



Department: School of Chemical Engineering
Professional field: Chemical Engineering and Technology
E-mail: xuhaitao@ecust.edu.cn

Profile

1) Education

2002: PhD, Department of Chemistry, University of Science & Technology of China
1999: MS, Department of Physical Chemistry, University of Science & Technology of China
1994: BS, Department of Chemistry, AnQing Normal University

2) Academic Experience

2009-present: Associate Professor, School of Chemical Engineering, ECUST
2007-2009: JSPS fellowship, Kyushu University, JP
2004-2007: Associate professor, Department of Chemistry, Tongji University
2002-2004: Postdoctoral Research, Department of Chemistry, Tsinghua University

3) Current Membership in Professional Organizations

Members of the Chinese Chemical Association
Members of the Shanghai water purification Association

4) Honors and Awards

1999: “Outstanding graduate Student”, University of Science & Technology of China

Research Field

1. Metal nanocrystalline encapsulated in MOFs and synergistic catalytic-conversion of carbon oxides
2. MOFs assembly and pore structure precise adsorption-separation/ Microelectronics and chemical indust
3. Bifunctional structure of MOFs membrane controlled functional zeolite / metal nanocrystals and CO₂ conversion to liquid fuel

Research results and selected published papers

1. Haitao Xu,* Xikuo Luo, Jiajia Wang, Yuqun Su, Xi Zhao, Yansong Li “Spherical Sandwich Au@Pd@UIO-67/Pt@UIO-n (n = 66, 67, 69) Core–Shell Catalysts: Zr-Based Metal–Organic Frameworks for Effectively Regulating the Reverse Water–Gas Shift Reaction” ACS Applied Materials & Interfaces 2019, 11, 22, 20291–20297 IF=8.456
2. Yuqun Su, Haitao Xu,* Jiajia Wang, Xikuo Luo, Zhen-liang Xu, Kefu Wang, and Wenzhong Wang “Nanorattle Au@PtAg encapsulated in ZIF-8 for enhancing CO₂ photoreduction to CO” Nano Res 2019, 12(3), 625–630 IF=8.515
3. Quqing Han, Haitao Xu,* Yuqun Su, Zhen-liang Xu, Kefu Wang, Wenzhong Wang “Noble metal (Pt, Au@Pd) nanoparticles supported on metal organic framework (MOF-74) nanoshuttles as high-selectivity CO₂ conversion catalysts” J Catal 2019, 370, 70–78. IF=7.723
4. Xi Zhao, Haitao Xu,* XiaoXiao Wang, Zhizhong Zheng, Zhenliang Xu, and Jianping Ge “Monodisperse Metal-Organic Framework Nanospheres with Encapsulated Core-Shell Nanoparticles Pt/Au@Pd@{Co₂(oba)₄(3-3 bpdh)₂}·4H₂O for the Highly Selective Conversion of CO₂ to CO” ACS Appl. Mater. Interfaces 2018, 10, 15096–15103. IF=8.456
5. Zhizhong Zheng, Haitao Xu,* Zhenliang Xu, and Jianping Ge “A Monodispersed Spherical Zr-Based Metal–Organic Framework Catalyst, Pt/Au@Pd@UIO-66, Comprising an Au@Pd Core–Shell Encapsulated in a UIO-66 Center and Its Highly Selective CO₂ Hydrogenation to Produce CO” Small 2018, 14, 1702812 DOI: 10.1002/sml.201702812 IF=10.856
6. Yu Han, Yuanyuan Li, Xiaoxiao Wang, Yansong Li, Haitao Xu*, Siyan Chen, Zhen-liang Xu “Influence of metal ions on the selective catalytic oxidation properties of isostructural MOFs” Inorg. Chim. Acta 471 (2018) 176–179. IF=2.26
7. Haitao Xu,* Yansong Li, Xikuo Luo, Zhenliang Xu and Jianping Ge * “Monodispersed gold nanoparticles supported on a zirconium-based porous metal–organic framework and their high catalytic ability for the reverse water–gas shift reaction” Chemical Communications, 2017, 53, 7953–7956. IF=6.32
8. Jiajia Wang, Yuqing Han, Haitao Xu,* Zhen-Liang Xu, Microporous assembly and shape control of a new Zn metal–organic framework: Morphology-dependent catalytic performance Applied Organometallic Chemistry. 2018; 32: e4097 IF= 3.58
