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#### 工作及教育经历:

- 1、兰州大学 化学化工学院 博士学位 200207-200507
- 2、辽宁石油化工大学 化学化工与环境学部, 讲师, 副教授, 教授; 200207-201307
- 3、韩国化学研究院绿色化学部, 高级访问学者, 2009.09-2010.09
- 4、天津工业大学 环境与化学工程学院, 教授, 博士生导师, 201307- 至今

#### 研究方向:

石油加工, 催化材料, 吸附分离, 绿色化学;

#### 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“三年千人”人选

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

抚顺市抚顺市第四届自然科学青年学科(专业)带头人

香港“求是”奖学金

#### 获奖与社会兼职:

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

#### 主持及参加的科研项目:

1. 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, 201601-201912, 国家自然科学基金 (No. 21576211), 项目负责人。
2. Development of magnesium-based medium-temperature sorbents for CO<sub>2</sub> capturing in a energy exchangeable fluidized bed, 2012.6-2017.6, 韩国教育部 (KCCS 2020 project), 2.5 亿韩元, 项目负责人
3. 功能化离子的分子设计及其在油品脱硫中的应用, 2012.01-2014.12, 教育部新世纪优秀人才支持, 50 万, 项目负责人 (NCET-11-1011)
4. 新型功能化离子液体的合成及其在清洁氧化中的应用 (20706027), 2008.12-2010.12, 国家自然科学基金资助, 23 万, 项目负责人
5. 稀散元素杯芳烃新型材料的合成及性能研究 (209031), 2009.01-2011.12, 教育部重点项目, 项目负责人
6. 新型高效糠醛液相加氢催化剂的工业放大, 中石化, 60 万, 项目负责人。
7. 高活性油脂加氢催化剂的中试放大, 中石化, 60 万, 项目负责人
8. 新型油品加氢催化剂的工业制备技术 (20080400041), 2010.01-2012.12, 中石化, 80 万, 项目负责人
9. 新型高效糠醛液相加氢催化剂的中试放大, 中石化, 35 万, 项目负责人。

#### 代表性学术论文:

- 1 Shaozheng Hu, Ruirui Jin, Guang Lu, Dan Liu and **Jianzhou Gui\***, The properties and photocatalytic performance comparison of Fe<sup>3+</sup>-doped g-C<sub>3</sub>N<sub>4</sub> and Fe<sub>2</sub>O<sub>3</sub>/g-C<sub>3</sub>N<sub>4</sub> composite catalysts, *RSC Adv.*, 2014, 4, 24863–24869.
2. Shaozheng Hu, Lin Ma, Jiguang You, Fayun Li, Zhiping Fan, Fei Wang, Dan Liu and **Jianzhou Gui\***, A simple and efficient method to prepare phosphorus modified g-C<sub>3</sub>N<sub>4</sub> visible light photocatalyst, *RSC Adv.*, 2014, 4, 21657–21663.
- 3 Shaozheng Hu, Lin Ma, Jiguang You, Fayun Li, Zhiping Fan, Guang Lu, Dan Liu, **Jianzhou Gui\***, Enhanced visible light photocatalytic performance of g-C<sub>3</sub>N<sub>4</sub> photocatalysts co-doped with iron and phosphorus, *Applied Surface Science* 311 (2014) 164–171.
4. Mei Yang, Shaozheng Hu\*, Fayun Li, Zhiping Fan, Fei Wang, Dan Liu, **Jianzhou Gui\***, The influence of preparation method on the photocatalytic performance of g-C<sub>3</sub>N<sub>4</sub>/WO<sub>3</sub> composite photocatalyst, *Ceramics International* 40(2014)11963–11969.
5. Jinna Zhang, Dandan Hao, Hui Lu, Wenguang Leng, **Jianzhou Gui**, Yanan Gao, Facile fabrication of a novel microporous Schiff-base networks polymer membrane on surface modified porous  $\alpha$ -Al<sub>2</sub>O<sub>3</sub> support, *Materials Letters* 126(2014)259–262.

