colloids with anisotropic structures", *J. Am. Chem. Soc.*, **2007**, *129 (29)*, 8974-8975.

65. Yongxing Hu, Jianping Ge, Yugang Sun, **Tierui Zhang** and Yadong Yin*, "A self-templated approach to TiO_2 microcapsules", *Nano Lett.*, **2007**, *7 (6)*, 1832-1836.

66. **Tierui Zhang**, Wenjun Dong, Mary Keeter-Brewer, Roland N. Njabon and Z. Ryan Tian*, "Site-specific nucleation and growth kinetics in hierarchical nanosyntheses of branched ZnO crystallites", *J. Am. Chem. Soc.*, **2006**, *128 (33)*, 10960-10968.

67. **Tierui Zhang**, Wenjun Dong, Jay Kasbohm, Vijay K Varadan and Z. Ryan Tian*, "Design and hierarchical synthesis of branched heteromicrostructures", *Smart Mater. Struct.*, **2006**, *15 (2)*, N46-N50.

68. Wenjun Dong, **Tierui Zhang**, Michelle McDonald, Carmen Padilla, Joshua Epstein and Z. Ryan Tian*, "Biocompatible nanofiber scaffolds on metal for controlled release and cell colonization", *Nanomed.-Nanotech. Biol. Med.*, **2006**, *2 (4)*, 248-252.

69. Wenjun Dong, Andrew Cogbill, **Tierui Zhang**, Samrat Ghosh and Z. Ryan Tian*, "Multifunctional, catalytic nanowire membranes and the membrane-based 3D devices", *J. Phys. Chem. B*, **2006**, *110 (34)*, 16819-16822. (Highlighted in *ZDNET*, *PHYSORG*, *NewsDaily*, *etc*)

70. **Tierui Zhang**, Christian Spitz, Markus Antonietti and Charl F. J. Faul*, "Highly photoluminescent polyoxometaloeuropate-surfactant complexes by ionic self-assembly", *Chem. Eur. J.*, **2005**, *11 (3)*, 1001-1009.

71. **Tierui Zhang**, Ran Lu*, Hongyu Zhang, Pengchong Xue, Wei Feng, Xinli Liu, Bing Zhao, Yingying Zhao, Tiejin Li and Jiannian Yao, "Highly ordered photoluminescent self-assembled films based on polyoxotungstoeuropate complex Na-9[EuW10O36]", *J. Mater. Chem.*, **2003**, *13 (3)*, 580-584.

72. **Tierui Zhang**, Ran Lu*, Xinli Liu, Yingying Zhao, Tiejin Li and Jiannian Yao, "Photochromic polyoxotungstoeuropate K-12[EuP5W30O110]/polyvinylpyrrolidone nanocomposite films", *J. Solid State Chem.*, **2003**, *172 (2)*, 458-463.

73. **Tierui Zhang**, Wei Feng, Ran Lu*, Chunyan Bao, Xintong Zhang, Tiejin Li, Yingying Zhao and Jiannian Yao, "Self-assembled 18-molybdophosphate/dioctadecyldimethylammonium composite superlattice thin films with photochromic properties", *Mater. Chem. Phys.*, **2003**, *78 (1)*, 116-121.

74. Wei Feng, **Tierui Zhang**, Jun Liu, Ran Lu*, Yingying Zhao and Jiannian Yao, "Ultrasound-induced change of microstructure and photochromic properties of polyacrylamide thin films containing a polyoxometalate", *J. Mater. Res.*, **2003**, *18 (3)*, 709-713.

75. Wei Feng, **Tierui Zhang**, Yan Liu, Ran Lu*, Cheng Guan, Yingying Zhao and Jiannian Yao, "Evaluation of photochromic properties in heteropolyoxometallate-based inorganic polymeric thin films", *Mater. Chem. Phys.*, **2003**, *77 (1)*, 294-298.

76. Wei Feng, **Tierui Zhang**, Yan Liu, Ran Lu*, Yingying Zhao and Jiannian Yao, "Photochromic behavior of nanocomposite hybrid films of finely dispersed phosphotungstic acid particles into polyacrylamide", *J. Mater. Sci.*, **2003**, *38 (5)*, 1045-1048.

77. Chunyan Bao, Ming Jin, Ran Lu*, **Tierui Zhang** and Yingying Zhao, "Preparation of Au nanoparticles in the presence of low generational poly(amidoamine) dendrimer with surface hydroxyl groups", *Mater. Chem. Phys.*, **2003**, *81 (1)*, 160-165.

78. Chunyan Bao, Ming Jin, Ran Lu*, **Tierui Zhang** and Yingying Zhao, "Hyperbranched poly(amine-ester) templates for the synthesis of Au nanoparticles", *Mater. Chem. Phys.*, **2003**, *82 (3)*, 812-817.

79. Pengchong Xue, Ran Lu*, Ming Jin, **Tierui Zhang** and Yingying Zhao, "Synthesis of CdS nanorods with chiral template", *Chem. J. Chinese U.*, **2003**, *24 (7)*, 1172-1174.

