

LIANG FENG

www.liangfengchem.com | lfengmse@gmail.com | (979) 402-5607
140 Science Dr, Durham, NC 27708, United States

Research Interests: Energy | Climate | Carbon Capture | Hydrogen Storage | Adsorption & Separation | Electrochemistry | Polymer Science & Engineering | Automated Materials Discovery | Sustainable Catalysis


PROFESSIONAL EXPERIENCE

Assistant Professor, Duke University Sept. 2023–
Thomas Lord Department of Mechanical Engineering & Materials Science

Postdoctoral Fellow, Northwestern University Sept. 2020–Aug. 2023
Advisor: Prof. Fraser Stoddart (2016 Nobel Laureate) Foresight Fellow

- Discovered active adsorption: storing energy in non-equilibrium materials through mechanisorption

EDUCATION AND RESEARCH EXPERIENCE

Texas A&M University Sept. 2016–Aug. 2020
Advisor: Prof. Hong-Cai Joe Zhou  **Ph.D.** in Chemistry

- Engineering pores in metal-organic frameworks (MOFs) & polymers for gas storage & separation
- Constructed porphyrinic MOF catalysts for photocatalysis, drug production, and CO₂ conversion
- Utilized chemical, thermal, photolytic, and mechanical ways to engineer materials for gas storage

King Abdullah University of Science and Technology Feb. 2016–Jun. 2016
Advisor: Prof. Mohamed Eddaoudi Visiting Student

University of California, Los Angeles Jul. 2015–Sept. 2015
Advisor: Prof. Louis Bouchard Visiting Student

Wuhan University Sept. 2012–Jun. 2016
Advisor: Prof. Hexiang Deng  **B.S.** in Chemistry

HONORS AND AWARDS

Forbes 30 Under 30 in Science	2022
Innovators Under 35 of China <i>MIT Technology Review</i>	2022
MRS Postdoctoral Award <i>Materials Research Society</i>	2022
Rising Star in Soft and Biological Matter <i>UChicago MRSEC</i>	2022
Dream Chemistry Award Top 5	2022
12 Under 12 Young Alumni Spotlight <i>Association of Former Students, Texas A&M University</i>	2022
Delegate to the 71st Lindau Nobel Laureate Meeting	2022
IAS Award for Excellence in Publications by a Young Member <i>International Adsorption Society</i>	2022
CAS Future Leaders <i>ACS Division of Chemical Abstracts Service</i>	2022
MRS Bulletin Postdoctoral Publication Prize	2022
Younger Chemist Leadership Development Award <i>ACS Younger Chemists Committee</i>	2022
16 th International Symposium of Macrocyclic & Supramolecular Chemistry Poster Winner <i>RSC</i>	2022
Winner for 2022 #RSCPoster Twitter Conference <i>Royal Society of Chemistry</i>	2022
Researcher Development Grant <i>Royal Society of Chemistry</i>	2022
Postdoc of the Month December <i>Northwestern University Postdoctoral Association</i>	2021
PMSE Future Faculty Scholar <i>ACS Division of Polymeric Materials: Science and Engineering</i>	2021
World Laureates Forum Young Investigator <i>World Laureates Association</i>	2021
Foresight Fellowship in Molecular Machines	2021
Mark Reed Young Researcher Award <i>Nanotechnology</i>	2021
Victor K. LaMer Award Finalist <i>ACS Division of Colloid & Surface Chemistry</i>	2021
Rowland Fellowship Finalist <i>Rowland Institute at Harvard</i>	2021
Texas A&M Distinguished Dissertation Award Runner-Up	2021
Young Chemist Award Runner-Up <i>Metrohm USA</i>	2021