6. 左臣盛, 周思宇, 孙成志, 王兴之, 刘道胜, 徐辉旻, 朴容起, **桂建舟\***, 刘丹, 变温镁基 CO<sub>2</sub> 吸附剂的制备及应用 I. Na / Mg 物质的量比; 燃料化学学报, 2014,42,(7): 884-889;
7. 金瑞瑞, 游继光, 张倩, 刘丹, 胡绍争, **桂建舟\***; Fe 掺杂 g-C<sub>3</sub>N<sub>4</sub> 的制备及其可见光催化性能; 物理化学学报, Acta Phys. -Chim. Sin. 2014, 30 (9), 1706-1712.
8. Shaozheng Hu, Fayun Li, Zhiping Fan, **Jianzhou Gui**. The effect of H<sub>2</sub>-CCl<sub>4</sub> mixture plasma treatment on TiO<sub>2</sub> photocatalytic oxidation of aromatic air contaminants under both UV and visible light, Chemical Engineering Journal, 2014 ,236, : 285-292.
9. Shaozheng Hu, Fayun Li, Zhiping Fan, **Jianzhou Gui**. Improved photocatalytic hydrogen production property over Ni/NiO/N-TiO<sub>2-x</sub> heterojunction nanocomposite prepared by NH<sub>3</sub> plasma treatment, Journal of Power Sources, 2014,250 : 30-39
- 10 Jian Zhang, Anjie Wang, Yanjuan Wang, Haiyan Wang, **Jianzhou Gui**, Heterogeneous oxidative desulfurization of diesel oil by hydrogen peroxide: Catalysis of an amphipathic hybrid material supported on SiO<sub>2</sub>, Chemical Engineering Journal, 2014, 245, 65-70.
11. Dan Liu, **Jianzhou Gui\***, Daosheng Liu, Xilai Peng, Shuang Yang, Zhaolin Sun, Deep oxidative desulfurization of real diesel catalyzed by Na<sub>2</sub>WO<sub>4</sub> in ionic liquid, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 2013, 35(1): 1-8 .
12. Jin Na Zha, Hui Lu, **Jian Zhou Gui**, Jong Pyo Kimb Sou Hwan Son, Jung Hoon Park, Structure, nonstoichiometry, sintering and oxygen permeability of perovskite SrCo<sub>1-2x</sub>(Fe,Nb)<sub>x</sub>O<sub>3-δ</sub> (x = 0.05, 0.10) oxides, Materials Science and Engineering, B 2013,178, 443-448.
13. Dan Liu, **Jianzhou Gui\***, Yong-Ki Park, Shuang Yang, Yuhuan Gao, Xilai Peng, Zhaolin Sun, Deep oxidative desulfurization of real diesel with task-specific ionic liquid, Korean J. Chem. Eng., 2012, 29(1): 49-53.
- 14.Dan Liu, **Jianzhou Gui**, Feng lu, Zhaolin Sun, Yong-Ki Park, New Simple Synthesis Route for Decatungstate Hybrids: Novel Thermo-Regulated Phase Transfer Catalysts for Selective Oxidation of Alcohols, Catal Lett ,2012, 142(11):1330-1335.
- 15.Cui Guoqi, Wang Jifeng, Fan Hongfei, Sun Xiaoyan, Jiang Yan, Wang Shaojun,Liu Dan, **Gui Jianzhou\***, Towards understanding the microstructures and hydrocracking performance of sulfided Ni-W catalysts: Effect of metal loading, Fuel Processing Tech., 2011, 92:2320-2327.
16. Dan Liu, **Jianzhou Gui\***, Daosheng Liu, Juyoung Lee, Shuang Yang, Zhaolin Sun, Oxidation of dibenzothiophene catalyzed by Na<sub>2</sub>WO<sub>4</sub> in a halogen-free ionic liquid, Reac Kinet Mech Cat., (2011) 104:111-123.
- 17 **Gui Jianzhou\***, Liu Dan, Wang Chan, Darong Min, Sun Zhaolin. Deep Oxidative Desulfurization with Task-specific Ionic Liquids: an experimental and computational study, J. Mol. Catal. A, 2010, 331(1-2):64-70
- 18 Liu Dan, **Gui Jianzhou\***, Yang Yulian, Lu Feng, Sun Zhaolin.Oxidative aromatization of Hantzsch 1,4-dihydropyridines catalyzed by ferric perchlorate in ionic liquids with air, Synth. Commun., 2010, 40, 1004-1008.
- 19 **Gui Jianzhou**, Liu Dan, Yang Yulian, Lu Feng, Sun Zhaolin. One-pot synthesis of 3,4-dihydropyrimidin-2(1H)-ones catalyzed by acidic ionic liquids under solvent-free conditions, Synth. Commun., 2009, 39, 3436-3443.
20. Liu Dan, **Gui Jianzhou**, Sun Zhaolin. Adsorption structures of heterocyclic nitrogen compounds over Cu(I)Y zeolite: a first principle study on mechanism of the

