

Liang Feng, Ph.D.

EDUCATION

Texas A&M University Ph.D. in Chemistry	2016 – 2020
Wuhan University B.S. in Chemistry	2012 – 2016

RESEARCH EXPERIENCE

Northwestern University Postdoctoral Fellow, Advisor: Prof. <i>Fraser Stoddart</i>	Sept. 2020 – present
Texas A&M University Graduate Research Assistant, Advisor: Prof. <i>Hong-Cai Zhou</i>	Sept. 2016 – Aug. 2020
King Abdullah University of Science and Technology Visiting Researcher, Advisor: Prof. <i>Mohamed Eddaoudi</i>	Feb. 2016 – Jun. 2016
University of California, Los Angeles Visiting Researcher, Advisor: Prof. <i>Louis Bouchard</i>	Jul. 2015 – Sept. 2015
Wuhan University Undergraduate Research Assistant, Advisor: Prof. <i>Hexiang Deng</i>	Jan. 2014 – Jan. 2016

HONORS AND AWARDS

Foresight Fellowship in Molecular Machines and Robust Dynamics <i>Foresight Institute</i>	2021
Distinguished Student Award <i>Foresight Institute</i>	2020
Reaxys PhD Prize Finalist <i>Elsevier</i>	2020
Graduate Student Award <i>Materials Research Society</i>	2020
Distinguished Graduate Student Award for Excellence in Research <i>Association of Former Students, Texas A&M University</i>	2020
Dow Chemical Charlene Black Miller '79 Endowed Memorial Fellowship in Chemistry <i>Department of Chemistry, Texas A&M University</i>	2020
Chinese Government Award for Outstanding Self-Financed Students Abroad <i>China Scholarship Council</i>	2020
Science as Art Finalist <i>Materials Research Society</i>	2020
Travel Grants for Early Career Scientists <i>Materials Chemistry Division, Royal Society of Chemistry</i>	2020
Derek & Christiane Barton Graduate Endowed Fellowship <i>Department of Chemistry, Texas A&M University</i>	2019
JEMS Scholarship for Collaborative Research in Chemistry	2019

<i>Department of Chemistry, Texas A&M University</i>	
Martin Corera Memorial Graduate Student Travel Award in Chemistry	2019
<i>Department of Chemistry, Texas A&M University</i>	
Student Travel Award	2019
<i>Division of Inorganic Chemistry, American Chemical Society</i>	
Graduate Student Research and Presentation Travel Award	2019
<i>Office of Graduate and Professional Studies, Texas A&M University</i>	
Visiting Student Research Program (VSRP) Research Scholarship	2015
<i>King Abdullah University of Science and Technology</i>	
Cross-disciplinary Scholars in Science & Technology (CSST) Research Scholarship	2015
<i>University of California, Los Angeles</i>	
Gold Award	2015
<i>Wiley Online Library Best Paper Writing Contest</i>	

PUBLICATIONS (‡ equal contribution)

