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简历：

王传义，男，德国洪堡学者，中科院新疆理化所研究员、博士生导师、环境科学与技术研究室主任、所学术委员会委员，中科院“微纳环境功能材料结构设计、表界面行为及其应用”科技创新交叉与合作团队及中科院-国家外专局“干旱区水体污染监控技术”创新团队国际伙伴计划负责人，入选2010年中国科学院“百人计划”（“引进国外杰出人才”）。1998年7月从中国科学院感光化学研究所(现中科院理化技术研究所)毕业，获博士学位和中科院院长奖学金优秀奖。同年，获德国洪堡学者奖。1999-2010年期间先后在德国太阳能研究所、柏林自由大学理论和物理化学研究所、美国塔芙茨（TUFTS）大学及密苏里大学从事科学研究工作，任研究助理教授、兼职博士生导师等。

2007年应邀主编英文专著一部（2007年度Transworld Research Network物理化学进展评论，*Recent Research Developments in Physical Chemistry: Surfaces and Interfaces of Nanostructured Systems*）。2011年任国际刊物*Journal of Analytical Sciences, Methods and Instrumentation*（*JASMI*）编委（Editor Board）；同年应邀客座主编（Guest Editor）国际刊物*Current Inorganic Chemistry*一期有关能源和环境功能无机材料（“Eco- and Energy-Driven Inorganic Functional Materials”）主题专辑。2012年应邀客座主编国际杂志“*Nanoscience & Nanotechnology-Asia*”一期有关绿色功能纳米材料的专辑；同年应邀担任国际杂志“*Precision Instrument and Mechanology (PIM)*”的编委。2013年起担任国际杂志*Instrument Science*和*Advances in Nano Research*的编委。此外，担任了*J. Am. Chem. Soc.*等16个国际刊物的审稿人。

主要从事微纳米环境友好功能材料与技术、纳米光电催化功能材料及其表面/界面物理化学研究。至今在 *J. Am. Chem. Soc.*等国际重要学术刊物上发表论文60多篇（其中通讯作者26篇，第一作者29篇，论文被他人引用1100多次，引用50次以上的第一作者论文有7篇，第一作者论文单篇引用达170多次，H-指数值19）。撰写专著四个章节(含表面和胶体科学大百科全书等)。

目前主要从事研究方向：

微纳米环境友好功能材料与技术、纳米光电催化功能材料及其表面/界面物理化学研究，包括：1）纳米材料的合成、制备、组装与表征；2）能源与环境为目标的光电催化；3）新型高效吸附和分离材料；4）重金属离子和有机污染物及危险品传感检测；5）线性和非线性光谱学探索微观原初过程和功能材料作用机制等。

研究团队主页：http://lemst.xjipc.cas.cn/

个人英文主页：（English Homepage）：http://people.gucas.ac.cn/~cywang?language=en

代表性文章（他引1100多次，单篇最高引用170多次，H-值19）

I. 光催化材料表面化学与非线性光谱学

1. Wang, Chuan-yi; Groenzin, Henning and Shultz, Mary Jane*: Comparative Study of Acetic Acid, Methanol, and Water Adsorbed on Anatase TiO_2 Probed by Sum-Frequency Generation Spectroscopy, *J. Am. Chem. Soc.*, 2005, *127*, 9736-9744.

2. Wang, Chuan-yi; Groenzin, Henning and Shultz, Mary Jane*: Direct Observation of Competitive Adsorption between Methanol and Water on TiO_2: An in-situ Sum-Frequency Generation Study, *J. Am. Chem. Soc.*, 2004, *126*, 8094-8095.

3. Wang, Chuan-yi; Groenzin, Henning and Shultz, Mary Jane*: Surface Characterization of Nanosized TiO_2 Film by Sum Frequency Generation Using Methanol as a Molecular Probe, *J. Phys. Chem., B.* 2004, *108*, 265-272.

4. Wang, Chuan-yi; Groenzin, Henning and Shultz, Mary Jane*: Molecular Species on Nano-Particulate Anatase TiO_2 Film Detected by Sum Frequency Generation: Trace Hydrocarbons and Hydroxyl Groups, *Langmuir*, 2003, *19*(18): 7330-7334.

