



## 个人简介:

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技术职务: 教授,

专业及学历: 化学工程与技术, 博士

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## 工作及教育经历:

201810-至今 天津工业大学 化学与化工学院, 副院长, 教授, 博士生导师

天津市绿色化工过程工程重点实验室 主任

201307-201810 天津工业大学 环境与化学工程学院, 教授, 博士生导师

200909-201009 韩国化学研究院绿色化学部, 高级访问学者,

200207-201307 辽宁石油化工大学 化学化工与环境学部, 讲师, 副教授, 教授;

200207-200507 兰州大学 化学化工学院 博士学位

## 研究方向:

催化材料, 吸附分离, 石油加工, 绿色化工

## 荣誉称号:

教育部新世纪优秀人才支持计划

天津市特聘教授

天津市131创新型人才培养工程第一层次人选

天津市化学工程与技术学科领军人才

辽宁省高校优秀人才支持计划

辽宁青年科技奖

辽宁优秀青年骨干教师

抚顺市十大杰出青年

### 获奖：

1. Towards understanding the microstructures and hydrocracking performance of sulfided Ni-W catalysts, 辽宁省自然科学学术成果奖一等奖201307
2. 稠环氮化物在Cu(I)Y分子筛上的吸附机理研究, 辽宁省自然科学学术成果奖, 一等奖, 201007
3. 氯醇法生产环氧丙烷尾气回收工艺技术, 辽宁省科技进步奖二等奖200812
4. 冶炼炉衬废镁砖有价金属回收工艺技术, 辽宁省科技进步奖三等奖, 200912
5. Jianzhou Gui, Youquan Deng, Zide Hu, Zhaolin Sun, A novel task-specific ionic liquid for Beckmann rearrangement: a simple and effective way for product separation, Tetrahedron Letters, 2004, 45, 2681–2683; 2004-2007 Top 50 Most cited paper awards, 国际学术期刊, 200812

### 主持的主要科研项目：

1. 天津市高等学校创新团队, 负责人
2. 天津市131创新型人才团队, 负责人
3. 布朗斯特酸离子液体结构对其腐蚀性和催化性能的调控机制, 国家自然科学基金 (No. 21576211)
4. Development of magnesium-based medium-temperature sorbents for CO<sub>2</sub> capturing in a energy exchangeable fluidized bed, 韩国教育部 (KCCS 2020 project)
5. 功能化离子的分子设计及其在油品脱硫中的应用, 教育部新世纪优秀人才支持, (NCET-11-1011)
7. 新型高效糠醛液相加氢催化剂的工业放大, 中石化
8. 高活性油脂加氢催化剂的中试放大, 中石化
9. 过渡金属催化剂活性金属络合浸渍过程研究, 中海油
10. 重整生成油脱氯工艺优化及高效脱氯剂的研究, 中石油

## 近三年代表性学术论文：

- 1 Yao Lu, Aijing Ma, Yifu Yu, Rui Tan, Chengwei Liu, Peng Zhang, Dan Liu, and **Jianzhou Gui\***, Engineering Oxygen Vacancies into LaCoO<sub>3</sub> Perovskite for Efficient Electrocatalytic Oxygen Evolution, **ACS Sustainable Chem. Eng.**, 2019, 7 (3), 2906
2. Yiming Zhang, Xiaoyan Yang, Peng Zhang, Dan Liu,\* Zhimei Zou, Rui Tan, and **Jianzhou Gui,\*** Morphology-tunable & Template-free fabrication of MoS<sub>2</sub> nanostructures with enhanced photoreduction activities for Cr(VI). **Journal of Photochemistry and Photobiology A: Chemistry**, 2019, 373,176
3. Zhimei Zou, Xiaoyan Yang, Peng Zhang Yiming Zhang XiaoxiaoYan, Rongmei Zhou, Dan Liu\*, Lin Xu ,**Jianzhou Gui\***, Trace carbon-hybridized ZnS/ZnO hollow nanospheres with multi-enhanced visible-light photocatalytic performance, **Journal of Alloys and Compounds**,775, 2019,481
4. Shuyun Cao, Dan Liu\*, Hui Ding, Jinghui Wang, Hui Lu, **Jianzhou Gui,\*** Corrosion inhibition effects of a novel ionic liquid with and without potassium iodide for carbon steel in 0.5 M HCl solution: An experimental study and theoretical calculation, **Journal of Molecular Liquids**, 2019, 275, 729
5. Xiaoyan Yang, Yi Li, Peng Zhang\*, Rongmei Zhou, Hailong Peng, Dan Liu\*, and **Jianzhou Gui\***, Photoinduced in Situ Deposition of Uniform and Well-Dispersed PtO<sub>2</sub> Nanoparticles on ZnO Nanorods for Efficient Catalytic Reduction of 4-Nitrophenol, **ACS Appl. Mater. Interfaces**, 2018, 10 (27), 23154
6. Lixia Yang, Dan Liu\*, Pingping Wang, Hwimin Seo, **Jianzhou Gui\***, and Yong-Ki Park\* ,Toward the Insights into Fast CO<sub>2</sub> Absorption over Novel Nanostructured MgO-Based Sorbent, **Ind. Eng. Chem. Res.** 2018, 57, 10591
- 7 Xiaoyan Yang, Hailong Peng, Zhimei Zou, Peng Zhang, Xuefeng Zhai, Yiming Zhang, Chengwei Liu, Liu Dan\* and **Jianzhou Gui\***, Diethylenediamine-assisted template-free synthesis of a hierarchical TiO<sub>2</sub> sphere-in-sphere with enhanced photocatalytic performance, **Dalton Trans.**, 2018, 47, 16502
8. Xuefeng Zhai, Chengwei Liu, Qiang Chang, Chunqiu Zhao, Rui Tan, Hailong Peng, Dan Liu\*, Peng Zhang and **Jianzhou Gui\***, TiO<sub>2</sub>-nanosheet-assembled microspheres as Pd-catalyst support for highly-stable low-temperature CO oxidation, **New J. Chem.**, 2018, 42, 18066
9. Rongmei Zhou, Xiaoyan Yang, Peng Zhang, Lixia Yang, Chengwei Liu, Dan Liu\* and **Jianzhou Gui\***, Insights into catalytic roles of noble-metal-free catalysts CoxSy for reduction of 4-nitrophenol, **Phys. Chem. Chem. Phys.**, 2018, 20, 27730
10. XiaoyanYang, Yiming Zhang, Peng Zhang, Na He, QingxiangYang, Hailong Peng, BinZhai, **Jianzhou Gui\***, pH modulations of fluorescence LaVO<sub>4</sub>:Eu<sup>3+</sup> materials with different morphologies and structures for rapidly and sensitively detecting Fe<sup>3+</sup> ions, **Sensors and Actuators B: Chemical**, 2018,267, 608

