流域水循环模拟与调控国家重点实验室

客座教授简历

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| 出生年月 | 1958年2月 | 国籍 | 中国 |
| 学历 | 博士 | 职称 | 教授 |
| 研究方向 | 水污染控制理论与技术，城市污水处理回用技术，环境生物技术、环境界面化学等。 |
| 工作单位 | 东华大学 |
| 个人简历 | 柳建设，博士，教授，博士生导师，东华大学环境科学与工程学院院长、环境科学与工程一级学科博士点博士后流动站站长，上海市环境工程重点学科带头人。获首届全国高等学校优秀骨干教师称号和宝钢优秀教师奖，全国百篇优秀博士学位论文获得者。入选教育部重点骨干教师资助计划和上海人才发展资金资助计划，国家创新团队成员，担任中国印染行业协会副会长，中国能源学会理事，中国可持续发展研究会理事，国际生物湿法冶金学术委员会委员，上海市环境工程技术协会理事，上海市环境科学学会理事，上海市学位评定委员会委员。近年来，先后主持、承担“973计划”项目，国家自然科学基金创新群体项目，国家发改委高技术产业化示范工程项目，国家自然科学基金，全国优秀博士论文作者专项基金，教育部博士点基金，水利部城市污水处理回技术集成及推广专项等国家和省部科研项目10余项。在国内外刊物上发表学术论文120余篇，被SCI、EI、ISTP等收录70余篇次；获国家技术发明二等奖1项，国家科技进步奖2项，获湖南省科技进步一等奖1项，中国高等学校十大科技进展1项，省部级科技进步二等奖4项；申请国家发明专利15项，授权发明专利7项，参与编制国家标准1项。 |
| 代表性论著 | * 近期发表论文30余篇**：**

