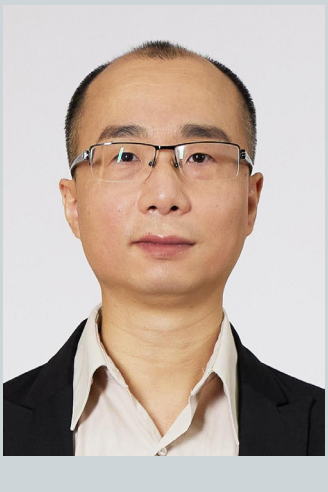

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Profile

Work Experience:

1.East China University of Science and Technology (ECUST), P. R. China, 2010.1- present
Faculty, Chemical Engineering Department, Professor

2.Pacific Northwest National Laboratory (PNNL) U.S.A., 2007 – 2009.11
Postdoctoral research associate
Research focuses on Self-assembled Materials (nanoscale materials and porous solids) (in the group of Dr. Jun Liu).

3.Technical University of Denmark (DTU) Denmark, 2005 - 2006
Postdoctoral research associate in Center for Sustainable and Green Chemistry Research mainly on hierarchical-porous zeolites synthesis (zeolites modified with larger pores), nano gold catalysts for CO removal and aerobic oxidations (in the group of Profs. Claus Hviid Christensen)

4.Jacobs University Bremen (JUB) Germany 2003 - 2005
Postdoctoral research associate in School of Engineering and Sciences
Research mainly on mesoporous material functionalization with gold nanoparticles and activity in catalytic aerobic oxidation of cyclohexane, syntheses of high-surface area materials through supercritical fluids and ionic liquids, controlled formation of nano metal oxides upon silica (in the group of Prof. Ryan Richards).

Teaching Experience:

Teaching Surface Chemistry and Applications for undergraduates, Surface Chemistry and Catalysis for graduates.

Education:

1.Ph. D in Physical Chemistry, Department of Chemistry, Fudan University, China (2003).
Advisor: Prof. Heyong He

2.M.S. in Physical Chemistry, Modern Physics Institute, North West University of China (2000).
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3.B.S. in Inorganic Chemistry, North West University of China (1997).

Research Field

1.Zeolite synthesis and catalytic applications
2.Methane dry reforming catalyst design
3.Porous sorbents and separations

Research results and main published thesis

1.Liu Q., Liu Y., Zhou N., Zhang P. H., Liu Z. C., Vovk E. I., Zhu Y-A.*, Yang Y. *, Zhu K. K.*, Realization of High-Pressure Dry Methane Reforming by Suppressing Coke Deposition with Co-Rh Intermetallic Clusters, Appl. Catal. B-Environ., 2023, in press.

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4.Wang Y. C., Yu J. S., Yang F., Zhao Y. T., Zhuang J. G., Lu X. F., Zhu X. D., Zhu K. K.*, Synthesis of ZSM-22 with enhanced acidity using alcoholamine as structure directing agent to promote hydroisomerization of n-heptane, Ind. Eng. Chem. Res., 2023. https://doi.org/10.1021/acs.iecr.3c01028

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11.Liu Z. X., Gao F. F., Zhu Y.-A, Liu Z. C., Zhu K. K.*, Zhou X. G., Bi-reforming of methane with steam and CO_2 under pressurized conditions on a durable Ir-Ni/$MgAl_2O_4$ Catalyst, Chem. Commun., 2020, 56, 13536-13539. (Cover story).

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