

南伊利诺伊卡大学 Qingfeng Ge 教授学术报告

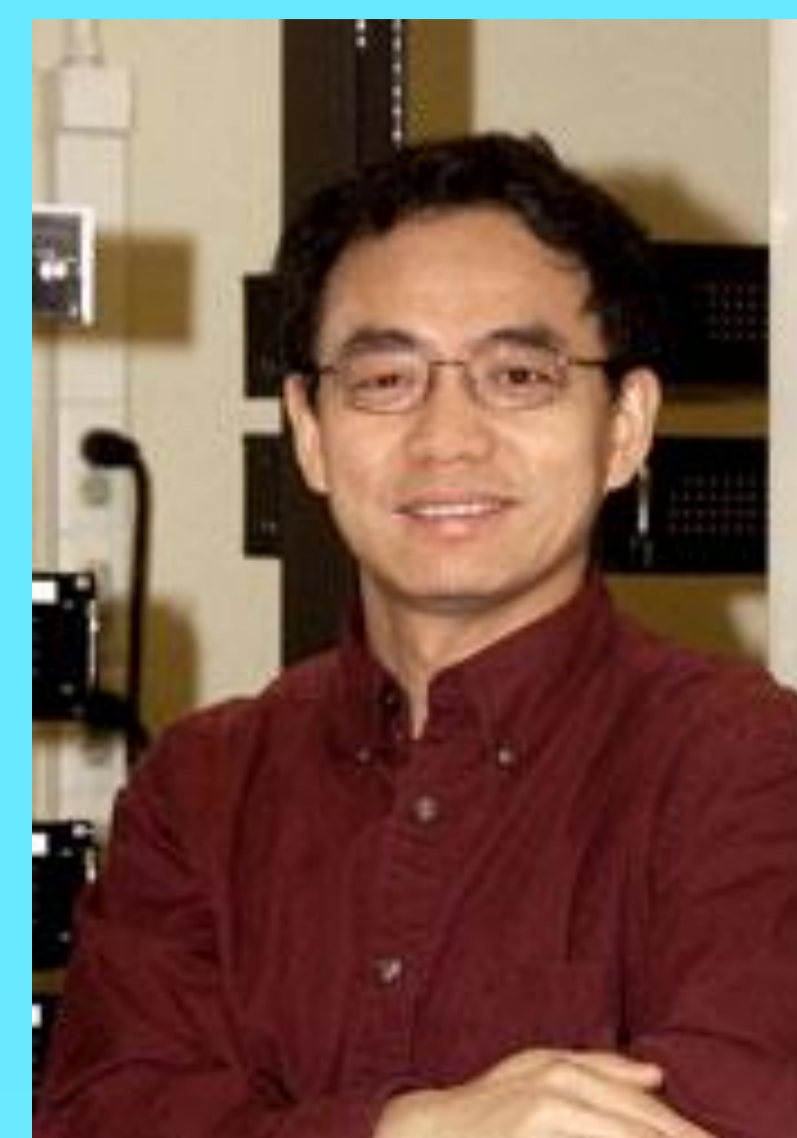
报告题目: Computational Catalysis for Energy-related Applications

时间: 2018年6月18日 15:30-17:00

地点: 中心会议室

主讲人: Qingfeng Ge 教授

南伊利诺伊卡大学化学系



主讲人介绍

Dr. Qingfeng Ge is Professor in Department of Chemistry and Biochemistry, Southern Illinois University Carbondale and Associate Editor of Journal of CO₂ Utilization. Prof. Ge received his education in Chemical Engineering from Tianjin University, China, obtaining BS, MS and PhD degrees. He worked as Research Associate in Copenhagen University, Denmark and Cambridge University, UK and as Research Scientist in University of Virginia before joining SIUC as an Assistant Professor in 2003. He was promoted to Associate Professor in 2007 and to Professor in 2010. Prof. Ge was selected as the winner of 2017 College of Science Scholar Excellence Award and 2018 University-Level Scholar Excellence Award. A main thrust of his research is using modeling/simulation to address materials issues related to energy and environment, including hydrogen storage, CO₂ conversion and utilization, and catalytic biomass conversion. His experiences ranged from experimental characterization and kinetics modeling of catalysts to first principles based simulations of various materials. He is one of the 70 recipients of the Presidential Hydrogen Fuel Initiative awards in the US in 2005.

报告摘要

Sustainable development of the world requires efficient processes and materials that can convert sustainable resources into fuels and chemicals. The design and development of robust heterogeneous catalysts for practical applications have been hindered by our limited understanding of the underlying physical/chemical processes that govern the catalytic transformations. Recent advances in DFT-based electronic methods, molecular simulations and the availability of computing power provide unprecedented ability to track these molecular transformations and how they proceed at specific sites and within particular environments. This talk discusses our energy-related research over the past several years. More specifically, I will provide an overview of our work on catalysis related to CO₂ conversion and biomass conversion.

欢迎各位参加!

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