9. Jiajia Wang, Xiaoxiao Wang, Haitao Xu,* Xi Zhao, Zhizhong Zheng, and Zhen-liang Xu “A Zinc (II) Porous Metal–Organic Framework and Its Morphologically Controlled Catalytic Properties in the Knoevenagel Condensation Reaction” ChemPlusChem 2017, 82, 1182 – 1187. IF=3.21
10. Yuanyuan Li, Yuqun Su, Jing Xu, Zhen-liang Xu, and Haitao Xu* Shape-Controlled Micro-Crystals of Chain-Like Zn(II) Coordination Polymer [Zn(NIA)EDA]·xH₂O and Its Catalytic Performance” Bulletin of The Chemical Society of Japan 2017, 90, 1152–1156. IF=3.53
11. Xiaoxiao Wang, Haitao Xu,* Yu Han, Yansong Li, Chen Sheng, Zhenliang Xu, Jieyu Xu, Mengyan Wang “Selective catalytic properties determined by the molecular skeleton: Two new isostructural coordination polymers[{M(H₂O)₅}₂(l-4-bpdh)(oba)]_n (M = Co, Ni)” Inorganica Chimica Acta, 2017, 461, 15–20. IF=2.26
12. Yu Han, Haitao Xu,* Xiaoxiao Wang, Yansong Li, Siyan Chen, Zhen-liang Xu “Selective catalytic properties of new microporous cobalt metal-organic frameworks controlled by their structural topologies” Materials letters 2016, 184, 73–77. IF=2.68
13. Haitao Xu*, Yongxia Gou, Jing Ye, Zhen-liang Xu, Zixuan Wang “Selectively catalytic activity of metal–organic frameworks depending on the N-position within the pyridine ring of their building blocks” Journal of Solid State Chemistry. 2016, 237, 323–329. IF=2.12
14. Jing Ye, Haitao Xu*, Jingsi Qiu, Zhen-Liang Xu “Layered Metal–Organic Framework [Zn₂(bpdh)(chdc)₂] for Aqueous Encapsulation and Sensitization of Visible-emitting Rare-earth Cations” Materials letters 2016, 168, 203–206. IF=2.68
15. Jing Ye, Haitao Xu*, Xiaoqi Li, Zhen-Liang Xu “New Metal–Organic Frameworks constructed by 2,5-bis(3-pyridyl)-3,4-diaza-2,4-hexadiene and the dicarboxylic Ligands: Enhanced Photocatalytic Effect” Inorganic Chemistry Communications. 2016, 66, 36–40. IF=1.81
16. Jing Ye, Yongxia Gou, Zhen-Liang Xu, Haitao Xu* “Selectively Catalytic Micro- and Nanocrystals of Metal–Organic Framework [Co(4-bpdh)(HIA)]_n” Journal of Solid State Chemistry. 2015, 226, 142–146. IF=2.12
17. Jing Ye, Xiaoqi Li, Zhen-liang Xu, Haitao Xu* “Cobalt(II) Metal–Organic Framework Micro-Nanoparticles: Molecular Self-Assembly from Layers to Micropores Showing the Conjunctive Orientation of Carboxyl Groups”Journal of molecular structure 2015, 1093, 162–165. IF=2.01
18. Xu Haitao*, Xu Zhenliang, Osamu Sato*. “Water-Switching of Spin Crossover in a Gold Cluster Supramolecular System: From Metal–Organic Frameworks to Catenane”. Microporous and Mesoporous Materials. 2014.197.72–76. IF=3.65
19. Qingxiang Meng, Jing Ye, Zheng-liang Xu, Haitao Xu* “Selectively catalytic pastry-shape micro-crystals: a new linear metal-organic framework with [Cu(NO₃)₂(bpd)(DMF)]_n” Materials letters 2014, 116, 378–381. IF=2.68
20. Xu Haitao, Xu Zhenliang. “A Microporous Coordination Polymer of 2,6-Naphthalenedicarboxylate and Cobalt(II) Showing Reversible Structural and Functional Transformation” Microporous and Mesoporous Materials. 2012, 157, 33–36. IF=3.65
21. Haitao Xu, Osamu Sato, Zhihua Li, and Jianping Ma “A thermally reversible photoinduced magnetic trinuclear complex [Cu₂(bpmen)₂][MoIV(CN)₈]·8H₂O” Inorganic Chemistry Communications. 2012, 15, 311–313. IF=1.81
22. Xu Haitao, GergelyJuhasz, KazunariYoshizawa, MasashiTakahashi, ShinjiKanegawa and Osamu sato. “Mixed-metal complex [Fe(bipe)(Au(CN)₂)₂·MeOH] with gold clusters: a novel two-dimensional polyrotaxane net clipped by aurophilic interaction”. CrystEngComm. 2010, 12, 4031–4034. IF=3.3
23. Xu Haitao, Li Zhihua. “Microporous rare-earth coordination polymers constructed 3 by 1,4-cyclohexanedicarboxylate”. Microporous and Mesoporous Materials. 2008, 115, 522–526. IF=3.65