80. Chunyan Bao, Ming Jin, Ran Lu*, Pengchong Xue, **Tierui Zhang**, Changhui Tan and Yingying Zhao, "Synthesis of hyperbranched poly(amine-ester)-protected noble metal nanoparticles in aqueous solution", *J. Mater. Res.*, **2003**, *18 (6)*, 1392-1398.

81. **Tierui Zhang**, Wei Feng, Yaqin Fu, Ran Lu*, Chunyan Bao, Xintong Zhang, Bing Zhao, Changqing Sun, Tiejin Li, Yingying Zhao and Jiannian Yao, "Self-assembled organic-inorganic composite superlattice thin films incorporating photo- and electro-chemically active phosphomolybdate anion", *J. Mater. Chem.*, **2002**, *12 (5)*, 1453-1458.

82. **Tierui Zhang**, Wei Feng, Ran Lu*, Xintong Zhang, Ming Jin, Tiejin Li, Yingying Zhao and Jiannian Yao, "Synthesis and characterization of polymetalate based photochromic inorganic-organic nanocomposites", *Thin Solid Films*, **2002**, *402 (1-2)*, 237-241.

83. **Tierui Zhang**, Wei Feng, Ran Lu*, Chunyan Bao, Tiejin Li, Yingying Zhao and Jiannian Yao, "Thermochromic organoaminomodified silica composite films containing phosphomolybdic acid", *J. Solid State Chem.*, **2002**, *166 (1)*, 259-263.

84. **Tierui Zhang**, Wei Feng, Ran Lu*, Chunyan Bao, Tiejin Li, Yingying Zhao and Jiannian Yao, "Preparation of photochromic sol-gel composite films containing dodecaphosphotungstic acid", *Mater. Chem. Phys.*, **2002**, *78 (2)*, 380-384.

85. **Tierui Zhang**, Wei Feng, Ran Lu*, Chunyan Bao, Xintong Zhang, Tiejin Li, Yingying Zhao and Jiannian Yao, "Self-assembled PMo_{12}^{3-}/$DODA^{+}$ composite superlattice thin films with photochromic properties", *J. Mater. Sci-Mater. El.*, **2002**, *13 (6)*, 331-334.

86. **Tierui Zhang**, Wei Feng, Ran Lu*, Chunyan Bao, Yingying Zhao, Tiejin Li and Jiannian Yao, "Preparation, structure and photochromic properties of dilong-chain alkyl group Dawson type molybdophosphoric acid multicomposite films", *Chem. J. Chinese U.*, **2002**, *23 (2)*, 297-299.

87. **Tierui Zhang**, Wei Feng, Ran Lu*, Chunyan Bao, Yingying Zhao, Tiejin Li and Jiannian Yao, "Preparation and photochromic properties of tungstosilicate acid/organoamino-modified silica nanocomposite films", *Chem. J. Chinese U.*, **2002**, *23 (10)*, 1979-1981.

88. Wei Feng, **Tierui Zhang**, Li Wei, Ran Lu*, Yubai Bai, Tiejin Li, Yingying Zhao and Jiannian Yao, "Photochromic behavior and mechanism of thin films in $H_3PW_{12}O_{40}$/polyacrylamide system", *Mater. Lett.*, **2002**, *54 (4)*, 309-313.

89. Wei Feng, **Tierui Zhang**, Yan Liu, Ran Lu*, Yingying Zhao, Tiejin Li and Jiannian Yao, "Sonochemical preparation of photochromic nanocomposite thin film based on polyoxometalates well dispersed in polyacrylamide", *J. Solid State Chem.*, **2002**, *169 (1)*, 1-5.

90. Yaqin Fu, **Tierui Zhang** and Changqing Sun*, "Multilayer films of cationic surfactants incorporating polyoxometalate on electrodes", *J. Solid State Electr.*, **2002**, *7 (1)*, 25-29.

91. Wei Feng, **Tierui Zhang**, Yan Liu, Li Wei, Ran Lu, Tiejin Li, Yingying Zhao* and Jiannian Yao, "Novel hybrid inorganic-organic film based on the tungstophosphate acid- polyacrylamide system: photochromic behavior and mechanism", *J. Mater. Res.*, **2002**, *17 (1)*, 133-136.

92. Wei Feng, **Tierui Zhang**, Yan Liu, Ran Lu*, Yingying Zhao and Jiannian Yao, "Controllable structure and photochromic properties of inorganic-polymeric nanocomposite films", *J. Mater. Sci. Lett.*, **2002**, *21 (6)*, 497-499.

93. Wei Feng, **Tierui Zhang**, Yan Liu, Ran Lu*, Cheng Guan, Yingying Zhao and Jiannian Yao, "Preparation and photochromic properties of hybrid thin films based on heteropolyoxometallate and polyacrylamide", *J. Mater. Sci. Technol*., **2002**, *18 (6)*, 558-560.

94. Wei Feng, **Tierui Zhang**, Yan Liu, Ran Lu*, Yingying Zhao and Jiannian Yao, "Preparation and photochromic behavior of novel hybrid inorganic-organic thin film", *Chinese Chem. Lett.*, **2002**, *13 (5)*, 460-463.