II. 纳米光/电催化材料设计、制备及性能

5. Li, Yingxuan; Zang, Ling; Li, Yan; Liu, Yun; Liu, Chunyan; Zhang, Ying; He, Hongquan and Wang, Chuanyi*: Photoinduced Topotactic Growth of Bismuth Nanoparticles from Bulk $SrBi_2Ta_2O_9$, *Chem. Mater.*, 2013, *25* (*10*), 2045-2050.

6. Jia, Hanzhong; Li, Li; Fan, Xiaoyun; Liu, Mingdeng; Deng, Wenye; Wang, Chuanyi*: Visible light photodegradation of phenanthrene catalyzed by Fe(III)-smectite: Role of soil organic matter, *J. Hazard. Mater.*, 2013, *256–257*, 16-23.

7. Yao, Zhangquan; Yue, Ruirui; Zhai, Chunyang; Jiang, Fengxing; Wang, Huiwen; Du,Yukou*; Wang,

Chuangyi*; Yang, Ping*: Electrochemical layer-by-layer fabrication of a novel three-dimensional Pt/graphene/carbon fiber electrode and its improved catalytic performance for methanol electrooxidation in alkaline medium, *Int. J. Hydrogen Energy*, 2013, ***38***, 6368-6376.

8. Wang, Lan; Zang, Ling; Zhao, Jincai; Wang, Chuan-yi*: Green synthesis of shape-defined anatase TiO_2 nanocrystals wholly exposed with {001} and {100} facets, *Chem. Commun.* 2012, 48, 11736-11738.

9. Jia, Hanzhong; Zhao, Jincai; Fan, Xiaoyun, Wang, Chuanyi*: Photodegradation of Phenanthrene on Cations-Modified Clays under Visible Light, *Appl. Catal. B Environ.*, 2012, 123- 124, 43-51.

10. Yao, Zhangquan; Zhu, Mingshan; Jiang, Fengxing; Du, Yukou*; Wang, Chuanyi* and Yang, Ping*: Highly efficient electrocatalytic performance based on Pt nanoflowers modified reduced graphene oxide/carbon cloth electrode *J. Mater. Chem.*, 2012, ***22***, 13707-13713.

11. Wang, Chuan-yi*; Bahnemann, Detlef W. and Dohrmann, J. K.: A Novel Preparation of Iron-Doped TiO_2 Nanoparticles with Enhanced Photocatalytic Activity, *Chem. Commun.* 2000, 1539-1540.

12. Wang, Chuan-yi*; Böttcher, Christoph; Bahnemann, Detlef W.* and Dohrmann, Jürgen K: A Comparative Study of Nanometer Sized Fe(III)-Doped TiO_2 Photocatalysts: Synthesis, Characterization and Activity, *J. Mater. Chem.*, 2003, ***13***(9): 2322-2329.

13. Wang, Chuan-yi*; Pagel, Ronald; Bahnemann, Detlef W.* and Dohrmann, Jürgen K.: Quantum Yield of Formaldehyde Formation from Methanol in the Presence of Colloidal TiO_2: Effect of Intermittent Illumination, Platinization and Deoxygenation. *J. Phys. Chem., B.* 2004, ***108***, 14082-14092.

14. Wang, Chuan-yi; Bahnemann, Detlef W. and Dohrmann, J. K.: Photonic Efficiency and Quantum Yield of Formaldehyde Formation from Methanol in the Presence of Various TiO_2 Photocatalysts, *J. Photochem. Photobiol. A: Chem.* 2002, ***148***, 169-176.

15. Wang, Chuan-yi; Liu, Chun-yan; etc. The Surface Chemistry of Hybid Nanometer-Sized Particle: I. Photochemical Deposition of Gold on Ultrafine TiO_2 Particles. *Colloid & Surface, A:*, 1998, ***131***(1-3), 271-280.

16. Wang, Chuan-yi; Liu, Chun-yan; Chen, Jin and Shen, Tao: The Surface Chemistry of Hybrid Nanometer Sized Particles: II. Characterization and Microstructure of Au Clusters Supported on TiO_2. *J. Colloid & Interface Sci.*, 1997, ***191***, 464-470.

