
个人简历

张铁锐, “百人计划” 研究员、博导
中国科学院理化技术研究所
中国科学院光化学转换与功能材料重点实验室
北京市海淀区中关村东路 29 号, 邮编: 100190
E-mail: tierui@mail.ipc.ac.cn
电话: (010)8254-3428 传真: (010)6255-4670
主页: <http://zhanglab.ipc.ac.cn>



教育经历

09/1998 – 08/2003	吉林大学, 化学学院有机化学系	理学博士
09/1994 – 08/1998	吉林大学, 化学基地班	理学学士

研究工作经历

11/2009 – 至今	中国科学院理化技术研究所, 中国科学院光化学转换与功能材料重点实验室, “百人计划” 研究员、博导, 主要从事纳米材料的可控合成、组装及其光催化性能研究	
02/2007 – 10/2009	美国加州大学河滨分校, 化学系和化工系, 博士后 (Prof. Yadong Yin and Prof. Yushan Yan 研究组), 从事介孔空心纳米材料的制备及催化应用研究	
08/2005 – 01/2007	美国阿肯色大学, 化学与生物化学系, 博士后 (Prof. Z. Ryan Tian 研究组), 从事氧化锌和二氧化钛纳米材料的研究及光催化应用	
10/2004 – 08/2005	加拿大国家纳米研究所&阿尔伯塔大学, 化学系, NIH 博士后 (Prof. Hicham Fenniri 研究组), 从事具有 SERS 活性的条形码树脂的制备及其作为传感器的研究	
09/2003 – 09/2004	德国马普胶体界面研究所, 胶体系, “洪堡” 学者 (Prof. Markus Antonietti and Prof. Charl F. J. Faul 研究组), 研究杂多金属氧酸盐的组装及其光电性能	

奖励

2015	第 45 届世界化学大会青年化学家旅行奖
2014	中科院 “百人计划” 结题终期评估-优秀
2013	第 44 届世界化学大会青年化学家旅行奖
2013	国家自然科学基金委 “优秀青年科学基金”
2012	中组部 “万人计划” 首批 “青年拔尖人才支持计划”
2011	第十三届全国青年催化学术会议最佳口头报告奖
2010	第二届 “SCOPUS 寻找未来科学之星” 材料领域银奖
2010	中科院 “百人计划” 择优支持