95. **Tierui Zhang**, Wei Feng, Chunyan Bao, Ran Lu, Xintong Zhang, Tiejin Li, Yingying Zhao* and Jiannian Yao, "Fabrication of heteropolyoxometalate-based photochromic inorganic-organic nanocomposites", *J. Mater. Res.*, **2001**, *16 (8)*, 2256-2263.

96. Wei Feng, **Tierui Zhang**, Yan Liu, Ran Lu, Yingying Zhao* and Jiannian Yao, "Preparation and photochromic properties of Keggin type tungstophosphate acids based on polyvinyl pyrrolidone", *Chem. J. Chinese U.*, **2001**, *22 (5)*, 830-832.

97. Wei Feng, **Tierui Zhang**, Yan Liu, Ran Lu, Yingying Zhao* and Jiannian Yao, "Preparation, photochromic properties of Keggin type tungstophosphoric acids based on polyacrylamide", *Chem. J. Chinese U.*, **2000**, *21 (10)*, 1563-1565.

CONFERENCE PROCEEDINGS

98. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous silica for enhanced catalytic performances of nanocatalysts", Abstracts of Papers, *International Symposium on Nanomaterials and Nanotechnology 2015*, Beijing, China, September 1-2, 2015.

99. **Tierui Zhang***, "Mesoporous and hollow micro/nanostructured catalysts", Abstracts of Papers, *ChinaNANO 2015 Young Scholars Symposium on Nano*, Beijing, China, September 1-2, 2015.

100. Yong Peng, Lu Shang, Tong Bian, Chao Zhou, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Visible light-responsive semiconductor photocatalysts for efficient hydrogen production", Abstracts of Papers, *5th Young Scholars Symposium on Nano & New Energy Technology*, Suzhou, China, August 29-30, 2015.

101. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous and hollow micro/nanostructured catalysts", Abstracts of Papers, *Inorganic Non-metallic Materials High-level Forum*, Wuxi, China, August 20-23, 2015.

102. Lu Shang, Yong Peng, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Semiconductor based photocatalysts for visible light-driven photocatalytic H_2 production", Abstracts of Papers, *Asian Pacific Conference on Chemistry of Materials 2015 (APCCOM 2015)*, Beijing, China, August 17-20, 2015.

103. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Utilization of mesoporous silica to efficiently enhance catalytic performances of nanocatalysts", Abstracts of Papers, *IUPAC 45th World Chemistry Congress (IUPAC-2015)*, Busan, Korea, August 9-14, 2015.

104. Lu Shang, Yong Peng, Tong Bian, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Design and performance control of visible light-driven inorganic semiconductor photocatalysts for hydrogen production", Abstracts of Papers, *Chinese Photocatalysis Forum and Industry Conference*, Chengdu, China, July 29-31, 2015.

105. Yong Peng, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Visible light-driven inorganic semiconductor photocatalysts for hydrogen production", Abstracts of Papers, *The 15th National Youth Conference on Catalysis of China (15th NYCC)*, Hefei, China, July 19-23, 2015.

106. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Critical roles of mesoporous silica on the enhanced catalytic performances of nanocatalysts", Abstracts of Papers, *International Conference on Advanced Complex Inorganic Nanomaterials (ACIN 2015)*, Namur, Belgium, July 13-17, 2015.

107. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Effective utilization of mesoporous silica to significantly improve catalytic performances of nanocatalysts", Abstracts of Papers, *8th International Conference on Materials for Advanced Technologies (ICMAT 2015)*, Singapore, June 28-July 3, 2015.

108. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous silica for enhanced catalytic performances of nanocatalysts", Abstracts of Papers, *10th Sino-US Nano Forum*, Wuhan, China, June 25-28, 2015.

109. Huijun Yu, Yong Peng, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Earth-abundant cocatalysts for semiconductor-based photocatalytic water splitting", Abstracts of Papers, *International Workshop on Graphene and C_3N_4-based Photocatalysts (IWGCP 2015)*, Wuhan, China, June 5-8, 2015.

110. **Tierui Zhang***, "Mesoporous and hollow micro/nanostructured catalysts", Abstracts of Papers, *Young Scholars Symposium on Matter Science in Beijing*, Beijing, China, January 27, 2015.

111. **Tierui Zhang***, "Controllable preparation and applications of monolayer LDHs", Abstracts of Papers, *The 3rd Golden Brick Forum of Chemistry and Materials 2014*, Beijing, China, December 24-25, 2014.

112. Chao Zhou, Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Visible-light-driven mesoporous and hollow inorganic semiconductor photocatalysts for hydrogen production", Abstracts of Papers, *2014 Photocatalysis Annual Meeting & Photocalysis Young Scientists Forum*, Hangzhou, China, November 28-30, 2014.

113. Chao Zhou, Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Nanosized semiconductor photocatalysts for visible-light-driven hydrogen production", Abstracts of Papers, *8th Inorganic Chemistry Young Scientists Forum*, Xian, China, November 7-9, 2014.

114. Chao Zhou, Huijun Yu, Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous and hollow semiconductor photocatalysts for visible-light-driven hydrogen production", Abstracts of Papers, *International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM2014)*, Haikou, China, October 24-27, 2014.