1、Ramjaun N. Sadiqua, Yuan Ruixia, Wang Zhaohui\*, **Liu Jianshe\***. Degradation of reactive dyes by contact glow discharge electrolysis in the presence of Cl- ions: kinetics and AOX formation. Electrochimica Acta (In press: 10.1016/j.electacta.2011.09.052)2、Yuan Ruixia, Ramjaun N. Sadiqua, Wang Zhaohui\*, **Liu Jianshe\***. Effects of chloride ion on degradation of Acid Orange 7 by sulfate radical-based advanced oxidation process: Implications for formation of chlorinated aromatic compounds. J.Hazard.Mater. (In press: 10.1016/j.jhazmat.2011.09.007)3、Wang Zhaohui, Xie Xuehui, **Liu Jianshe\***. Numerical modeling of potential profiles in electrical double layer of Acidithiobacillus ferrooxidans cell surface. The Chinese Journal of Nonferrous Metals, 2011, 21(6), 1485-1490. 4、Zhang Lisha, Wang Huanli, Chen Zhigang, Wong Po Keung, **Liu Jianshe\***. Bi2WO6 micro/nano-structures: Synthesis, modifications and visible-light-driven photocatalytic applications. Applied Catalysis B: Environmental. 2011, 106: 1-13. 5、Xu He, Zheng Qiaolia,Yang Ping, **Liu Jianshe\***, JinLitong.Sensitive Voltammetric Detection of Trace Heavy Metals in Real Water Using Multi-Wall Carbon Nanotubes/Nafion Composite Film Electrode. Chin. J. Chem., 2011, 29:805-812.6、Xu He, Zheng Qiaolia,Yang Ping, **Liu Jianshe\***, Xing SuJie& JinLitong. Electrochemical synthesis of silver nanoparticles-coated gold nanoporous film electrode and its application to amperometric detection for trace Cr (VI). Sci. China Chem., 2011, 54 (6): 1004-1010.7、Wang Zhaohui**\***, Yuan Ruixia, Guo Yaoguang, Xu Lei, **Liu Jianshe\***. Effects of chloride ions on bleaching of azo dyes by Co(2+)/oxone regent: Kinetic analysis. Journal of Hazardous Materials. 2011, 190: 1083-1087. 8、Gao Erle, **Liu Jianshe****\***. Rapid Determination of Mercury Species in Sewage Sludge by High-Performance Liquid Chromatography On-line Coupled with Cold-Vapor Atomic-Fluorescence Spectrometry after Ultrasound-assisted Extraction. Analytical Sciences. 2011, 27(6): 637-641. 9、Xia Lexian, Yin Chu, Cai Liyuan, Qiu Guanzhou, Qin Wenqing, Peng Bin, **Liu Jianshe\***. Metabolic changes of Acidithiobacillus caldus under Cu(2+) stress. Journal of Basic Microbiology. 2010, 50(6): 591-598.10、Cheng Bocai, Wan Cuixiang, Yang Shiliang, Xu Hengyi, Wei Hua, **Liu Jianshe\***, Tian Wanhong, Zeng Ming. Detoxification of Deoxynivalenol by Bacillus Strains. Journal of Food Safety. 2010, 30(3): 599-614.11、Xie Xuehui, Fu Jin, Wang Huiping, **Liu Jianshe\***. Heavy metal resistance by two bacteria strains isolated from a copper mine tailing in China. African Journal of Biotechnology. 2010, 9(26): 4056-4066. 12、Zheng Chunli, Nie Li, Qian Lin, Wang Zhilou, Liu Guizhen, **Liu Jianshe\***. K30, H150, and H168 Are Essential Residues for Coordinating Pyridoxal 5'-Phosphate of O-Acetylserine Sulfhydrylase from Acidithiobacillus ferrooxidans. Current Microbiology. 2010, 60(6): 461-465. 13、Wang Zhaohui, Xie Xuehui, Xiao Shengmu, **Liu Jianshe\***. Adsorption behavior of glucose on pyrite surface investigated by TG, FTIR and XRD analyses. Hydrometallurgy. 2010, 102(1-4):87-90. 14、Xia Lexian, Yin Chu, Dai Songlin, Qiu Guanzhou, Chen Xinhua, **Liu Jianshe\***. Bioleaching of chalcopyrite concentrate using Leptospirillum ferriphilum, Acidithiobacillus ferrooxidans and Acidithiobacillus thiooxidans in a continuous bubble column reactor. Journal of Industrial Microbiology & Biotechnology. 2010, 37(3): 289-295.15、Wang Zhaohui, Xie Xuehui, Xiao Shengmu, **Liu Jianshe\***. Comparative study of interaction between pyrite and cysteine by thermogravimetric and electrochemical techniques. Hydrometallurgy. 2010, 101(1-2): 88-92. 16、Xu He, Yang Ping, Zheng Qiaolia, **Liu Jianshe\***, JinLitong. A Simple and Sensitive Method for the Detection of Trace Pb(II) and Cd(II) based on Nafion-coated Antimony Film Electrode. Chin. J. Chem., 2010, 28:2287-2292.17、Dai Yunjie, **Liu Jianshe\***, Zheng Chunli, Wu Anna, Zeng Jia, Qiu Guanzhou. Cys92, Cys101, Cys197, and Cys203 Are Crucial Residues for Coordinating the Iron-Sulfur Cluster of RhdA from Acidithiobacillus ferrooxidans. Current Microbiology. 2009, 59(5): 559-564.18、Zhang Yanfei, Cherney Maia M., Solomonson Matthew, **Liu Jianshe\*.** Michael N. G. James, Joel H. Weiner, Preliminary X-ray crystallographic analysis of sulfide: quinone oxidoreductase from Acidithiobacillus ferrooxidans. Acta Crystallographica Section F-Structural Biology and Crystallization Communications. 2009, 65: 839-842.19、Xie Xuehui, Xiao Shengmu, **Liu Jianshe\*.** Microbial communities in acid mine drainage and their interaction with pyrite surface. Current Microbiology. 2009, 59(1): 71-77. 20、Zheng Chunli, Zhang Yanfei, Liu Yuandong, **Liu Jianshe\***. Characterization and Reconstitute of a [Fe4S4] Adenosine 5’-Phosphosulfate Reductase from Acidithiobacillus ferrooxidans Curr Microbiol. 2009, 58(6): 586–592. 21、Xia Lexian, Dai Songlin, Yin Chu, Hu Yuehua, **Liu Jianshe\***, Qiu Guanzhou. Comparison of bioleaching behaviors of different compositional sphalerite using Leptospirillum ferriphilum, Acidithiobacillus ferrooxidans and Acidithiobacillus caldus. J Ind Microbiol Biotechnol. 2009, 36(6): 845–851. 22、Xiao Shengmu, Xie Xuehui, **Liu Jianshe\***. Microbial communities in acid water environments of two mines, China. Environmental Pollution. 2009, 157(3): 1045–1050.23、Zeng Jia, Zhang Ke, **Liu Jianshe\***, Qiu Guanzhou. Expression, Purification, and Characterization of Iron-Sulfur Cluster Assembly Regulator IscR from Acidithiobacillus ferrooxidans. Journal of Microbiology and Biotechnology. 2008, 18(10): 1672-1677.24、Xiao Shengmu, Xie Xuehui, He Zhiguo, Hu Yuehua, **Liu Jianshe\***. Compostions and structures of archaeal communities in acid mineral bioleaching systems of Dongxiang copper mine and Yinshan lead-zinc mine, China. Current Microbiology. 2008, 57(3): 239-244. 25、Zeng Jia, Jiang Huidan, Geng Meimei, Wang Yiping, Zhang Xiaojian, **Liu Jianshe\***, Qiu Guanzhou. In vitro assembly of [Fe4S4] cluster in high potential iron-sulfur protein from Acidithiobacillus ferrooxidans. Current Microbiology. 2008, 57(2): 161-166.26、Zeng Jia, Wang Ming, Zhang Xiaojian, Wang Yiping, Ai Chenbin, **Liu Jianshe\***, Qiu Guanzhou. Expression, Purification, and Characterization of Iron-Sulfur Cluster Assembly Regulator IscR from Acidithiobacillus ferrooxidans. Journal of Microbiology and Biotechnology. 2008, 18(10): 1672-1677.27、Xia Lexian, liu Xinxing, Zeng Jia, Yin Chu, Gao Jian, **Liu Jianshe\***, Qiu Guanzhou. Mechanism of enhanced bioleaching efficiency of Acidithiobacillus ferrooxidans after adaptation with chalcopyrite. Hydrometallurgy. 2008, 92(3-4): 95-101.28、Jiang Huidan, Zhang Xiaojian, Ai Chenbin, Liu Yuandong, **Liu Jianshe\***, Qiu Guanzhou, Zeng Jia. Asp97 is a crucial residue involved in the ligation of the [Fe4S4] cluster of IscA from Acidithiobacillus ferrooxidans. Journal of Microbiology and Biotechnology. 2008, 18(6): 1070-1075.29、Zeng J., Jiang Huidan, Liu Yuandong, **Liu Jianshe\***, Qiu Guanzhou. Expression, purification and characterization of a high potential iron-sulfur protein from Acidithiobacillus ferrooxidans. Biotechnology Letters. 2008, 30(5): 905-910.30、Xia Lexian, Zeng Jia, Ding Jianlan, Yang Yi, Zhang Bo, **Liu Jianshe\***, and Guanzhou Qiu. 2007. Comparison of three induced mutation methods for Acidiothiobacillus caldus in processing sphalerite. Minerals Engineering. 2007,20:1323-1326. 31、**LIU Jian-she\***, XIE Xue-hui, XIAO Sheng-mu, WANG Xiu-mei, ZHAO Wen-jie, TIAN Zhuo-li. Isolation of Leptospirillum ferriphilum by single-layered solid medium. J.Cent.South Univ.Technol. 2007, 1:20-28.* 专利情况：