Distinguished Student Award in Nanotechnology <i>Foresight Institute</i>	2020
Graduate Student Award <i>Materials Research Society</i>	2020
Reaxys PhD Prize Finalist <i>Elsevier</i>	2020
AFS Distinguished Graduate Student Award for Excellence in Research <i>Texas A&M University</i>	2020
Dow Chemical Company Charlene Black Miller '79 Endowed Memorial Fellowship in Chemistry	2020
CSC Award for Outstanding Self-Financed Students Abroad	2020
Science as Art Finalist <i>Materials Research Society</i>	2020
Travel Grants for PhD Students and Early Career Scientists <i>RSC Materials Chemistry Division</i>	2020
Student Travel Award <i>ACS Division of Inorganic Chemistry</i>	2019
Derek & Christiane Barton Graduate Endowed Fellowship <i>Texas A&M University</i>	2019
JEMS Scholarship for Collaborative Research in Chemistry <i>Texas A&M University</i>	2019
Martin Corera Memorial Graduate Student Travel Award in Chemistry <i>Texas A&M University</i>	2019
OGAPS Graduate Student Research and Presentation Travel Award <i>Texas A&M University</i>	2019
Visiting Student Research Program (VSRP) Research Scholarship <i>KAUST</i>	2016
Cross-disciplinary Scholars in Science & Technology (CSST) Fellowship <i>UCLA</i>	2015
Gold Award <i>Wiley Online Library Best Paper Writing Contest</i>	2015
National Endeavor Scholarship <i>Ministry of Education, China</i>	2014 2015

TEACHING AND MENTORING

Participant, The Inclusive STEM Teaching Project	March 2022–May 2022
Teaching Assistant	Sept. 2017–May 2018
<i>General Chemistry for Engineering Students Laboratory (CHEM 117), Texas A&M University</i>	
Research Mentor	
<ul style="list-style-type: none"> Co-authored 30 publications with mentees, including 8 first-/co-first authored by mentees on <i>Matter</i> <i>Angew. Chem. Int. Ed.</i> <i>ACS Materials Lett.</i> <i>ACS Cent. Sci.</i> <i>Chem. Soc. Rev.</i> <i>Trends Chem.</i> ... Mentees received multiple awards from RSC, University, and Department due to research excellence 	

ACTIVITIES AND SERVICES

Early Career Network Representative , U.S. Department of Energy, Basic Energy Sciences	2019–2020
Session Chair	
<ul style="list-style-type: none"> Session—<i>Chemistry of Materials</i> 264th ACS National Meeting & Exposition (Chicago)	2022
<ul style="list-style-type: none"> Session—<i>The graduate school experience: What to expect</i> 263rd ACS Meeting (San Diego)	2022
<ul style="list-style-type: none"> Session—<i>Chemistry of Materials</i> 262nd ACS National Meeting & Exposition (Atlanta)	2021
Panelist	
<ul style="list-style-type: none"> Catalysis & Green Chemistry Lindau Nobel Laureate Meeting	2022
<ul style="list-style-type: none"> MIT Technology Review Global Panel	2021
Judge	
<ul style="list-style-type: none"> Northwestern University Undergraduate Research and Arts Exposition	2022
<ul style="list-style-type: none"> Fundamentals of Adsorption 14th International Conference Poster Award	2022
Member of	
<i>International Adsorption Society (2021–Present) Reaxys Prize Club (2020–2021) Foresight Institute Molecular Machine Group (2020–Present) Materials Research Society (2019–Present) Royal Society of Chemistry (2019–Present) American Chemical Society (2018–Present) DOE EFRC Center for Gas Separations (2017–2020)</i>	
Editorial Board for	
<i>Nanotechnology (2022–Present)</i>	
Independent Reviewer for	2017–Present
<i>Matter</i> <i>J. Am. Chem. Soc.</i> <i>Chem. Sci.</i> <i>Chem. Soc. Rev.</i> <i>Coord. Chem. Rev.</i> <i>ACS Appl. Mater. Interfaces</i> <i>Chem. Mater.</i> <i>ACS Materials Lett.</i> <i>Mater. Today Chem.</i> <i>Inorg. Chem.</i> <i>Energy Fuels</i> <i>Sci. Rep.</i> <i>Inorg. Chem. Commun.</i> <i>J. Solid State Chem.</i> <i>Microporous Mesoporous Mater.</i>	