- denitrogenation and the effect of nitrogen compounds on adsorptive desulfurization[J] Journal of Molecular Catalysis A: Chemical, 2008, 291: 17-21.
21. Liu Dan, **Gui Jianzhou**, Song Lijuan, Zhang Xiaotong, Sun Zhaolin. Deep desulfurization of diesel fuel by extraction with task-specific ionic liquids[J]. Petroleum Science and Technology, 2008, 26(9): 973-982.
22. **Gui Jianzhou**, Liu Dan, Zhang Xiaotong, Song Lijuan, Sun Zhaolin Aromatization of n-hexane under microwave irradiation, Petroleum Science and Technology, 2008, 26(5): 506- 51321.
23. **Gui Jianzhou**, Liu Dan, Chen Xiaomei, Zhang Xiaotong, Song Lijuan and Sun Zhaolin Cyclotrimerization of an aliphatic aldehyde catalyzed by acidic ionic liquid, React. Kinet. Catal. Lett., 2007, 90 (1): 35-43
24. Liu Dan, **Gui Jianzhou**, Zhu Xiangqin, Song Lijuan, Sun Zhaolin. Synthesis and Characterization of Task-Specific Ionic Liquids Possessing Two Brønsted Acid Sites[J]. Synthetic Communications, 2007, 37, (5): 759 – 765
25. Liu Dan, Song Lijuan, **Gui Jianzhou**, Liu Shi and Sun Zhaolin. Adsorption structures of heterocyclic sulfur compounds on Cu (I)Y zeolite: a first principle study[J]. Studies in Surface Science and Catalysis, 2007, 170(B):1699-1704.
26. Liu Dan, **Gui Jianzhou**, Liu Shi, Song Lijuan, Zhang Xiaotong and Sun Zhaolin. A density functional study of the chemisorption of thiophene on Cu(I)Y zeolite[J]. Am. Chem. Soc. Div. Fuel. Chem. Prepr., 2006, 51(1):234-235.
- 27 **Gui Jianzhou**, Liu Dan, Cong Xiaohui, Clean synthesis of adipic acid by direct oxidation of cyclohexene with H<sub>2</sub>O<sub>2</sub> catalyzed by Na<sub>2</sub>WO<sub>4</sub>·2H<sub>2</sub>O and acidic ionic liquid, J. Chem. Res., 2005, 520-522.
- 28 **Gui Jianzhou**, Deng Youquan, Hu Zhide, A novel task-specific ionic liquid for Beckmann rearrangement: a simple and effective way for product separation, Tetrahed. Lett., 2004, 45, 2681-2683.
- 29 **Gui Jianzhou**, Cong Xiaohui, Liu Dan, Zhang Xiaotong. Novel Brønsted acidic ionic liquid as efficient and reusable catalyst system for esterification, Catal. Commun., 2004, 5, 473-477
30. **Gui Jianzhou**, Ban Hongyan, Cong Xiaohui, Zhang Xiaotong, Hu Zhide. Selective alkylation of phenol with tert-butyl alcohol catalyzed by Brønsted acidic imidazolium salts, J. Mol. Catal. A., 2004, 225, 27-31.

#### 发明专利:

- 1.低碳烃芳构化方法, 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. 二氧化碳吸附剂及其二氧化碳捕获工艺 (Carbon dioxide absorbent and carbon dioxide capture process thereof) PCT 专利, 10-2013-0137793;
- 4.杂多酸型离子液体及其在氧化脱硫中的应用, 中国发明专利, 申请号: 201510005652.9;
- 5.复合离子液体钢铁缓蚀剂及应用; 中国发明专利, 申请号: 201410776405.4;
- 6.一种高氯容液相脱氯剂及其制备方法和应用, 中国发明专利, 申请号:201410776492.3,
- 7.一种催化湿式氧化催化剂的制备方法, 中国发明专利, 申请号: CN201510132896
- 8.一种环戊烯选择性氧化制备环戊酮的方法, 中国发明专利, 申请号: CN201510132897

9. 一种中温二氧化碳吸附剂及其制备方法和应用，中国发明专利，申请号：  
201510392559.8