



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:

1993.9-1997.6 天津大学化工系工学学士

2000.9-2003.7 天津大学化工学院工学硕士

2003.8-2008.8 新加坡国立大学化学与生物分子工程系博士

工作经历:

1997.7-2000.8 齐鲁石化公司助理工程师

2008.9-2009.11 新加坡国立大学化学与生物分子工程系博士后研究员

2009.12-至今华东理工大学化学工程联合国家重点实验室副教授教授

主要荣誉:

2011年“上海市浦江人才”

2012年“教育部新世纪人才”

2014年首届“校长英才奖”

2014年“华东理工大学三八红旗手”

研究方向

主要从事能源与环境领域催化与反应工程研究。研究方向包括：C1化工，高级氧化法污水深度处理技术，动态现场原位（Operando）表征的开发和应用

研究成果及主要发表文章

1. Yang Sun, Zixu Yang, Pengfei Tian, Yiyi Sheng, Jing Xu*, and Yi-Fan Han*, “Oxidative Degradation of Nitrobenzene by a Fenton-like Reaction with Fe-Cu Bimetallic Catalysts”, Appl. Catal. B, 2019, 244, 1-10.
2. Pengfei Tian, Doudou Ding, Yang Sun, Fuzhen Xuan, Xingyan Xu, Jing Xu, Yi-Fan Han, “Theoretical Study of Size Effects on the Direct Synthesis of Hydrogen Peroxide over Palladium Catalysts”, J. Catal., 2019, 369, 95-104
3. Tianyuan Chen, Junjie Su, Zhengpai Zhang, Chenxi Cao, Xu Wang, Rui Si, Xianglin Liu, Bianfang Shi, Jing Xu*, Yi-Fan Han*. “Structure Evolution of Co-CoO_x Interface for Higher Alcohol Synthesis from Syngas over Co/CeO₂ Catalysts”, ACS Catal., 2018, 8, 8606-8617.
4. Xiao-man Zhang, Pengfei Tian, Weifeng Tu, Zhenzhou Zhang, Jing Xu*, and Yi-Fan Han*, “Tuning the Dynamic Interfacial Structure of Copper-Ceria Catalysts by Indium Oxide during CO Oxidation”, ACS Catal., 2018, 8, 5261-5275.
5. Zhengpai Zhang, Jun Zhang, Xu Wang, Rui Si, Jing Xu*, Yi-Fan Han*, “Promotional Effects of Multi-Walled Carbon Nanotube on Iron Catalysts for Fischer-Tropsch to Olefins”, J. Catal., 2018, 365, 71-85.
6. Yiyi Sheng, Yang Sun, Jing Xu*, Jie Zhang, Yi-Fan Han*. Fenton-like Degradation of Rhodamine B over Highly Durable Cu-embedded Alumina: Kinetics and Mechanism AIChE J., 2018, 64, 538-549
7. Zhengpai Zhang, Weiwei Dai, Xinchao Xu, Jun Zhang, Bianfang Shi, Jing Xu*, Weifeng Tu, Yi-fan Han*. “MnO_x Promotional Effects on Olefins Synthesis Directly from Syngas over Bimetallic Fe-MnO_x/SiO₂ Catalysts” AIChE J., 2017, 63, 4451-4464
8. Pengfei Tian, Xingyan Xu, Jing Xu*, Yi-Fan Han*. “Direct and Selective Synthesis of Hydrogen Peroxide over Palladium-Tellurium Catalysts at Ambient Pressure” ChemSuschem, 2017, 10, 3342-3346
9. Wei Mao, Junjie Su, Zhengpai Zhang, Xin-Chao Xu, Weiwei Dai, Donglong Fu, Jing Xu*, Xingguo Zhou, Yi-Fan Han*, “Kinetics study of C₂⁺ oxygenates synthesis from syngas over Rh-MnO_x/SiO₂ catalysts”, Chem. Eng. Sci., 2015, 135, 312-322.
10. Wei Mao, Junjie Su, Zhengpai Zhang, Xin-Chao Xu, Donglong Fu, Weiwei Dai, Jing Xu*, Xingguo Zhou, Yi-Fan Han*, “A mechanistic basis for the effects of Mn loading on C₂⁺ oxygenates synthesis directly from syngas over Rh-MnO_x/SiO₂ catalysts”, Chem. Eng. Sci., 2015, 135, 301-311.
11. Jing Xu*, Ya-Qing Deng, Xiao-Man Zhang, Yan Luo, Wei Mao, Xue-Jing Yang, Like Ouyang, Pengfei Tian, and Yi-Fan Han, “Preparation, Characterization, and Kinetic Study of a Core-Shell Mn₃O₄@SiO₂ Nanostructure Catalyst for CO Oxidation”, ACS Catal., 2014, 4, 4106-4115.
12. Jing Xu*, Ya-Qing Deng, Yan Luo, Wei Mao, Xue-Jing Yang, Yi-Fan Han*, “Operando Raman spectroscopy and kinetic study of low-temperature CO oxidation on an α-Mn₂O₃ nanocatalyst”, J. Catal., 2013, 300, 225-234.
13. Jing Xu*, Like Ouyang, Wei Mao, Xue-Jing Yang, Xin-Chao Xu, Jun-Jie Su, Hui Li, Yi-Fan Han*, “Operando and Kinetic Study of Low-temperature Lean-burn Methane Combustion over a Pd/g-Al₂O₃ Catalyst”, ACS Catal., 2012, 2, 261-269.
14. Jing Xu*, Like Ouyang, Guo-Jin Da, Qian-Qian Song, Xue-Jing Yang, Yi-Fan Han, “Pt promotional effects on Pd-Pt alloy catalysts for hydrogen peroxide synthesis directly from hydrogen and oxygen”, J. Catal., 2012, 285, 74
15. Jing Xu*, Tim White, Ping Li, Chongheng He, Jianguo Yu, Weikang. Yuan, Yi-Fan. Han, “Biphasic Pd-Au alloy catalyst for low-temperature CO oxidation”, J. Am. Chem. Soc. 2010, 132, 10398