17. Wang, Chuan-yi; Liu, Chun-yan; and Shen, Tao: The Photocatalytic Oxidation of Phenylmercaptotetrazole in TiO_2 Dispersions. *J. Photochem. Photobiol. A*: 1997, ***109***, 65.

18. Li, Yingxuan; Liu, Huayun and Wang, Chuanyi *: Nanostructured Sulfides: Synthesis and Applications in Hydrogen Generation, *Current Inorganic Chemistry*, 2012, 2, 168-183.

19. Ren, F.; Zhou, R.; Jiang, F.; Zhou, W.; Du, Y. *; Xu, J. *; and Wang C. *: Preparation of Platinum-Poly(Odihydroxybenzene) Composite Catalyst and Its Electrocatalytic Activity Toward Methanol and Formic Acid Oxidation, *Fuel Cells*, 2012, 12(1), 116-123.

20. Ren, Fangfang; Zhou, Weiqiang; Du, Yukou*; Yang, Ping; Wang, Chuanyi*; Xu, Jingkun: High efficient electrocatalytic oxidation of formic acid at Pt dispersed on porous poly(o-methoxyaniline), *Int. J. Hydrogen Energy*, 2011, ***36***, 6414-6421.

21. Zhang, Hongmei; Jiang, Fengxing; Zhou, Rong; Du, Yukou *; Yang, Ping; Wang, Chuanyi *; Xu, Jingkun; Effect of deposition potential on the structure and electrocatalytic behavior of Pt micro/nanoparticles, *Int. J. Hydrogen Energy*, 2011, ***36***, 15052-15059

22. Zhang, Hongmei; Zhou, Weiqiang; Du, Yukou*; Yang, Ping; Wang, Chuanyi;* and Xu, Jingkun: Enhanced Electrocatalytic Performance for Methanol Oxidation on Pt-TiO_2/ITO Electrode under UV Illumination, *Int. J. Hydrogen Energy*, 2010, ***35***, 3270-3279.

23. Zhang, Hongmei; Zhou, Weiqiang; Du, Yukou;* Yang, Ping; and Wang, Chuanyi;*: One-step electrodeposition of platinum nanoflowers and their high efficient catalytic activity for methanol electro-oxidation, *Electrochem. Commun.*, 2010, ***12***, 882-885.

III. 微纳环境材料

24. Jia, Hanzhong; Wang, Chuanyi: Comparison of smectite-supported zero-valent iron produced by different methods: reactivity, mobility and stability, *Environ. Technol.*, 2013, 34(1), 25-33

25. Wang, Xiaohuan; Deng, Wenye; Xie, Yuyu; Wang, Chuanyi: Selective Removal of Mercury Ions Using a Chitosan-Poly(vinyl alcohol) Hydrogel Adsorbent with Three-dimensional Network Structure, *Chem. Eng. J.*, 2013, DOI: http://dx.doi.org/10.1016/j.cej.2013.04.104

26. Liu, M., Yuan, Q. Jia, H., Li, S., Wang, X., and Wang, Chuanyi *: Cysteine modified orange peel for removal of Cu(II) from aqueous solutions, *Water Science & Technology*, 2013, in press.

27. Jia, Hanzhong; Wang, Chuanyi*: Adsorption and dechlorination of 2,4-dichlorophenol (2,4-DCP) on a multi-functional organo-smectite templated zero-valent iron composite, *Chemical Engineering Journal*, 2012, 191, 202-209.

28. Jia, Hanzhong; Fan, Xiaoyun, Li, Shouzhu, Wang, Chuanyi: Effect of groundwater geochemistry on pentachlorophenol remediation by smectite-templated nanosized Pd0/Fe0 Environmental Science and Pollution Research, *Environmental Science and Pollution Research*, 2012, 19, 3498-3505

29. Wang, Chuanyi, Guest Editor, Eco- and Energy-Driven Inorganic Materials, Special Issue for *Current Inorganic Chemistry*, 2012, 2, 93.