主持或参加的科研项目及人才基金项目

- 1) 国家重点基础研究发展计划(973计划), 2014CB239402、人工光合成太阳能燃料的基础、2014/01-2018/12、525万元、在研、子课题负责人。
- 2) 国家自然科学基金“优秀青年科学基金”项目, 51322213、微纳结构材料表界面、2014/01-2016/12、100万元、在研、主持。
- 3) 中组部“万人计划”-首批“青年拔尖人才支持计划”, 微纳米结构的表/界面构筑与催化性能、2013/01-2015/12、240万元、在研、主持。
- 4) 国家重点基础研究发展计划(973计划), 2013CB834505、分子聚集体的化学:多层次功能组装体构筑与动态调控、2013/01-2017/12、100万元、在研、参与(研究骨干)。
- 5) 中国科学院重点部署项目, KGZD-EW-T05、能源化学转化的基元与催化科学问题、2014/01-2015/12、70万元、在研、参与(研究骨干)。
- 6) 北京市科委先导与优势材料创新项目, 高效光解水制氢纳米催化剂研制(光催化分解法)、2015/07-2017/06、100万元、参与(研究骨干)。
- 7) 国家自然科学基金面上项目, 51572270、可见光响应氮掺杂钼基纳米半导体光催化剂的可控制备及光解水制氢性能研究、2016/01-2019/12、76.2万元、在研、主持。
- 8) 北京市自然科学基金面上项目, 2152033、纳米钼酸盐的化学控制合成、非金属掺杂改性及其可见光催化制氢性能、2015/01-2017/06、18万元、在研、主持。
- 9) 国家自然科学基金面上项目, 51172245、可见光响应型半导体基介孔纳米晶复合微球光催化材料的可控制备及其光催化性能研究、2012/01-2015/12、60万元、在研、主持。
- 10) 中科院理化技术研究所所长基金项目, 无批准号、透明导电石墨烯薄膜的制备及在光电子学中的应用、2014/01-2015/12、50万元、在研、主持。
- 11) 中国科学院科技创新“交叉与合作团队”, 无批准号、基于光能-化学能转化的二氧化碳还原反应研究、2012/01-2015/12、20万元、结题、参与(研究骨干)。
- 12) 中科院理化技术研究所所长基金项目, 无批准号、功能纳米材料的化学控制合成、组装、光电特性及催化性能研究、2011/01-2015/12、50万元、在研、主持。
- 13) 国家自然科学基金重大研究计划培育项目, 91127005、二氧化硅颗粒可逆的组装与解组装介导的光控开关催化、2012/01-2014/12、70万元、结题、主持。
- 14) 教育部归国留学基金项目, 无批准号、介孔SiO₂空心球封装纳米催化剂材料的设计、合成及性能研究、2012/01-2013/12、3.8万元、结题、主持。
- 15) 化学生物传感与计量学国家重点实验室开放基金项目, 201105、点击化学法制备稳定、可功能化的水溶性纳米晶及其在细胞成像中的应用、2012/03-2014/03、6万元、结题、主持。
- 16) 中国科学院知识创新工程重要方向性项目, KG CX2-EW-311-3、太阳能光(电)催化制氢与还原二氧化碳、2011/01-2013/12、420万元、结题、主持。
- 17) 中国科学院“百人计划”择优支持项目, 无批准号、功能纳米材料的化学控制合成、组装、光电特性及催化性能研究、2011/01-2013/12、200万元、结题、主持。
- 18) 北京市自然科学基金面上项目, 2112042、金属/半导体纳米复合可见光催化剂降解水中有机染料污染物、2011/01-2013/12、11万元、结题、主持。

- 19) 国家自然科学基金青年基金项目, 20901081、"摇铃"型介孔二氧化硅包裹纳米颗粒催化剂的自模板法制备及催化性能研究、2010/01-2012/12、25 万元、结题、主持。
- 20) 吉林大学无机合成与制备化学国家重点实验室开放基金项目、2011-05、空腔介孔结构纳米复合高效催化剂研究、2011/01-2012/12、5 万元、结题、主持。
- 21) 浙江理工大学应用化学与生态染整工程浙江省重中之重学科生态染整技术教育部工程研究中心开放基金项目、YR2010004、纳米颗粒/二氧化硅复合催化剂的制备及光催化降解有机染料污染物、2011/01-2012/12、4 万元、结题、主持。

主要研究领域

- ✓ 发展新型高效光催化剂用于水分解制氢, CO₂还原, 污染物降解和有机物转化
- ✓ 发展非均相新型高效纳米催化剂用于有机物转化
- ✓ 胶体纳米结构: 合成、表面改性、组装及催化应用等

出版物及影响

在国际核心期刊发表同行评阅SCI收录论文97篇, 包括3篇*Adv. Mater.*, 1篇*Adv. Funct. Mater.* (两个材料科学领域顶级期刊), 3篇*Nano Lett.* (纳米技术领域顶级期刊), 4篇*Angew. Chem. Int. Ed.*和2篇*J. Am. Chem. Soc.* (两个化学科学领域顶级期刊)。

引用次数: > 3000; H指数影响因子: 30

学术兼职

会员:

中国化学会青年工作者委员会-委员 (2014 年 01 月-至今)
中国材料研究学会纳米材料与器件分会-理事 (2014 年 04 月-至今)
中国感光学会光催化专业委员会-委员 (2013 年 01 月-至今)
IAOEES-理事 (2014 年 7 月-至今)
第五届中国青年科技工作者协会-会员 (2014 年 8 月-至今)
中国科学院青年联合会-第四届常委 (2015 年 7 月-至今)
中国材料学会-永久会员
中国化学会-永久会员
美国化学会-会员