115. Chao Zhou, Huijun Yu, Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous and hollow visible-light-response semiconductor photocatalysts for H_2 production", Abstracts of Papers, *4th International Symposium on Solar Fuels and Solar Cells & the 3rd DNL Conference on Clean Energy (SFSC-DCCE)*, Dalian, China, October 21-24, 2014.

116. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Highly robust two-dimensional sandwich-like graphene-based nanocomposite catalysts", Abstracts of Papers, *China-Italy Bilateral Symposium on Graphene 2014*, Dalian, China, September 20-21, 2014.

117. **Tierui Zhang***, "Visible-light-driven mesoporous semiconductor photocatalysts", Abstracts of Papers, *The 2nd Chinese Young Chemical Physicists Forum*, Guiyang, China, August 29-31, 2014.

118. Lu Shang and **Tierui Zhang***, "Mesoporous and hollow micro/nanostructure catalysts", Abstracts of Papers, *2014 Youth Chemist Forum: Chemistry and Energy of Western Resources*, Lanzhou, China, August 22-24, 2014.

119. Tong Bian, Chao Zhou, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous and hollow micro/nanostructured visible-light-driven photocatalysts", Abstracts of Papers, *The 13th Conference on Solid Sate Chemistry and Inorganic Synthesis*, Changchun, China, August 17-19, 2014.

120. Lu Shang and **Tierui Zhang***, "Two-dimensional thermal-stable catalytic system: encapsulation of nanocatalysts in mesoporous silica nanosheets through graphene oxides-mediated strategy", Abstracts of Papers, *5th International Conference on Nanotechnology: Fundamentals and Applications (ICNFA'14)*, Prague, Czech Republic, August 11-13, 2014.

121. **Tierui Zhang***, Chao Zhou, Lu Shang, Huijun Yu, Li-Zhu Wu and Chen-Ho Tung, "Nanosized semiconductor photocatalysts for visible-light-driven H_2 evolution", Abstracts of Papers, *The 29th CCS Congress*, Beijing, China, August 4-7, 2014.

122. **Tierui Zhang***, Lu Shang, Li-Zhu Wu and Chen-Ho Tung, "Mesoporous micro/nanostructure photocatalysts", Abstracts of Papers, *The 29th CCS Congress*, Beijing, China, August 4-7, 2014.

123. **Tierui Zhang***, Chao Zhou, Lu Shang, Huijun Yu, Li-Zhu Wu and Chen-Ho Tung, "Inorganic semiconductor photocatalysts for visible-light-driven H_2 evolution", Abstracts of Papers, *The 14th National Conference of Solar Energy Photochemistry and Photocatalysts*, Haerbin, China, July 28-30, 2014.

124. Chao Zhou, Lu Shang, Huijun Yu, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Inorganic semiconductors for visible-light-driven H_2 evolution", Abstracts of Papers, *The 1st National Conference on Luminescent and Photoelectric Properties of Micro/nano Systems*, Changchun, China, July 23-25, 2014.

125. Chao Zhou, Lu Shang, Huijun Yu, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Semiconductor photocatalysts for visible-light-driven H_2 evolution", Abstracts of Papers, *Chinese Materials Annual Meeting 2014*, Chengdu, China, July 4-7, 2014

126. Chao Zhou, Huijun Yu, Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous and hollow visible-light-responsive semiconductor photocatalysts for water splitting", Abstracts of Papers, *5th International Symposium on Structure-Property Relationships in Solid State Materials (SPSSM-5)*, Qingdao, China, June 22-27, 2014.

127. **Tierui Zhang***, Lu Shang, Li-Zhu Wu and Chen-Ho Tung, "Highly robust nanocatalysts based on mesoporous and hollow micro/nanostructures", Abstracts of Papers, *7th World Congress on Particle Technology*, Beijing, China, May 19-22, 2014.

128. **Tierui Zhang***, Chao Zhou, Huijun Yu, Lu Shang, Li-Zhu Wu and Chen-Ho Tung, "Visible-light-driven semiconductor photocatalysts for hydrogen production", Abstracts of Papers, *7th World Congress on Particle Technology*, Beijing, China, May 19-22, 2014.

129. Chao Zhou, Huijun Yu, Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Visible-light-response semiconductor photocatalysts for hydrogen production", Abstracts of Papers, *EMN EAST MEETING (Energy Material Nanotechnology) 2014*, Beijing, China, May 12-15, 2014.

130. **Tierui Zhang***, "Construction of surface and interface of micro/nanostructures and catalytic performances", Abstracts of Papers, *2014 1st National Nanotechnology Frontier Forum & Chinese Materials Research Society-Nano Material and Device Chapter Founding Conference*, Suzhou, China, April 25-27, 2014

131. Chao Zhou, Huijun Yu, Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Semiconductor photocatalysts for efficient visible-light-driven H_2 evolution", Abstracts of Papers, *International Symposium on Energy and Environmental Photocatalytic Material*s, Wuhan, China, March 21-24, 2014.

132. Chao Zhou, Lu Shang, Huijun Yu, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Semiconductor based visible-light-driven photocatalysts for hydrogen production", Abstracts of Papers, *EnerParticle2013*, Beijing, China, December 13-15, 2013.