44. Lo, S.-H.‡, **Feng, L.**‡; Tan, K.; Huang, Z.; Yuan, S.; Wang, K.; Li, B.-H.; Liu, W.-L.; Day, G.; Tao, S.; Yang, C.-C.; Luo, T.-T.; Lin, C.-H.; Wang, S.-L.; Billinge, S.; Lu, K.-L.; Chabal, Y.-J.; Zou, X.; Zhou, H.-C., Rapid Desolvation-Triggered Domino Lattice Rearrangement in a Metal-Organic Framework, *Nat. Chem.*, **2020**, *12*, 90–97.
43. **Feng, L.**; Wang, K.-Y.; Day, G. S.; Ryder, M.; Zhou, H.-C., Destruction of Metal-Organic Frameworks: Positive and Negative Aspects of Stability and Lability, *Chem. Rev.* **2020**, *120*, 13087–13133.
42. **Feng, L.**‡; Wang, K.-Y.‡; Day, G.; Zhou, H.-C., The Chemistry of Multi-component and Hierarchical Framework Compounds, *Chem. Soc. Rev.* **2019**, *48*, 4823-4853.
41. Kirchon, A.‡; **Feng, L.**‡; Drake, H. F.‡; Joseph, E. A.; Zhou, H.-C., From Fundamentals to Applications: A Toolbox for Robust and Multifunctional MOF Materials, *Chem. Soc. Rev.* **2018**, *47*, 8611-8638.
40. **Feng, L.**; Day, G. S.; Wang, K.-Y.; Yuan, S.; Zhou, H.-C., Strategies for Pore Engineering in Zirconium Metal-Organic Frameworks, *Chem*, **2020**, *6*, 2902-2923.
39. **Feng, L.**; Wang, K.-Y.; Yan, T.-H.; Zhou, H.-C., Porous Crystalline Spherulite Superstructures, *Chem*, **2020**, *6*, 460–471.
38. **Feng, L.**; Li, J.; Day, G. S.; Lv, X.-L.; Zhou, H.-C., Temperature-Controlled Evolution of Nanoporous MOF Crystallites into Hierarchically Porous Superstructures, *Chem*, **2019**, *5*, 1265–1274.
37. **Feng, L.**; Wang, K.-Y.; Lv, X.-L.; Yan, T.-H.; Li, J.-R.; Zhou, H.-C., Modular Total Synthesis in Reticular Chemistry, *J. Am. Chem. Soc.* **2020**, *142* (6), 3069-3076.
36. **Feng, L.**; Wang, K.; Lv, X.-L.; Powell, J.; Yan, T.; Willman, J.; Zhou, H.-C., Imprinted Apportionment of Functional Groups in Multivariate Metal-Organic Frameworks, *J. Am. Chem. Soc.* **2019**, *141*, 37, 14524-14529.
35. **Feng, L.**; Lv, X.-L.; Yan, T.-H.; Zhou, H.-C., Modular Programming of Hierarchy and Diversity in Multivariate Polymer/Metal–Organic Framework Hybrid Composites, *J. Am. Chem. Soc.* **2019**, *141* (26), 10342-10349.