基金评阅:

国家自然科学基金, 中科院-英国工程及物理科学研究委员会联合项目, 北京市自然科学基金, 国家节能中心, 南京 321 人才引进计划, 山东省青年科学家科研奖励基金, 浙江省自然科学基金, 中国博士后基金

杂志编辑:

副主编, <i>Science Bulletin</i>	2015-迄今
编委, <i>Scientific Reports</i>	2014-迄今
编委, <i>Journal of Nanotechnology and Smart Materials</i>	2015-迄今
编委, <i>Journal of Materials Sciences and Applications</i>	2015-迄今

编委, <i>Journal of Nano Studies & Technology (IJNST)</i>	2015-迄今
编委, <i>International Journal of Carbon Nanotechnology</i>	2014-迄今
编委, <i>International Open Journal of Renewable & Sustainable Energy</i>	2014-迄今
编委, <i>Nano Open</i>	2014-迄今
编委, <i>Open Journal of Physical Chemistry</i>	2012-迄今
编委, <i>Nanoscience & Nanotechnology-AISA</i>	2011-迄今
编委, <i>Journal of Nanoscience Letters</i>	2010-2011

国际期刊特约审稿人:

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. Lett.; Mater. Res. Bull.; Mater. Sci. Eng. A; 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

媒体报道

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. “Microcaps Made of Nanopaper”, *ZDNET*, June 11, **2006**.

国内外学术邀请报告

1. “Mesoporous silica for enhanced catalytic performances of nanocatalysts”, International Symposium on Nanomaterials and Nanotechnology 2015, Beijing, China, 2015/09/01.
2. “介孔空心的微纳米结构催化剂”，ChinaNANO 2015 中国纳米青年论坛，中国北京，2015/09/01。
3. “Visible light-responsive semiconductor photocatalysts for efficient hydrogen production”, 5th Young Scholars Symposium on Nano & New Energy Technology, Suzhou, China, 2015/08/29.
4. “Semiconductor based photocatalysts for visible light-driven photocatalytic H₂ production”, Asian Pacific Conference on Chemistry of Materials 2015 (APCCOM 2015), Beijing, China, 2015/08/19.
5. “Utilization of mesoporous silica to efficiently enhance catalytic performances of nanocatalysts”, IUPAC 45th World Chemistry Congress (IUPAC-2015), Busan, Korea, 2015/08/14.
6. “孔性空心微纳米结构材料”，吉林大学，中国珠海，2015/08/06。
7. “可见光响应无机半导体光催化产氢催化剂的结构设计与性能调控”，2015 光催化产业大会，中国成都，2015/07/29。
8. “可见光响应无机半导体光催化产氢催化剂”，第 15 届全国青年催化学术会议，中国合肥，2015/07/22。
9. “Critical roles of mesoporous silica on the enhanced catalytic performances of nanocatalysts”, International Conference on Advanced Complex Inorganic Nanomaterials (ACIN 2015), Namur, Belgium, 2015/07/14.
10. “Effective utilization of mesoporous silica to significantly improve catalytic performances of nanocatalysts”, 8th International Conference on Materials for Advanced Technologies (ICMAT 2015), Singapore, 2015/07/02.
11. “孔性空心微纳米结构材料”，华中科技大学，中国武汉，2015/06/26。
12. “孔性空心微纳米结构材料”，中国科学院北京纳米能源与系统研究所，中国北京，2015/06/09。
13. “Earth-abundant cocatalysts for semiconductor-based photocatalytic water splitting”, International Workshop on Graphene and C₃N₄-based Photocatalysts (IWGCP 2015), Wuhan, China, 2015/06/07.