Duke University | Rice University | University of Chicago | Rowland Institute at Harvard | University of Florida | National University of Singapore | Penn State University | Colorado State University | University of Michigan | Purdue University | UChicago MRSEC | Dream Chemistry Award Dream Project | MRS Postdoctoral Award Talk | MRS Graduate Student Award Talk | Lindau Nobel Laureate Meeting Next Generation Science | International Adsorption Conference Award Lecture | ACS POLY/PMSE Future Faculty Symposium | Foresight Institute Nanotech Seminar | ACS COLL LaMer Keynote Talk | ...

PATENT

Stoddart, J. F.; **Feng, L.**; Qiu, Y., Mechanized Metal-Organic Frameworks, Disc-ID-21-09-02-003.

PUBLICATIONS

† denotes equal contribution | * denotes corresponding authorship

(60 peer-reviewed journal publications | 12 publications featured on Journal Covers | h-index 34 | total citations 6,065 | accessed on Mar. 2023  [Google Scholar](#))

(Co-) First-Author / Corresponding-Author Publications (34)

60. **Feng, L.***; Astumian, R. D.*; Stoddart, J. F.*, Controlling Dynamics in Extended Molecular Frameworks, *Nat. Rev. Chem.* **2022**, *6*, 705–725.
59. **Feng, L.†**; Qiu, Y.†; Guo, Q.-H.; Chen, Z.; Seale, J.; He, K.; Wu, H.; Feng, Y.; Farha, O. K.; Astumian, R. D.; Stoddart, J. F., Active Mechanisorption Driven by Pumping Cassettes, *Science* **2021**, *374*, 1215–1221. ([Link](#)) Highlighted by *Science*, *Nat. Chem.*, *Angew. Chem. Int. Ed.*, *C&EN*, *Phys.org*, *Chemistry World*, *Engineering 360*, *X-MOL*, *Northwestern Now*, *NU Chemistry Newsletters*, *UMaine News*, *Science & Technology Daily*, and *Frontiers of Polymer*
58. Lo, S.-H.†; **Feng, L.†**; Tan, K.; Huang, Z.; Yuan, S.; Wang, K.-Y.; 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. ([Link](#)) Highlighted by *SciGlow* and *X-MOL*
57. Wang, K.-Y.; Yang, Z.; Banerjee, S.; Zhang, J.; Hsu, Y.-C.; Joseph, E.; Yuan, S.*; **Feng, L.***; Zhou, H.-C.*, Creating Hierarchical Pores in Metal–Organic Frameworks via Post-Synthetic Reactions, *Nat. Protoc.* **2023**, *18*, 604–625. *Mentee as 1st Author*
56. **Feng, L.**; Wang, K.-Y.; Yan, T.-H.; Zhou, H.-C., Porous Crystalline Spherulite Superstructures, *Chem* **2020**, *6*, 460–471.
55. **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.
54. **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.
53. **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.
52. **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*
51. **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*
50. **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*, 3069–3076.
49. **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*, 14524–14529.
48. **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*, 10342–10349. *Highlighted by DOE Energy Frontier Research Center for Gas Separation*