34. **Feng, L.**; Yuan, S.; Zhang, L.-L.; Tan, K.; Li, J.-L.; Kirchon, A.; Liu, L.-M., Zhang, P.; Han, Y.; Chabal, Y. J.; Zhou, H.-C., Creating Hierarchical Pores by Controlled Linker Thermolysis in Multivariate Metal-Organic Frameworks, *J. Am. Chem. Soc.* **2018**, *140* (6), 2363-2372.
33. Wang, Y.[‡]; **Feng, L.[‡]**; Fan, W.; Wang, K.; Wang, X.; Wang, X.; Zhang, K.; Zhang, X.; Dai, F.; Sun, D.; Zhou, H.-C., Topology Exploration in Highly Connected Rare-Earth Metal–Organic Frameworks via Continuous Hindrance Control, *J. Am. Chem. Soc.* **2019**, *141*, 17, 6967-6975 (**Back Cover**).
32. **Feng, L.**; Pang, J.; She, P.; Li, J.; Qin, J.-S.; Du, D.-Y.; Zhou, H.-C., Metal-Organic Frameworks based on Group 3 & 4 Metals, *Adv. Mater.* **2020**, *32*, 2004414 (**Front Cover**).
31. **Feng, L.[‡]**; Lo, S.-H.[‡]; Tan, K.; Li, B.-H.; Yuan, S.; Lin, Y.-F.; Lin, C.-H., Wang S.-L., Lu, K.-L., Zhou, H.-C., An Encapsulation-Rearrangement Strategy to Integrate Superhydrophobicity into Mesoporous Metal-Organic Frameworks, *Matter*, **2020**, *2*, 988-999.
30. **Feng, L.[‡]**; Wang, K.-Y.[‡]; Powell, J.; Zhou, H.-C., Controllable Synthesis of Metal-Organic Frameworks and Their Hierarchical Assemblies, *Matter*, **2019**, *1*, 801-824 (Rank 1 of most read articles in Oct. 2019).
29. **Feng, L.**; Yuan, S.; Qin, J.-S.; Wang, Y.; Kirchon, A.; Qiu, D.; Cheng, L.; Madrahimov, S.; Zhou, H.-C., Lattice Expansion and Contraction in Metal-Organic Frameworks by Sequential Linker Reinstallation, *Matter*, **2019**, *1*, 156-167 (Previewed by *Matter*, **2019**, *1*, 17–38).
28. **Feng, L.**; Yuan, S.; Li, J.-L.; Wang, K.-Y.; Day, G.; Zhang, P.; Wang, Y.; Zhou, H.-C., Uncovering Two Principles of Multivariate Hierarchical Metal-Organic Framework Synthesis via Retrosynthetic Design, *ACS Cent. Sci.* **2018**, *4*, 12, 1719-1726 (**Front Cover**, Rank 6 of most downloaded articles in Dec. 2018).
27. **Feng, L.[‡]**; Wang, K.-Y.[‡]; Willman, J.; Zhou, H.-C., Hierarchy in Metal–Organic Frameworks, *ACS Cent. Sci.* **2020**, *6*, 3, 359-367.
26. **Feng, L.[‡]**; Wang, Y.[‡]; Zhang, K.; Wang, K.-Y.; Fan, W.; Wang, X.; Powell, J. A.; Guo, B.; Dai, F.; Zhang, L.; Wang, R.; Sun, D.; Zhou, H.-C., Molecular Pivot-Hinge Installation to Evolve Topology in Rare-Earth Metal–Organic Frameworks, *Angew. Chem. Int. Ed.*, **2019**, *58*, 16682-16691 (Selected as *Very Important Paper VIP*, Top 5%, highlighted by *ChemistryViews*).
25. Lv, X.-L.[‡]; **Feng, L.[‡]**; Wang, K.-Y.; Xie, L.-H.; He, T.; Wu, W.; Li, J.-R.; Zhou, H.-C., A Series of Mesoporous Rare-Earth Metal-Organic Frameworks Constructed from Organic Secondary Building Units, *Angew. Chem. Int. Ed.* In press.
24. Zhang, L.[‡]; Yuan, S.[‡]; **Feng, L.[‡]**; Guo, B.; Qin, J.-S.; Xu, B.; Lollar, C.; Sun, D.; Zhou, H.-C., Pore-Environment Engineering with Multiple Metal Sites in Rare-Earth Porphyrinic Metal-Organic Frameworks, *Angew. Chem. Int. Ed.*, **2018**, *57* (18), 5095-5099.
23. **Feng, L.**; Wang, K.-Y.; Yan, T.-H.; Zhou, H.-C., Seed-Mediated Evolution of Hierarchical Metal–Organic Framework Quaternary Superstructures, *Chem. Sci.* **2020**, *11*, 1643-1648.
22. **Feng, L.[‡]**; Wang, Y.[‡]; Yuan, S.; Wang, K.; Li, J.; Day, G. S.; Qiu, D.; Cheng, L.; Chen, W.; Madrahimov, S.; Zhou, H.-C., Porphyrinic Metal-Organic Frameworks Installed with Brønsted Acid Sites for Efficient Tandem Semisynthesis of Artemisinin, *ACS Catal.* **2019**, *9* (6), 5111-5118 (**Back Cover**).
21. **Feng, L.**; Wang, K.-Y.; Lv, X.-L.; Yan, T.-H.; Zhou, H.-C., Hierarchically Porous Metal–Organic Frameworks: Synthetic Strategies and Applications, *Nat. Sci. Rev.* **2020**, *7*, 1743-1758 (highlighted by EurekaAlert!).