30. Wang, Chuanyi and Nuraje, Nurxat, Guest Editors, “Functional Green Nano-materials”, Special Issue for *Nanoscience & Nanotechnology-Asia*, 2012, 2, 77.

IV. 胶体、生物体系微观过程的荧光及拉曼光谱学研究

31. Wang, Chuanyi; Wang, Yong.; and Gorski, J. P. et al.: Confocal Laser Raman Microspectroscopy of Biomineralization Foci in UMR 106 Osteoblastic Cultures Reveals Temporally Synchronized Protein Changes Preceding and Accompanying Mineral Crystal Deposition, *J. Biol. Chem.*, 2009, 284, 7100-7113.

32. Wang, Chuan-yi; Liu, Chun-yan*; Wang, Yue and Shen, Tao: Spectral Characteristics and Photosensitization Effect on TiO_2 of Fluorescein in AOT Reversed Micelles. *J. Colloid &*

Interface Sci. 1998, ***197***, 126-132.
33. Wang, Chuan-yi; Liu, Chun-yan; etc. Spectroscopic Studies of Thiocyanate in Silver Hydrosol and the Influence of Halide Ions, ***Spectrochimica Acta A***: 1999, ***55***, 991-998.
34. Wang, Chuan-yi; Liu, Chun-yan; Liu, Yun; Zhang, Zhi-ying: Surface Enhanced Raman Scattering Effect for Ag/TiO_2 Composite Nanoparticles, ***Applied Surface Science***, 1999, 147, 52-57.
35. Wang, Chuan-yi; Liu, Chun-yan; Wang, Wei-qin and Shen, Tao: Photochemical Events in the Photosensitization of Colloidal TiO_2 Particles by a Squaraine Dye. ***J. Photochem. Photobiol. A: Chem.*** 1997, ***109***, 159-164.
36. Wang, Chuan-yi; Liu, Chun-yan; etc: Investigation on the Behavior of Porphyrins at the Surface of the Colloidal Silver Particles. ***J. Photochem. Photobiol. A: Chem.***, 1997, ***104***, 159-163.

研究领域：
环境功能材料与技术、光电催化、胶体与表面/界面化学、激光光谱学等

学术任职：
1）编委（Editor Board）：国际刊物(1) ***Journal of Analytical Sciences, Methods and Instrumentation (JASMI)***；(2) ***Precision Instrument and Mechanology (PIM)***；(3) ***Instrument Science***；(4) ***Advances in Nano Research***
2）客座主编（Guest Editor）：国际刊物(1) ***Current Inorganic Chemistry***；(2) ***Nanoscience & Nanotechnology-Asia***

获奖及荣誉：
中科院院长奖学金优秀奖（1998)；德国洪堡学者奖(1998)；中国材料研究学会科学技术奖二等奖（2011）

代表性论著：
1. Wang, Chuanyi Ed., ***Recent Research Developments in Physical Chemistry: Surfaces and Interfaces of Nanostructured Systems***, Transworld Research Network, India, 2007.
2. Wang, Chuan-yi and Liu, Chun-yan: Supported Metal Clusters in ***Encyclopedia of Surface and Colloid Science***, Hubbard, Arthur and Barbara, Santa Eds, Marcel Dekker, NY, p4581-4601, April, 2002.
3. Jia, Hanzhong; Wang, Chuanyi*: “Nanosized Zero-Valent Iron (nZVI) by Clay Minerals: Synthesis, Characterization and Water Remediation” in Vol 4 titled "Energy and Environment" of Nanotechnology, Govil J. N. Ed., Chapter 159, STUDIUM PRESS LLC, 2012.

承担科研项目情况：
负责中科院-国家外专局创新团队国际伙伴计划、中科院“西部行动”计划、中国科学院“引进国外杰出人才”（百人计划）择优支持、中科院仪器装备研制计划、国家自然科学基金、中科院交叉创新团队、中国科学院“西部之光”联合学者、新疆自治区科技支撑计划-国际合作等项目。

研究领域：
环境功能材料与技术、光电催化、胶体与表面/界面化学、激光光谱学等

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