47. **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*, 2363–2372.
46. Lv, X.-L.[†]; **Feng, L.**[†]; Xie, L.-H.; He, T.; Wu, W.; Wang, K.-Y.; Si, G.; Wang, B.; Li, J.-R.; Zhou, H.-C., Linker Desymmetrization: Access to a Series of Rare-Earth Tetracarboxylate Frameworks with Eight-Connected Hexanuclear Nodes, *J. Am. Chem. Soc.* **2021**, *143*, 2784–2791. [Selected as Back Cover](#)
45. 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*, 6967–6975. [Selected as Back Cover](#)
44. **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*, 1719–1726. [Front Cover](#) | [Rank 6 of Most Downloaded Articles in Dec. 2018](#)
43. **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 Top 5% | Highlighted by ChemistryViews](#)
42. 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.* **2021**, *60*, 2053–2057. [Selected as Hot Paper](#)
41. 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*, 5095–5099.
40. **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*, 5111–5118. [Back Cover](#)
39. Wang, K.-Y.; **Feng, L.**^{*}; Yan, T.-H.; Qin, J.-S.; Li, C.-X.; Zhou, H.-C.^{*}, Morphology Transcription in Hierarchical MOF-on-MOF Architectures, *ACS Materials Lett.* **2021**, *3*, 738–743. [Mentee as 1st Author](#)
38. **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.
37. 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](#)
36. 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. [Front Cover](#)
35. **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*, 14383–14390.
34. Seale, J.; Feng, Y.; **Feng, L.**^{*}; Astumian, R. D.^{*}; Stoddart, J. F.^{*}, Polyrotaxanes and the Pump Paradigm, *Chem. Soc. Rev.* **2022**, *51*, 8450–8475. [Mentee as 1st Author](#)
33. **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.
32. **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.
31. 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.
30. **Feng, L.**[†]; Wang, K.-Y.[†]; Joseph, E.; Zhou, H.-C., Catalytic Porphyrin Framework Compounds, *Trends Chem.* **2020**, *2*, 555–568. [Selected as Front Cover](#)
29. **Feng, L.**; Pang, J.; She, P.; Li, J.; Qin, J.-S.; Du, D.-Y.; Zhou, H.-C., Metal-Organic Frameworks based on Group 3 and 4 Metals, *Adv. Mater.* **2020**, *32*, 2004414. [Selected as Front Cover](#)
28. **Feng, L.**[†]; Wang, K.-Y.[†]; Willman, J.; Zhou, H.-C., Hierarchy in Metal-Organic Frameworks, *ACS Cent. Sci.* **2020**, *6*, 359–367.
27. **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 EurekAlert!](#)

Contributing-Author Publications (26)