133. **Tierui Zhang***, "Mesoporous and hollow micro/nanostructure catalysts", Abstracts of Papers, *The National Academy of Sciences Material Chemical Branch Catalyst and Separation Technology Seminar*, Ningbo, China, December 11-13, 2013.

134. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Morphological effect of visible-light responsive semiconductor photocatalysts on their catalytic activities", Abstracts of Papers, *The 17th National Conference on Electrochemistry*, Suzhou, China, November 15-19, 2013.

135. **Tierui Zhang***, "Mesoporous and hollow micro/nanostructure catalysts", Abstracts of Papers, *2013 Nanocatalysis Youth Workshop*, Suzhou, China, November 15-17, 2013.

136. Chao Zhou, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Facile hydrothermal synthesis of reduced graphene oxide/$Sn_2Nb_2O_7$ composites with enhanced visible light photocatalytic activity", Abstracts of Papers, *6th Asia-Pacific Congress on Catalysis (APCAT-6)*, Taibei, Taiwan, October 13-17, 2013.

137. Lu Shang, Chao Zhou, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Semiconductor based visible-light photocatalysts for hydrogen evolution", Abstracts of Papers, *I5th World Hydrogen Technologies Convention (WHTC 2013)*, Shanghai, China, September 25-28, 2013.

138. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous and hollow micro/nanostructures for highly efficient catalysis", Abstracts of Papers, *IUMRS-ICAM 2013 International Conference on Advanced Materials*, Qingdao, China, September 22-28, 2013.

139. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Morphology controlled semiconductor based photocatalysts with high efficiency", Abstracts of Papers, *IUMRS-ICAM 2013 International Conference on Advanced Materials*, Qingdao, China, September 22-28, 2013.

140. Chao Zhou, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous and hollow micro/nanostructures for highly efficient catalysis", *EMN EAST MEETING (Energy Material Nanotechnology) 2013*, Beijing, China, September 7-10, 2013.

141. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous and hollow micro/nanostructures for nanocatalysts", Abstracts of Papers, *44th World Chemistry Congress*, Istanbul, Turkey, August 11-16, 2013.

142. **Tierui Zhang***, Lu Shang, Huijun Yu, Li-Zhu Wu and Chen-Ho Tung, "Facets controlled photocatalysts with high efficiency", Abstracts of Papers, *13th China Photochemistry Conference, Xi'an*, China, August 7-11, 2013.

143. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Facets controlled photocatalysts", Abstracts of Papers, *Chinese Photocatalysis Forum and Industry Conference, Beijing*, China, August 1-3, 2013.

144. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Facets controlled photocatalysts with high efficiency", Abstracts of Papers, *The 14th National Youth Conference on Catalysis of China, Changchun*, China, July 28-31, 2013.

145. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Mesoporous and hollow nanocatalysts", Abstracts of Papers, *ICMAT 2013 7th International Conference on Materials for Advanced Technologies*, Singapore, June 30-July 5, 2013.

146. Lu Shang, Yunhui Liang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Morphology controlled inorganic semiconductor micro/nanostructures mediated by organic structure-directing agents for highly

efficient photocatalysis", Abstracts of Papers, *ICMAT 2013 7th International Conference on Materials for Advanced Technologies*, Singapore, June 30-July 5, 2013.

147. Yunhui Liang, Lu Shang, Tong Bian, Huijun Yu, Chao Zhou, Donghui Zhang, **Tierui Zhang***, Li-Zhu Wu, Chen-Ho Tung, "Morphological effect of visible-light responsive metal oxide semiconductor photocatalysts on their catalytic activities", Abstracts of Papers, *The 13th National Conference on Solar Energy Photochemistry & Photocatalysis*, Wuhan, China, October 26-28, 2012.

148. Lu Shang, Li-Zhu Wu, Chen-Ho Tung and **Tierui Zhang***, "Self-templating method to porous and hollow nanocatalysts", Abstracts of Papers, *1st International Conference on Emerging Advanced Nanomaterials 2012 (ICEAN-2012)*, Brisbane, Australia, October 22-25, 2012.

149. **Tierui Zhang***, "Graphene/niobate nanocomposite visible-light photocatalysts for solar water splitting hydrogen production", Abstracts of Papers, *Sino-Deutsch Symposium GZ842 on pi-Structured Polymers and Carbon Nanomaterials for Energy Applications*, Beijing, China, September 2-7, 2012.

150. Chao Zhou, **Tierui Zhang***, Li-Zhu Wu and Chen-Ho Tung, "Novel $Sn_2Nb_2O_7/K_2Nb_2O_6$ nanojunctions: facile hydrothermal synthesis, formation mechanism and excellent charge Separation efficiency under visible light irradiation", Abstracts of Papers, *IPS 19 Conference on Photochemical Conversion and Storage of Solar Energy*, Pasadena, United States, July 29 - August 3, 2012.

151. **Tierui Zhang***, "The shape-controlled synthesis of nano-sized photocatalysts", Abstracts of Papers, *The 1st Chinese Young Chemical Physicists Forum, Guiyang*, China, July 27-31, 2012.

