个人简介：

姓名：梅东海　　出生年月：1968 年 3 月

技术职务：教授　专业及学历：化学工程，博士

办公电话：

电子邮箱：dhmei@tjpu.edu.cn

工作及教育经历：

2018/09–至今，天津工业大学化学和化工学院 教授

2006/04–2018/09，美国太平洋西北国家实验室 研究员

1999/01–2006/04，美国 弗吉尼亚大学化学工程系 研究科学家

1997/04–1998/12，清华大学化学工程系 博士后

1993/09–1996/12，石油大学（北京）化学工程系 博士研究生

1990/09–1993/06，北京化工学院化学工程系 硕士研究生

1982/09–1986/07，西北大学化学工程系 本科

研究方向：

1. 基于第一性原理的非均相催化反应理论模型计算
2. 新型化工分离和催化反应的材料设计

代表性学术论文：

(1) Hensley, A.J.R., Wang, Y., **Mei, D.*** and McEwen, J.S.* *"Mechanistic Effects of Water on the Fe-*

Catalyzed Hydrodeoxygenation of Phenol - The Role of Brønsted Acid Sites", **ACS Catalysis**, 8, 2200-2208. (2018)

(2) Nie, L.,† **Mei, D.,**† Xiong, H.F.†, Peng, B., Ren, Z. B., Hernandez, X.I.P., DeLaRiva, A., Wang, M, Engelhard, M.H., Kovarik, L., Datye, A.K.* and Wang, Y.* "*Activation of Surface Lattice Oxygen in Single Atom Pt/Ceria for Low Temperature CO Oxidation*", **Science**, 358, 1419-1423. (2017)

(3) **Mei, D.*** and Lercher, J.A. *"Mechanistic Insights into Aqueous Phase Propanol Dehydration in H-ZSM-5 Zeolite"*, **AIChE Journal**, 63, 172-184. (2017)

(4) Yoon, Y., Rousseau, R.,* Weber, R.S., **Mei, D.*** and Lercher, J.A.* "*First-Principles Study of Phenol Hydrogenation on Pt and Ni Catalysts in Aqueous Phase*", **Journal of the American Chemical Society**, 136, 10287-10298. (2014)

(5) **Mei, D.***, Glezakou, V.A., Lebarbier, V.M., Kovarik, L., Wan, H.Y., Albrecht, K.O., Rousseau, R.* and Dagle, R.A.* *"Highly Active and Stable $MgAl_2O_4$-supported Rh and Ir Catalysts for Methane Steam Reforming: A Combined Experimental and Theoretical Study"*, **Journal of Catalysis**, 316, 11-23. (2014)

(6) **Mei, D.***, Rousseau, R., Kathmann, S. M., Glezakou, V.A., Engelhard, M.A., Jiang, W.L., Wang, C.M., Gerber, M.A., White, J.F. and Stevens, D.J. "*Ethanol Synthesis from Syngas over Rh-based/SiO_2 Catalysts: A Combined Experimental and Theoretical Modeling Study*", **Journal of Catalysis**, 271, 325-342. (2010)

(7) **Mei, D.**, Neurock, M.* and Smith, C.M. *"Hydrogenation of Acetylene-Ethylene Mixtures over Pd and Pd-Ag Alloys: First-principles-based Kinetic Monte Carlo Simulations"*, **Journal of Catalysis**, 268, 181-195. (2009)

(8) Kwak, J.H., Hu, J.Z., **Mei, D.**, Yi, C.W., Kim, D.H., Peden, C.H.F.*, Allard, L.F. and Szanyi, J.* "*Coordinatively Unsaturated Al^{3+} Centers as Binding Sites for Active Catalyst Phases of Platinum on γ-Al_2O_3*", **Science**, 325, 1670-1673. (2009)

(9) **Mei, D.***, Xu, L. and Henkelman, G. "*Dimer Saddle Point Searches to Determine the Reactivity of Formate on Cu(111)*", **Journal of Catalysis**, 258, 44-51. (2008)

(10) **Mei, D.**, Sheth, P.A., Neurock, M.* and Smith, C.M. *"First-principles-based Kinetic Monte Carlo Simulation of the Selective Hydrogenation of Acetylene over Pd(111)"*, **Journal of Catalysis**, 242, 1-15. (2006)