



Wenyao Chen

Department: School of Chemical Engineering
Professional field: Chemical Engineering and Technology
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Profile

2022.07-Present East China University of Science and Technology, School of Chemical Engineering, Distinguished Researcher
2019.07-2022.06 East China University of Science and Technology, State Key Laboratory of Chemical Engineering, Postdoctoral Fellow, Collaborative Advisor: Professor Xuezhi Duan
2018.08-2019.06 University of Toronto (UofT), Department of Chemical Engineering, Postdoctoral Fellow, Collaborative Advisor: Professor Ya Huei (Cathy) Chin
2016.12-2017.12 Norwegian University of Science and Technology (NTNU), Jointly Cultivated Doctoral Student under the National Scholarship, Advisor: Academician De Chen
2013.09-2018.06 East China University of Science and Technology, School of Chemical Engineering, Ph.D., Advisor: Professor Xinggui Zhou
2009.09-2013.06 East China University of Science and Technology, School of Chemical Engineering (Outstanding Students Program), Bachelor's Degree in Chemical Engineering and Technology

Research Field

Focusing on low-carbon energy chemical engineering and the synthesis of specialty chemicals, with reaction kinetics as the primary research approach, we have developed dynamic models that incorporate catalyst active site parameters and mesoscale mechanisms. This enables accurate prediction and optimization control of macroscopic catalytic performance:

1. Reaction kinetics theory and analysis methods
2. Green low-carbon novel reaction technologies (such as tandem catalysis)
3. Efficient storage and utilization of hydrogen energy

Research results and main published thesis

As the first author for publishing more than 20 SCI papers in journals such as Acc. Chem. Res., J. Am. Chem. Soc., Angew. Chem. Int. Ed., Nat. Commun., AIChE J.:

- [1] Wen-Yao Chen, Gang Qian, Ying Wan, De Chen, Xing-Gui Zhou, Wei-Kang Yuan, Xue-Zhi Duan*. Acc. Chem. Res. 2022, 55, 3230-3241.
- [2] Wen-Yao Chen, Jun-Bo Cao, Wen-Zhao Fu, Jing Zhang, Gang Qian, Jia Yang, De Chen, Xing-Gui Zhou, Wei-Kang Yuan, Xue-Zhi Duan*. Angew. Chem. Int. Ed. 2022, 61, e202200190.
- [3] Wen-Yao Chen, Jun-Bo Cao, Jia Yang, Yue-Qiang Cao, Hao Zhang, Zheng Jiang, Jing Zhang, Gang Qian, Xing-Gui Zhou, De Chen*, Wei-Kang Yuan, Xue-Zhi Duan*. Nat. Commun. 2021, 12, 6888.
- [4] Wen-Yao Chen, Jian Ji, Xiang Feng, Xue-Zhi Duan*, Gang Qian, Ping Li, Xing-Gui Zhou, De Chen*, Wei-Kang Yuan. J. Am. Chem. Soc. 2014, 136, 16736-16739.
- [5] Wen-Yao Chen, Jing-Nan Wang, Yan-Fang Zhang, Jing Zhang, Xue-Zhi Duan, Rui Si, De Chen, Gang Qian*, Xing-Gui Zhou. AIChE J. 2021, 67, e17339.
- [6] Wen-Yao Chen, Da-Li Li, Zi-Jun Wang, Gang Qian, Zhi-Jun Sui, Xue-Zhi Duan, Xing-Gui Zhou, Isaac Yeboah, De Chen. AIChE J. 2017, 63, 60-65.
- [7] Wen-Yao Chen#, Wei-Zhong Zheng#, Jun-Bo Cao, Wen-Zhao Fu, Gang Qian, De Chen, Xing-Gui Zhou, Xue-Zhi Duan*. ACS Catal. 2020, 10, 11417-11429.
- [8] Wen-Yao Chen, Wen-Zhao Fu, Gang Qian, Bing-Sen Zhang, De Chen, Xue-Zhi Duan*, Xing-Gui Zhou. iScience 2020, 100922.
- [9] Wen-Yao Chen, Wen-Zhao Fu, Bing-Xu Chen, Chong Peng*, Gang Qian, De Chen, Xue-Zhi Duan*, Xing-Gui Zhou. J. Catal. 2020, 385, 289-299.
- [10] Wen-Yao Chen#, Shuang-Ming Chen#, Gang Qian, Li Song*, De Chen, Xing-Gui Zhou, Xue-Zhi Duan*. J. Catal. 2020, 389, 492-501.