152. **Tierui Zhang***, Yunhui Liang, Tong Bian, Li-Zhu Wu and Chen-Ho Tung, "The shape-controlled synthesis of nano-sized photocatalysts", Abstracts of Papers, *Conference on Solid State Chemistry and Inorganic Synthesis (CSSCIS-2012)*, Qingdao, China, June 29-July 1, 2012.

153. **Tierui Zhang***, Yunhui Liang, Li-Zhu Wu and Chen-Ho Tung, "Mesoporous and hollow micro/nanostructures", Abstracts of Papers, *The 28th CCS Congress*, Chengdu, China, April 13-160, 2012.

154. Donghui Zhang, **Tierui Zhang***, Li-Zhu Wu and Chen-Ho Tung, "Study of Fe_3O_4 Nanocatalysts for the Degradation of p-nitrophenol", Abstracts of Papers, *The 28th CCS Congress*, Chengdu, China, April 13-160, 2012.

155. Yunhui Liang, Lu Shang, **Tierui Zhang***, Li-Zhu Wu and Chen-Ho Tung, "Facet-dependent highly efficient photocatalysis of inorganic semiconductors", Abstracts of Papers, *The 18th China-Japan Bilateral Symposium on Intelligent Electrophotonic Materials and Molecular Electronics (SIEMME' 18) 2011*, Tianjin, China, September 16-18, 2011.

156. Yunhui Liang, Lu Shang, **Tierui Zhang***, Li-Zhu Wu and Chen-Ho Tung, "Morphology controlled inorganic semiconductor micro/nanostructures mediated by organic structure-directing agents for highly efficient photocatalysis", Abstracts of Papers, *XXV International Conference on Photochemistry*, Beijing, China, August 12-17, 2011.

157. Yunhui Liang, Lu Shang, Donghui Zhang, **Tierui Zhang***, Li-Zhu Wu and Chen-Ho Tung, "Morphology effects of highly efficient visible-light-driven semiconductor photocatalysts", Abstracts of Papers, *The 13rd National Youth Conference on Catalysts*, Kunming, China, July 24-July 27, 2011.

158. **Tierui Zhang*,** Yunhui Liang, Lu Shang and Donghui Zhang, "Highly efficient visible light oxide semiconductor photocatalysts for the degradation of organic dye pollutants", Abstracts of Papers, *Colloids and Materials 2011 - The 1st International Symposium on Colloids and Materials: New Scientific Horizons*, Amsterdam, Netherlands, May 8-11, 2011.

159. Yunhui Liang, Lu Shang, **Tierui Zhang***, Li-Zhu Wu and Chen-Ho Tung, "Morphology controlled Cu_2O polygonal microcrystals for highly efficient visible-light photocatalysis", Abstracts of Papers, *International Conference on Clean Energy Science*, Dalian, China, April 10-13, 2011.

160. Yunhui Liang, Lu Shang and **Tierui Zhang***, "The self-templating method for yolk-shell mesoporous and hollow micro/nanostructures and the study for their catalytic performances", Abstracts of Papers, *11th*

Conference on Solid State Chemistry and Inorganic Synthesis joint with 2nd Dalton Transactions International Symposium, Shanghai, China, November 14-19, 2010.

161. Yunhui Liang and **Tierui Zhang***, "Self-templating approach to porous and hollow silica nanostructures", *The 27th CCS Congress*, Xiamen, China, June 20-23, 2010.

162. Gang Wu, Lei Xie, **Tierui Zhang**, Yushan Yan and Piotr Zelenay*, "Carbon nanotubes as support for heteroatomic polymer-derived non-precious metal oxygen reduction", Abstracts of Papers, *216th ECS Meeting*, Vienna, Austria, October 4-9, 2009.

163. Ilkeun Lee, Jianping Ge, **Tierui Zhang**, Yadong Yin and Francisco Zaera*, "CATL 39-Self-assembly synthetic methods for the preparation of heterogeneous catalysts with novel architectures", Abstracts of Papers, *237th ACS National Meeting*, Salt Lake City, UT, United States, March 22-26, 2009.

164. Yadong Yin*, Qiao Zhang, Jianping Ge, Yongxing Hu and **Tierui Zhang**, "Porous oxide shell through surface-protected etching", Abstracts of Papers, *2008 MRS Fall Meeting*, Boston, MA, United States, November 1-5, 2008.

165. Yadong Yin*, **Tierui Zhang**, Jianping Ge and Yongxing Hu, "COLL 414-Highly water soluble nanocrystals: synthesis and surface modification using polyelectrolytes", Abstracts of Papers, *235th ACS National Meeting*, New Orleans, LA, United States, April 6-10, 2008.

166. Jianping Ge, Yongxing Hu, **Tierui Zhang** and Yadong Yin*, "INOR 62-Self-assembly and field-responsive optical diffractions of superparamagnetic colloids", Abstracts of Papers, *235th ACS National Meeting*, New Orleans, LA, United States, April 6-10, 2008.