20. **Feng, L.**[‡]; Wang, K.-Y.[‡]; Joseph, E.; Zhou, H.-C., Catalytic Porphyrin Framework Compounds, *Trends Chem.*, **2020**, 2, 6, 555-568 (**Front Cover**).
19. Wang, Y.[‡]; **Feng, L.**[‡]; Zhang, K.; Wang, K.-Y.; Fan, W.; Wang, X.; Powell, J. A.; Guo, B.; Dai, F.; Zhang, L.; Wang, R.; Sun, D.; Zhou, H.-C., Uncovering Structural Opportunities for Zirconium Metal–Organic Frameworks via Linker Desymmetrization, *Adv. Sci.* **2019**, 1901855 (**Inside Back Cover**).
18. Wang, Y.[‡]; **Feng, L.**[‡]; Pang, J.; Li, J.; Huang, N.; Day, G. S.; Cheng, L.; Drake, H. F.; Wang, Y.; Lollar, C.; Qin, J.; Gu, Z.; Lu, T.; Yuan, S.; Zhou, H.-C., Photosensitizer-Anchored 2D MOF Nanosheets as Highly Stable and Accessible Catalysts toward Artemisinin Production, *Adv. Sci.*, **2019**, 6, 1802059 (**Inside Front Cover**).
17. **Feng, L.**; Chen, W.-M., Li, J.; Day, G.; Drake, H.; Joseph, E.; Zhou, H.-C., Biological Antagonism Inspired Detoxification: Removal of Toxic Elements by Porous Polymer Networks, *ACS Appl. Mater. Interfaces*, **2019**, 11, 15, 14383-14390.
16. Wang, K.-Y.; **Feng, L.**; Yan, T.-H.; Wu, S.-X.; Joseph, E.; Zhou, H.-C., Rapid Generation of Hierarchically Porous Metal–Organic Frameworks through Laser Photolysis, *Angew. Chem. Int. Ed.* **2020**, 59, 11349-11354.
15. Yuan, S.; **Feng, L.**; Wang, K.; Pang, J.; Bosch, M.; Lollar, C.; Sun, Y.; Qin, J.; Yang, X.; Zhang, P.; Wang, Q.; Zou, L.; Zhang, Y.; Zhang, L.; Fang, Y.; Li, J.; Zhou, H.-C., Stable Metal–Organic Frameworks: Design, Synthesis, and Applications, *Adv. Mater.* **2018**, 1704303 (Back Cover, Rank 6 of most accessed articles in January–September 2018: Full Text Access 5414).
14. Xu, M.; **Feng, L.**; Yan, L.; Meng, S.; Yuan, S.; He, M.; Liang, H.; Chen, X.; Wei, H.; Gu, Z.; Zhou, H.-C., Discovery of Precise pH-Controlled Biomimetic Catalysts: Defective Zirconium Metal–Organic Frameworks as Alkaline Phosphatase Mimics, *Nanoscale*, **2019**, 11, 11270-11278.
13. Chen, Z., **Feng, L.**, Liu, L., Bhatt, P.M., Adil, K., Emwas, A.H., Assen, A.H., Belmabkhout, Y., Han, Y. and Eddaoudi, M., Enhanced Separation of Butane Isomers via Defect Control in a Fumarate/Zirconium-Based Metal Organic Framework, *Langmuir*, **2018**, 34 (48), 14546–14551.
12. Jensen, S.; Tan, K.; **Feng, L.**; Li, J.; Zhou, H.-C.; Thonhauser, T., Porous Ti-MOF-74 Framework as a Strong-Binding Nitric Oxide Scavenger, *J. Am. Chem. Soc.* **2020**, 142, 39, 16562–16568.
11. Huang, Q.-; Liu, J.; **Feng, L.**; Wang, Q.; Guan, W.; Dong, L.-Z.; Zhang, L.; Yan, L.K.; Lan, Y.-Q.; Zhou, H.-C., Multielectron Transportation of Polyoxometalate Grafted Metalloporphyrin Coordination Frameworks for Selective CO₂-to-CH₄ Photoconversion, *Nat. Sci. Rev.* **2020**, 7, 1, 53–63.
10. Tan, K.; Jensen, S.; **Feng, L.**; Wang, H.; Yuan, S.; Ferreri, M.; Klesko, J.; Zhou, H.-C.; Thonhauser, T.; Chabal, Y.; Reactivity of Atomic Layer Deposition Precursors with OH/H₂O-containing Metal Organic Framework Materials, *Chem. Mater.*, **2019**, 31 (7), 2286-2295.
9. Jiang, Y.; Park, J.; Tan, P.; **Feng, L.**; Liu, X.; Sun, L.; Zhou, H.-C., Maximizing Photoresponsive Efficiency by Isolating Metal–Organic Polyhedra into Confined Nanoscaled Spaces, *J. Am. Chem. Soc.* **2019**, 141 (20), 8221-8227 (**Back Cover**).
8. Fan, W.; Yuan, S.; Wang, W.; **Feng, L.**; Liu, X.; Zhang, X.; Wang, X.; Kang, Z.; Dai, F.; Yuan, D.; Sun, D.-F.; Zhou, H.-C., Optimizing Multivariate Metal–Organic Frameworks for Efficient C₂H₂/CO₂ Separation, *J. Am. Chem. Soc.*, **2020**, 142, 19, 8728–8737 (**Back Cover**).
7. Yuan, S.; Huang, L.; Huang, Z.; Sun, D.; Qin, J.-S.; **Feng, L.**; Li, J.; Zou, X.; Cagin, T.; Zhou, H.-C., Zhou, H.-C., Continuous Variation of Lattice Dimensions and Pore Sizes in Metal–Organic Frameworks, *J. Am. Chem. Soc.*, **2020**, 142, 10, 4732-4738.