26. Li, Y.; Su, J.; Zhao, Y.; **Feng, L.**; Gao, L.; Xu, X.; Yin, Y.; Liu, Y.; Xiao, P.; Yuan, L.; Wang, Y.; Yuan, S.; Zheng, H.; Zuo, J.-L., Dynamic Bond-Directed Synthesis of Stable Mesoporous Metal–Organic Frameworks Under Room Temperature, *J. Am. Chem. Soc.* *under review*.
25. Chen, X.-Y.; Kesharwani, T.; Wu, Y.; Stern, C.; Đorđević, L.; Wu, H.; Wang, Y.; Song, B.; **Feng, L.**; Zhang, L.; Zhao, X.; Jiao, Y.; Li, X.; Han, H.; Tang, C.; Zhang, R.; Chen, H.; Cai, K.; Stupp, S.; Chen, H.; Shen, D.; Stoddart, J. F., Site-Selective C–H Functionalization in a Cyclodextrin Metal–Organic Framework, *Chem* **2023**, *in press*.
24. Chen, W., Wang, Z., Wang, Q., El-Yanbouï, K., Tan, K., Barkholtz, H.M., Liu, D.J., Cai, P., **Feng, L.**, Li, Y., Qin, J.S., Yuan, S., Sun, D., Zhou, H.-C., Monitoring the Activation of Open Metal Sites in $[\text{Fe}_x\text{M}_{3-x}(\mu_3\text{-O})]$ Cluster-Based Metal–Organic Frameworks by Single-Crystal X-ray Diffraction, *J. Am. Chem. Soc.* **2023**, *145*, 4736–4745.
23. Han, H., Seale, J. S. W., **Feng, L.**, Qiu, Y., Stoddart, J. F., Sequence-controlled synthesis of rotaxanes, *J. Polym. Sci.* **2023**, DOI: 10.1002/pol.20220691.
22. Pandey, H.; Wang, H.; **Feng, L.**; Wang, K.-Y.; Zhou, H.-C.; Li, J.; Thonhauser, T.; Tan, K., Revisiting Competitive Adsorption of Small Molecules in the Metal–Organic Framework Ni-MOF-74, *Inorg. Chem.* **2023**, *62*, 950–956.
21. Zhu, C.; Yang, K.; Wang, H.; Fang, Y.; **Feng, L.**; Zhang, J.; Xiao, Z.; Wu, X.; Li, Y.; Fu, Y.; Zhang, W.; Wang, K.-Y.; Zhou, H.-C., Enantioseparation in Hierarchically Porous Assemblies of Homochiral Cages, *ACS Cent. Sci.* **2022**, *8*, 562–570.
20. 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. *Mentee as 1st Author | Highlighted by DOE-EFRC Center for Gas Separation*
19. Chapman, E.; Ullah, S.; Wang, H.; **Feng, L.**; Wang, K.-Y.; Zhou, H.-C.; Li, J.; Thonhauser, T.; Tan, K., Tuning the Adsorption Properties of Metal–Organic Frameworks through Co-adsorbed Ammonia, *ACS Appl. Mater. Interfaces* **2021**, *13*, 43661–43667.
18. Habibollahzadeh, M.; Noh, J.; **Feng, L.**; Zhou, H.-C.; Abdel-Wahab, A.; Yu, C., Enhancing Water Permeability with Super-hydrophilic Metal–Organic Frameworks and Hydrophobic Straight Pores, *Environ. Sci.: Water Res. Technol.* **2021**, *7*, 1137–1145.
17. Chen, F.; Drake, H.; **Feng, L.**; Powell, J.; Wang, K.; Yan, T.; Zhou, H.-C., Metal–Organic Frameworks as Versatile Platforms for Organometallic Chemistry, *Inorganics* **2021**, *9*, 27.
16. Chen, W.; Cai, P.; Elumalai, P.; Zhang, P.; **Feng, L.**; Al-Rawashdeh, M.; Madrahimov, S.; Zhou, H.-C., Site-Isolated Azobenzene-Containing Metal–Organic Framework for Cyclopalladated Catalyzed Suzuki-Miyaura Coupling in Flow, *ACS Appl. Mater. Interfaces* **2021**, *13*, 51849–51854.
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. *Selected as Back Cover | Rank 6 of Most Accessed Articles in January–September 2018: 5414 Full Text Access*
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.; Eddaoudi, M., Enhanced Separation of Butane Isomers via Defect Control in a Fumarate/Zirconium-Based Metal–Organic Framework, *Langmuir* **2018**, *34*, 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*, 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*, 53–63.
10. Tan, K.; Jensen, S.; **Feng, L.**; Wang, H.; Yuan, S.; Ferreri, M.; Klesko, J.; Rahman, R.; Cure, J.; Li, 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*, 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*, 8221–8227. *Selected as 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*, 8728–8737. [Selected as 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., Continuous Variation of Lattice Dimensions and Pore Sizes in Metal-Organic Frameworks, *J. Am. Chem. Soc.* **2020**, *142*, 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. [Selected as Hot Paper](#)
5. Cure, J.; Mattson, E.; Kevin, 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.; 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*, 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*, 10814–10819.
2. Yuan, S.; Qin, J.-S.; Li, J.; Huang, L.; **Feng, L.**; Fang, Y.; Lollar, C.; Pang, J.; Zhang, L.; Sun, D.; Alsalmé, 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.; Alsalmé, A.; Cagin, T.; Zhou, H.-C., Construction of Hierarchically Porous Metal-Organic Frameworks through Linker Labilization, *Nat. Commun.* **2017**, *8*, 15356.