167. Yadong Yin*, **Tierui Zhang**, Yongxing Hu and Jianping Ge, "INOR 439-Self-templated approaches to oxide microcapsules", Abstracts of Papers, *235th ACS National Meeting*, New Orleans, LA, United States, April 6-10, 2008.

168. Fuli Zhao*, Cairong Ding, M. Huang, Fenghua Zhao, XianfengYang, Jian-Guo Zheng, **Tierui Zhang**, Mingmei Wu, Z. Ryan Tian and Hezhou Wang, "Directional lasing and energy transfer in ZnO nanotree", *2nd IEEE International Nanoelectronics Conference*, Shanghai, China, March 24-27, 2008, 641-644.

169. Yongxing Hu, Jianping Ge, **Tierui Zhang** and Yadong Yin*, "A self-templated approach to TiO_2 microcapsules", Abstracts of Papers, *2007 MRS Fall Meeting*, Boston, MA, United States, November 26-30, 2007.

170. Z. Ryan Tian*, **Tierui Zhang**, Mary Keeter-Brewer, Quincy Anderson and Roland N. Njabon, "INOR 852-Controlled nucleation, growth, and kinetics in ZnO hierarchical nanosyntheses", Abstracts of Papers, *234th ACS National Meeting*, Boston, MA, United States, August 19-23, 2007.

171. Feng Chen, Wenjun Dong, **Tierui Zhang**, Helen M. Duhart and Z. Ryan Tian*, "ANYL 47-A smart bioscaffold of nanowires for monitoring proteins" Abstracts of Papers, *234th ACS National Meeting*, Boston, MA, United States, August 19-23, 2007.

172. Feng Chen, Wenjun Dong, **Tierui Zhang**, Carmen Padilla, Jay Kasbohm, Roland Njabon and Z. Ryan Tian*, "New nanostructures for sensing, therapeutics, drug release, and tissue regeneration", Abstracts of Papers, *211st ECS Meeting*, Chicago, IL, May 6-10, 2007.

173. **Tierui Zhang**, Z. Ryan Tian*, Wenjun Dong, Roland N. Njabon, Quincy Anderson and Vijay K. Varadan, "Probing mechanisms of site-specific heterogeneous nucleation and directional nanobranch growth", Abstracts of Papers, *233rd ACS National Meeting*, Chicago, IL, United States, March 25-29, 2007.

174. Jose K. Abraham*, Sridhar Dubaka, Vijay K. Varadan, Huajun Zhou, **Tierui Zhang** and Z. Ryan Tian, "Piezoelectric 3 D nanostructures for developing point-of-care biosensors", *Proc. SPIE 6528, Nanosensors, Microsensors, and Biosensors and Systems 2007*, San Diego, CA, March 21-22, 2007, V5280.

175. Z. Ryan Tian*, **Tierui Zhang**, Wenjun Dong, Mary Keeter-Brewer, Quincy Anderson, Roland Njabon and Jay Kasbohm, "Site-specific nucleation and kinetics in hierarchical nanosyntheses of ZnO", Abstracts of Papers, *2006 MRS Fall Meeting*, Boston, MA, United States, November 28-30, 2006.

176. **Tierui Zhang**, Mary Keeter-Brewer, Wenjun Dong and Z. Ryan Tian*, "INOR 770-Truly hierarchical solution synthesis in nanoscale", Abstracts of Papers, *232nd ACS National Meeting*, San Francisco, CA, United States, September 10-14, 2006.

177. **Tierui Zhang**, Mary Keeter-Brewer, Wenjun Dong and Z. Ryan Tian*, "INOR 427-Hierarchical synthesis of ordered and oriented complex nanostructures", Abstracts of Papers, *232nd ACS National Meeting*, San Francisco, CA, United States, September 10-14, 2006.

178. Wenjun Dong, Andrew Cogbill, **Tierui Zhang** and Z. Ryan Tian*, "INOR 769-Syntheses of heteronanostructures of nanoparticles-on-nanofibers", Abstracts of Papers, *232nd ACS National Meeting*, San Francisco, CA, United States, September 10-14, 2006.

179. Z. Ryan Tian*, **Tierui Zhang**, Sanjit Konar and Wenjun Dong, "INOR 348-Design and solution syntheses of ordered and hierarchical nanostructures", Abstracts of Papers, *231st ACS National Meeting*, Atlanta, GA, United States, March 26-30, 2006.

180. **Tierui Zhang**, Yongming Li, Owen Terreau and Hicham Fenniri*, "New cross-linking agents to improve the swelling properties of barcoded resins (BCRs)", Abstracts of Papers, *88th Canadian Chemistry Conference*, Saskatoon, Canada, May 28 - June 1, 2005, ORP 522.

181. Teng Ben, Xing Wang, **Tierui Zhang**, Hui Cao, Zhongwen Wu, Wanjin Zhang* and Yan Wei, "POLY 73-Entrapment and release property of rigid macrocyclic oligomer/Keggin heteropoly acid system", Abstracts of Papers, *223rd ACS National Meeting*, Orlando, United States, April 7-11, 2002, POLY 73.

