

# Kang Sun

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## Academic Qualifications and Experiences

- **Postdoctoral fellow, University of Science and Technology of China, China**

Jul. 2023-present      Supervisor: Prof. Hai-Long Jiang

- **Ph.D., University of Science and Technology of China, China**

Sep. 2017-Jun. 2023      Supervisor: Prof. Hai-Long Jiang

- **Bachelor of Science, Yunnan University, China**

Sep. 2013-Jul. 2017

## Publications (# represents co-first author)

- **Kang Sun**#, Y. Huang#, F. Sun, Y. Zhou, J. Wang, Q. Zhang, F. Fan, Y. Luo, J. Jiang, H.-L. Jiang, Dynamic structural twist in metal-organic frameworks enhances solar overall water splitting, *Nat. Chem.* 2024, 16, 1638-1646.
- **Kang Sun**, H.-L. Jiang, A dynamic metal-organic framework photocatalyst, *Nat. Chem.* 2024, 16, 1580-1581. (Invited Research Briefing)
- **Kang Sun**#, Y. Huang#, Q. Wang, W. Zhao, X. Zheng, J. Jiang, H.-L. Jiang, Manipulating the Spin State of Co Sites in Metal-Organic Frameworks for Boosting CO<sub>2</sub> Photoreduction, *J. Am. Chem. Soc.* 2024, 146, 3241-3249.
- **Kang Sun**, M. Liu, J. Pei, D. Li, C. Ding, K. Wu, H.-L. Jiang, Incorporating Transition Metal Phosphides into Metal-Organic Frameworks for Enhanced Photocatalysis, *Angew. Chem. Int. Ed.* 2020, 59, 22749-22755.
- **Kang Sun**, Y. Qian, H.-L. Jiang, Metal-Organic Frameworks for Photocatalytic Water Splitting and CO<sub>2</sub> Reduction, *Angew. Chem. Int. Ed.* 2023, 62, e202217565.
- **Kang Sun**#, Y. Qian#, H.-L. Jiang, Reticular Materials for Photocatalysis, *Adv. Mater.* 2025, in press.
- **Kang Sun**, H.-L. Jiang, Robust Metal-Organic Framework Catalysts for Important Reactions of Industrial Interest, *Matter* 2024, 7, 13-15.
- J. Li#, H. Huang#, W. Xue#, **Kang Sun**#, X. Song, C. Wu, L. Nie, Y. Li, C. Liu, Y. Pan, H.-L. Jiang\*, D. Mei, C. Zhong, Self-adaptive dual-metal-site pairs in metal-organic frameworks for selective CO<sub>2</sub> photoreduction to CH<sub>4</sub>. *Nat. Catal.* 2021, 4, 719-729.
- L. Wen#, **Kang Sun**#, X. Liu#, W. Yang, L. Li, H.-L. Jiang, Electronic State and Microenvironment Modulation of Metal Nanoparticles Stabilized by MOFs for Boosting Electrocatalytic Nitrogen Reduction, *Adv. Mater.* 2023, 35, 2210669.
- J. Wang#, **Kang Sun**#, D. Wang, X. Niu, Z. Lin, S. Wang, W. Yang, J. Huang, H.-L. Jiang, Precise Regulation of the Coordination Environment of Single Co(II) Sites in a Metal-Organic Framework for Boosting CO<sub>2</sub> Photoreduction, *ACS Catal.* 2023, 13, 8760-8769.
- Z.-X. Sun, **Kang Sun**, M.-L. Gao, Ö. Metin, H.-L. Jiang, Optimizing Pt Electronic States through Formation of Schottky Junction on Non-reducible Metal-Organic Frameworks for Enhanced Photocatalysis, *Angew. Chem. Int. Ed.* 2022, 61, e202206108.

- S. Suleman, **Kang Sun**, Y. Zhao, X. Guan, Z. Lin, Z. Meng, H.-L. Jiang, Enhanced Photocatalytic CO<sub>2</sub> Reduction via Linkage Substitution in Porphyrinic Covalent Organic Frameworks. *CCS Chem.* 2024, 6, 1689-1697.
- M. Xu, D. Li, **Kang Sun**, L. Jiao, C. Xie, C. Ding, H.-L. Jiang, Interfacial Microenvironment Modulation Boosting Electron Transfer between Metal Nanoparticles and MOFs for Enhanced Photocatalysis, *Angew. Chem. Int. Ed.* 2021, 60, 16372-16376.
- Q. Wu, C. Zhang, **Kang Sun**, H.-L. Jiang, Microwave-Assisted Synthesis and Photocatalytic Performance of a Soluble Porphyrinic MOF, *Acta Chim. Sinica* 2020, 78, 688-694.

## Awards

- **China Innovation Postdoctoral Program for Innovative Talents**, in the year of 2023 (the most prestigious award for postdoctoral researchers in China).
- First-class Outstanding Youth Award of Mozi of USTC, in the year of 2025
- Xiaomi Young Scholars from Xiaomi Foundation, in the year of 2023.
- National Scholarship for Doctoral Students, in the year of 2020.
- National Scholarship for Bachelor Students, in the year of 2016.
- Yunnan Provincial Government Scholarship, in the year of 2015.
- Yunnan Provincial Award for Merit Student, in the year of 2015.
- Anhui Provincial Outstanding Graduates, in the year of 2022.