11. Yiming Zhang , Xiaoyan Yang , Na He, Peng Zhang , Yongqi Ding , Dan Liu\*, Zhimei Zou, **Jianzhou Gui\***, One-step hydrothermal fabrication of erythrocyte-like ZnS/ZnO composite with superior visible light photocatalytic performance, **Materials Letters** ,2018, 228, 305
12. Aijing Ma, Liu Gu, Yingming Zhu, Ming Meng, **Jianzhou Gui,\*** Yifu Yu\* and Bin Zhang, Controlled synthesis of hierarchically crossed metal oxide nanosheet arrays for diesel soot eliminatio, **Chem. Commun.**, 2017, 53, 8517
13. Peng Zhang, Xiaotong Han, Han Hu, **Jianzhou Gui\***, Mingyu Li, Jieshan Qiu\*, In-situ growth of highly uniform and single crystalline Co<sub>3</sub>O<sub>4</sub> nanocubes on graphene for efficient oxygen evolution, **Catal. Commun.**, 2017, 88, 81
14. Peng Zhang, Yang Chen, Xiaoyan Yang, **Jianzhou Gui,\*** Yi Li, Hailong Peng, Dan Liu, and Jieshan Qiu\*, Pt/ZnO@C Nanocable with Dual-Enhanced Photocatalytic Performance and Superior Photostability , **Langmuir** 2017, 33, 4452
15. Peng Zhang , Xiaoyan Yang, Zongbin Zhao, Beibei Li, **Jianzhou Gui \***, Dan Liu, Jieshan Qiu \* One-step synthesis of flowerlike C/Fe<sub>2</sub>O<sub>3</sub> nanosheet assembly with superior adsorption capacity and visible light photocatalytic performance for dye removal, **Carbon** 2017, 116, 59
16. Shuyun Cao, Dan Liu\*, Peng Zhang, Lixia Yang, Peng Yang, Hui Lu , **Jianzhou Gui,\*** Green Brønsted acid ionic liquids as novel corrosion inhibitors for carbon steel in acidic medium, **Scientific Reports**, 2017, 7, 8773
17. Peng Zhang, Xuedan Song, Chang Yu, Jianzhou Gui, and Jieshan Qiu\*, Biomass-Derived Carbon Nanospheres with Turbostratic Structure as Metal-Free Catalysts for Selective Hydrogenation of o-Chloronitrobenzen, **ACS Sustainable Chem. Eng.** 2017, 5, 7481.
- 18 Hailong Peng, Xiaoyan Yang, Peng Zhang, Yiming Zhang, Chengwei Liu, Dan Liu\* and Jianzhou Gui\* Diethylenetriamine-assisted in situ synthesis of TiO<sub>2</sub> nanoparticles on carbon nanotubes with well defined structure and enhanced photocatalytic performance, **RSC Adv.**, 2017, 7, 50216
19. Peng Zhang, Xiaoyan Yang, Hailong Peng, Dan Liu\*, Hui Lu, Junfu Wei, Jianzhou Gui\*, Magnetically recoverable hierarchical Pt/Fe<sub>2</sub>O<sub>3</sub> microflower: Superior catalytic activity and stability for reduction of 4-nitrophenol, **Catal. Commun.**, 2017,100, 214

### 代表性专利:

1. 低碳炔芳构化方法, 专利号 ZL 00122963.X
2. 一种脱氧催化剂及其制备方法和应用, 专利号 ZL 200610134892.X
3. 杂多酸型离子液体及其在氧化脱硫中的应用, 专利号 ZL 201510005652.9; .
4. 一种中温二氧化碳吸附剂及其制备方法和应用, 专利号 ZL 2015 1 0392559.8
- 5 一种高氯容液相脱氯剂及其制备方法和应用, 专利号 ZL 2014 1 0776492.3
6. 复合离子液体钢铁缓蚀剂及应用, 专利号 ZL 2014 10776405.4

7. 一种催化湿式氧化催化剂的制备方法, 专利号 ZL 2015 1 0132896.3
8. 二氧化碳吸附剂及其二氧化碳捕获工艺, PCT 专利, 10-2013-0137793
9. 一种环戊烯选择性氧化制备环戊酮的方法, 申请号: CN201510132897
- 10 一种高温吸收二氧化碳的正硅酸锂材料的制备方法, 申请号: 201710205799.1
- 11.一种高温吸收二氧化碳的锆酸锂材料的制备方法, 申请号: 201710594892.6