182. Teng Ben, Xing Wang, **Tierui Zhang**, Hui Cao, Zhongwen Wu, Wanjin Zhang* and Yan Wei, "Entrapment and release property of rigid macrocyclic oligomer/Keggin heteropoly acid system", *Polymer Preprints (American Chemical Society, Division of Polymer Chemistry)* 2002, 43(1), 417-418.

PATENTS

1. **Tierui Zhang**; Yong Peng; Lu Shang; Li-Zhu Wu and Chen-Ho Tung, "The preparation and applications of hydrophilic flower-like CdSe microspheres composed of nanosheets", *Chin. Pat. Appl. Publ.* (**2014**) No. 201410782760.2.

2. **Tierui Zhang**; Hua Fan; Lu Shang; Li-Zhu Wu and Chen-Ho Tung, "One novel core/shell nanocomposite catalyst", *Chin. Pat. Appl. Publ.* (**2014**) No. 201410601555.1.

3. **Tierui Zhang**; Yinhu Cao; Li-Zhu Wu and Chen-Ho Tung, "The preparation and applications of nanocluster catalystsbased onthe synergistic effect of LSPR and electron transfer", *Chin. Pat. Appl. Publ.* (**2014**) No. 201410602503.6.

4. **Tierui Zhang**; Yinhu Cao; Li-Zhu Wu and Chen-Ho Tung, "The preparation and applications of composite nanocluster catalyst covered by silica", *Chin. Pat. Appl. Publ.* (**2014**) No. 201410602564.2.

5. **Tierui Zhang**; Yufei Zhao; Li-Zhu Wu and Chen-Ho Tung, "The preparation and applications of Zn^{+} doped LDH nanophotocatalyst", *Chin. Pat. Appl. Publ.* (**2014**) No. 201410406671.8.

6. **Tierui Zhang**; Yufei Zhao; Li-Zhu Wu and Chen-Ho Tung, "The preparation of Ni^{3+} doped Ni-based LDH nanosheet and application in supercapacitor", *Chin. Pat. Appl. Publ.* (**2014**) No. 201410407577.4.

7. **Tierui Zhang**; Yinhu Cao; Li-Zhu Wu and Chen-Ho Tung, "The preparation and applications of nanoclusters with strong LSPR effect", *Chin. Pat. Appl. Publ.* (**2014**) No. 201410559418.6.

8. **Tierui Zhang**; Hua Fan; Li-Zhu Wu and Chen-Ho Tung, "One-pot method for transition metal (Fe, Co, Ni) hydroxide/oxyhydroxide ultrathin nanosheets", *Chin. Pat. Appl. Publ.* (**2014**) No. 201410524809.4.

9. **Tierui Zhang**; Tong Bian; Li-Zhu Wu and Chen-Ho Tung, "The photochemical preparation and applications of inorganic nanocrystal vesicles", *Chin. Pat. Appl. Publ.* (**2014**) No.201410144249.X.

10. **Tierui Zhang**; Tong Bian; Li-Zhu Wu and Chen-Ho Tung, "The preparation and applications of hydrophilic nanocrystals", *Chin. Pat. Appl. Publ.* (**2014**) No.201410064812.2. **(Granted 08/11/2015)**

11. **Tierui Zhang**; Chao Zhou; Li-Zhu Wu and Chen-Ho Tung, "The preparation of visible-light-driven Nb^{4+} self-doped niobate photocatalyst", *Chin. Pat. Appl. Publ.* (**2014**) No.201410064812.2.

12. **Tierui Zhang**; Lu Shang; Baihui Zhang; Donghui Zhang; Li-Zhu Wu and Chen-Ho Tung, "The preparation and applications of noble metal nanoparticles loaded graphene composites coved by mesoporous silica", *Chin. Pat. Appl. Publ.* (**2012**) No.201210410661.2. **(Granted 02/05/2014)**

13. **Tierui Zhang**; Donghui Zhang; Li-Zhu Wu and Chen-Ho Tung, "The preparation of hollow magnetic nanocomposites", *Chin. Pat. Appl. Publ.* (**2012**) No.201210178903.X. **(Granted 10/20/2014)**

14. **Tierui Zhang**; Donghui Zhang; Yunhui Liang; Lu Shang; Li-Zhu Wu and Chen-Ho Tung, "The preparation of Fe_xO_y based inorganic nanocomposites", *Chin. Pat. Appl. Publ.* (**2012**) No.201210142672.7. **(Granted 08/20/2014)**

15. **Tierui Zhang**; Donghui Zhang; Li-Zhu Wu and Chen-Ho Tung, "The preparation of magnetic nanocomposites", *Chin. Pat. Appl. Publ.* (**2012**) No.201210085569.3.

16. **Tierui Zhang**; Donghui Zhang; Lu Shang, Li-Zhu Wu and Chen-Ho Tung, "The preparation of water dispersed ferrite nanoclusters modified by PAA", *Chin. Pat. Appl. Publ.* (**2011**) No.201110326087.8.

17. **Tierui Zhang**; Yunhui Liang; Li-Zhu Wu and Chen-Ho Tung, "The preparation and applications of Cu_2O 50-facet polyhedra microcrystals", *Chin. Pat. Appl. Publ.* (**2011**) No.201110052128.9. **(Granted 09/17/2014)**