

所属学院 化工学院

学科领域 化学工程与技术

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个人简介

教育背景:

1985.09–1989.07 华东化工学院, 无机化工专业, 工学学士

1993.09–1999.02 华东理工大学, 化学工艺专业, 工学博士

工作经历:

2004.03–至今 华东理工大学 教育部大型工业反应器工程研究中心, 教授 / 主任

2001.09–2004.02 华东理工大学 化学工程与技术博士后流动站, 副教授 / 博士后

1989.07–2001.09 曲阜师范大学 化学系, 副教授 / 副主任

学术任职: 上海市化工协会副会长, 上海市化学化工学会理事、监控化学品专委会主任委员, 中国能源管理教育创新联盟理事等。

研究方向

1、反应器工程

各类反应器技术的研究、开发与设计。特别是径向反应器的设计与工业应用

2、催化剂工程

通过催化剂载体或活性组分的晶体结构与形态调控以及基本物理性质的调变, 进行各类催化剂的研究、开发与应用。

3、化工原料绿色制造

通过新型反应器和催化剂的开发, 借助过程强化和节能降耗技术应用, 实现化工原料的低成本生产和绿色制造。

研究成果及主要发表文章

- 1) Fan Yang, Jie Zhong, Xiaohui Liu*, Xuedong Zhu* A novel catalytic alkylation process of syngas with benzene over the cerium modified platinum supported on HZSM-5 zeolite, Applied Energy, (226):22-30 (2018)
- 2) Yang Ni, Donghai Wang, Yong Jiang, Yanping Gao, Xuedong Zhu*, Haijiao Zhang*, Raspberry-like monodispersity ZnO microspheres for photodegradation of rhodamine B. Materials Research Bulletin, (99):37-44 (2018)
- 3) Xing Lanyu, Wei Zhenhao, Wen Zhenhao, Zhu Xuedong*. Catalytic study for methanol aromatization over hierarchical ZSM-5 zeolite synthesized by kaolin [J]. Petroleum Science & Technology, (9):1-6 (2017)
- 4) Wei Zhenhao, Zhu Kake, Xing Lanyu, Yang Fan, Li Yunsheng, Xu Yarong, Zhu Xuedong*. Steam-assisted transformation of natural kaolin to hierarchical ZSM-11 using tetrabutylphosphonium hydroxide as structure-directing agent: synthesis, structural characterization and catalytic performance in the methanol-to-aromatics reaction [J]. RSC Advances, 7:24015-24021(2017)
- 5) Wei, Zhenhao, Chen, Lifang, Cao, Qingsheng, Wen, Zhenhao, Zhou, Zhuo, Xu, Yarong, Zhu, Xuedong*. Steamed Zn/ZSM-5 catalysts for improved methanol aromatization with high stability, Fuel Processing technology, (162),7:66-77(2017)
- 6) Rui Zhang, Zhenchuan Yu, Lei Wang, Qizhe Shen, Xiaoyan Hou, Xuhong Guo, Junwei Wang, Xuedong Zhu*, and Yuan Yao*, Selective Adsorption and Separation of Organic Dyes with Spherical Polyelectrolyte Brushes and Compressed Carbon Dioxide, Chem. Eur. J., 23, 1-9 (2017)
- 7) Wen, Zhenhao, Xia, Tengfei, Liu, Minghui, Zhu, Kake, Zhu, Xuedong*, Methane formation mechanism in methanol to hydrocarbon process: A periodic density functional theory study, Catalysis Communications, 2016, 75(1): 45-49.
- 8) Zhenhao Wei, Tengfei Xia, Minghui Liu, Qingsheng Cao, Yarong Xu, Kake Zhu, Xuedong Zhu*, Alkaline modification of ZSM-5 catalysts for methanol aromatization: The effect of the alkaline concentration, Front. Chem. Sci. Eng. 2015, 9(4): 450–460, DOI 10.1007/s11705-015-1542-2
- 9) Wang, Donghai, Zhang, Haijiao, Guo, Jingxin, Xu, Huijuan, Zhu, Xuedong*, Jiao, Zheng, Template-free fabrication of rattle-type TiO₂ hollow microspheres with superior photocatalytic performance, RSC Advances, 2014, 4(70), 37311-37319. 2) Q. Zhang, X. Zhu*, H. Kameyama, et al, Numerical investigations on the development of plate reformers: Comparison of different assignments of the chambers, AIChE Journal, 2008, 54, 2702-2716
- 10) H Zhang, Q He, X Zhu*, et al. Surfactant-free solution phase synthesis of monodispersed SnO₂ hierarchical nanostructures and gas sensing properties, CrystEngComm, 2012, 14: 3169-3176, DOI: 10.1039/c2ce06558d
- 11) Haijiao Zhang, Guidong Du, Wenqi Lu, Lingli Cheng, Xuedong Zhu*. Porous TiO₂ hollow nanospheres: synthesis, characterization and enhanced photocatalytic properties, CrystEngComm, 2012, 14: 3793-3801, DOI: 10.1039/c2ce06731e