授权国家发明专利7项： 1. 一种低品位黄铜矿型硫化铜矿细菌浸出用催化剂，ZL01131582.2，2004。
2. 硫化矿浸矿菌株的原生质体融合技术，ZL02114387.0，2004。
3. 嗜酸氧化亚铁硫杆菌冷冻保藏保护剂，ZL200610032334.2，2007。
4. 一种从细菌中提取高分子量基因组的方法，ZL200610032560.0，2007。
5. 一种对矿物细菌浸出液的连续萃取装置，ZL200610032411.4，2007。
6. 一种便利凝胶染色装置， ZL 200810202421.7。
7. 一种矿山废水治理方法，ZL201010589082.x。

申请（公开）国家发明专利9项：1. 一种细菌对矿物的选择性吸附装置。专利公开号 CN101191791。
2. 一种分离纯化嗜铁钩端螺旋菌的方法。专利公开号CN101109009。
3. 嗜酸氧化亚铁硫杆菌冷冻干燥保藏保护剂。专利公开号CN101012438A。
4. 利用硫氧化细菌消除黄铜矿浸出过程钝化膜的方法。专利公开号CN101016583A。
5. 可有效减少生物冶金工艺中负载有机相中杂质夹带的装置。专利申请号200720062492.2，2008。
6. 一种鞘氨醇单胞菌DX-T3-03菌株及其提取方法。专利申请号201010541581.1。
7. 一种微生物提取黄钾铁矾的方法。专利申请号201010534857.3。
8. 一种矿山废水治理方法。专利申请号201010589082.x。
9. 一种脱色多种活性染料的细菌的筛选方法。专科申请号201110170426.8。
* 编制实施的国家标准：

嗜酸氧化亚铁硫杆菌及其活性的基因芯片检测方法。GB/T20929-2007。 |
| 与实验室研究团队合作计划 | “水多”、“水少”，水资源时空分配不均是水循环领域研究的重点之一。然而，伴随我国经济的高速发展，工业化产业化力度不断增强，人民物质精神需求的日益增长，水质问题日渐凸显，成了水资源和水环境领域研究的一个新热点和交叉点。“水脏”、“水臭”、“水浑”是目前水环境领域水体所面临的主要问题。如何监管改善水体水质、落实保护水体生态、保障维护人民用水安全是环境领域研究水质的主要任务和目标。流域水循环模拟与调控国家重点实验室是集流域水循环综合模拟研究与调控的水科学综合性研究平台。今后，与重点实验室研究团队的和合作计划主要体现在以下四个方面：1. 开展以流域水循环为基础的流域重点湖库水质生态监测、管理与模拟等综合研究和实例应用；
2. 开展以流域水循环为基础条件下的多种生态水质伴生过程模拟研究与综合应用；
3. 开展加强流域水体水质生态方面的综合管理规划措施和具体实施方案的研究及工程试点；
4. 开展流域水体水质重点和新型污染物的迁移转化规律研究，提出可靠的污染物治理方法和实施方案。
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| 备注 |  |