14. “介孔空心的微纳米结构催化剂”，京区物质科学青年科学家论坛，中国北京，2015/01/27。
15. “单层水滑石纳米片的可控制备及性能研究”，第三届化学与材料金砖论坛 2014，中国北京，2014/12/25。
16. “可见光响应分解水制氢的介孔空心无机半导体催化剂”，2014 年光催化学术年会暨光催化中青年学者论坛，中国杭州，2014/11/30。
17. “孔性空心微纳米结构材料”，海南大学，中国海口，2014/10/26。
18. “Mesoporous and hollow semiconductor photocatalysts for visible-light-driven hydrogen production”, International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM2014), Haikou, China, 2014/10/25.
19. “Highly robust two-dimensional sandwich-like graphene-based nanocomposite catalysts”, China-Italy Bilateral Symposium on Graphene 2014, Dalian, China, 2014/09/20.
20. “可见光响应介孔半导体基催化剂”，第二届全国青年化学物理学家论坛，中国贵阳，2014/08/30。
21. “介孔空心微纳米结构催化剂”，2014 年青年化学论坛：化学与西部资源能源，中国兰州，2014/08/23。
22. “介孔空心的微纳米可见光光催化剂”，第十三届固态化学与无机合成学术会议，中国长春，2014/08/17。
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. “纳米半导体光催化剂及其可见光分解水制氢”，中国化学会第 29 届学术年会，中国北京，2014/08/07。
25. “介孔微纳米结构催化剂”，中国化学会第 29 届学术年会，中国北京，2014/08/06。
26. “可见光响应光解水制氢的无机半导体光催化剂”，第十四届全国太阳能光化学与光催化学术会议，中国哈尔滨，2014/07/30。
27. “无机半导体可见光催化分解水制氢”，首届全国微纳米体系发光与光电性质学术会议，中国长春，2014/07/25。
28. “基于无机半导体的可见光光催化产氢”，中国材料大会 2014，中国成都，2014/07/05。
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. “孔性空心微纳米结构材料”，中国科学院兰州化学物理研究所，中国兰州，2014/06/20。
31. “孔性空心微纳米结构材料”，西北师范大学，中国兰州，2014/06/19。
32. “孔性空心微纳米结构材料”，天津大学，中国天津，2014/06/04。

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. “孔性空心微纳米结构材料”，国家纳米科学中心，中国北京，2014/05/05。
37. “Semiconductor photocatalysts for efficient visible-light-driven H₂ evolution”, International Symposium on Energy and Environmental Photocatalytic Materials, Wuhan China, March 23, 2014.
38. “半导体基可见光响应催化剂光催化产氢”，2013年能源颗粒前沿研讨会，中国北京，2013/12/14。
39. “介孔空心微纳米结构催化剂”，2013全国科学院联盟材料化工分会催化与分离技术研讨会，中国宁波，2013/12/12。
40. “介孔空心微纳米结构催化剂”，2013纳米催化青年研讨会，中国苏州，2013/11/16。
41. “介孔空心的微纳米结构”，北京工业大学，中国北京，2013/11/01。
42. “Facile hydrothermal synthesis of reduced graphene oxide/Sn₂Nb₂O₇ composites with enhanced visible light photocatalytic activity”, 6th Asia-Pacific Congress on Catalysis (APCAT-6), Taipei, 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. “孔性空心微纳米结构材料”，中国海洋大学，中国青岛，2013/09/25。
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. “纳米催化和与纳米生物”，首届“功能复合材料”交流研讨会，中国无锡，2013/08/23。
49. “晶面调控的高效光催化剂”，第十三届全国光化学学术讨论会，中国西安，2013/08/08。
50. “光催化剂的晶面调控”，2013·中国光催化论坛及产业大会，中国北京，2013/08/01。
51. “晶面调控的高效光催化剂”，第14届全国青年催化学术会议，中国长春，2013/07/29。
52. “介孔空心的微纳米结构”，北京师范大学，中国北京，2013/07/10。
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