6. Tan, K.; Jensen, S.; Wang, H.; **Feng, L.**; Wei, K.; Zhou, H.-C.; Li, J.; Thonhauser, T.; Thermally activated adsorption in metal-organic frameworks with a temperature-tunable diffusion barrier layer, *Angew. Chem. Int. Ed.* **2020**, *59*, 18468-18472.
5. Cure, J., Mattson, E., Kévin, C., Assi, H., Jensen, S., Tan, K., Catalano, M., Yuan, S., Wang, H., **Feng, L.**, Zhang, P., Kwon, S., Veyan, J.-F., Cabrera, Y.; Zhang, G.; Li, J., Kim, M., Zhou, H.-C., Chabal Y. and Thonhauser T., High Stability of Ultra-small and Isolated Gold Nanoparticles in Metal-Organic Framework Materials, *J. Mater. Chem. A*, **2019**, *7*, 17536-17546.
4. Elumalai, P., Mamlouk, H., Yiming, W., **Feng, L.**, Yuan, S., Zhou, H. C., & Madrahimov, S., Recyclable and Reusable Heteroleptic Nickel Catalyst Immobilized on Metal-Organic Framework for Suzuki-Miyaura Coupling, *ACS Appl. Mater. Interfaces*, **2018**, *10* (48), 41431–41438.
3. Yuan, S.; Zhang, P.; Zhang, L.; Garcia-Esparza, A. T.; Sokaras, D.; Qin, J.-S.; **Feng, L.**; Day, G. S.; Chen, W.; Drake, H. F.; Elumalai, P.; Madrahimov, S. T.; Sun, D.; Zhou, H.-C., Exposed Equatorial Positions of Metal Centers via Sequential Ligand Elimination and Installation in MOFs, *J. Am. Chem. Soc.* **2018**, *140* (34), 10814-10819.
2. Yuan, S.; Qin, J.-S.; Li, J.; Huang, L.; **Feng, L.**; Fang, Y.; Lollar, C.; Pang, J.; Zhang, L.; Sun, D.; Alsalme, A.; Cagin, T.; Zhou, H.-C., Retrosynthesis of Multi-Component Metal-Organic Frameworks, *Nat. Commun.* **2018**, *9*, 808.
1. Yuan, S.; Zou, L.; Qin, J.-S.; Li, J.; **Feng, L.**; Wang, X.; Bosch, M.; Alsalme, A.; Cagin, T.; Zhou, H.-C. Construction of Hierarchically Porous Metal–Organic Frameworks through Linker Labilization, *Nat. Commun.* **2017**, *8*, 15356.