**MOF/COF (2022-2024)**

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1. **Accelerating Oxygen Electrocatalysis Kinetics on Metal–Organic Frameworks via Bond Length Optimization (Article)**

Fan He, Yingnan Liu, Xiaoxuan Yang, Yaqi Chen, Cheng-Chieh Yang, Chung-Li Dong, Qinggang He, Bin Yang, Zhongjian Li, Yongbo Kuang, Lecheng Lei, Liming Dai & Yang Hou

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1. **Multifunctional MOF@COF Nanoparticles Mediated Perovskite Films Management Toward Sustainable Perovskite Solar Cells (Article)**

Yayu Dong, Jian Zhang, Hongyu Zhang, Wei Wang, Boyuan Hu, Debin Xia, Kaifeng Lin, Lin Geng & Yulin Yang

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1. **Hollow Metal–Organic Framework/MXene/Nanocellulose Composite Films for Giga/Terahertz Electromagnetic Shielding and Photothermal Conversion (Article)**

Tian Mai, Lei Chen, Pei-Lin Wang, Qi Liu & Ming-Guo Ma

Nano-Micro Lett. 16, 169 (2024). <https://doi.org/10.1007/s40820-024-01386-5>

1. **Challenges and Opportunities in Preserving Key Structural Features of 3D-Printed Metal/Covalent Organic Framework (Review)**

Ximeng Liu, Dan Zhao & John Wang

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1. **All-Covalent Organic Framework Nanofilms Assembled Lithium-Ion Capacitor to Solve the Imbalanced Charge Storage Kinetics (Article)**

Xiaoyang Xu, Jia Zhang, Zihao Zhang, Guandan Lu, Wei Cao, Ning Wang, Yunmeng Xia, Qingliang Feng & Shanlin Qiao

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1. **Laser-Induced and MOF-Derived Metal Oxide/Carbon Composite for Synergistically Improved Ethanol Sensing at Room temperature (Article)**

Hyeongtae Lim, Hyeokjin Kwon, Hongki Kang, Jae Eun Jang & Hyuk-Jun Kwon

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1. **Advances of Electrochemical and Electrochemiluminescent Sensors Based on Covalent Organic Frameworks (Review)**

Yue Cao, Ru Wu, Yan-Yan Gao, Yang Zhou & Jun-Jie Zhu

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1. **Biocatalytic Buoyancy-Driven Nanobots for Autonomous Cell Recognition and Enrichment (Article)**

Ziyi Guo, Chenchen Zhuang, Yihang Song, Joel Yong, Yi Li, Zhong Guo, Biao Kong, John M. Whitelock, Joseph Wang & Kang Liang

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1. **Recent Advances in Multifunctional Reticular Framework Nanoparticles: A Paradigm Shift in Materials Science Road to a Structured Future (Review)**

Maryam Chafiq, Abdelkarim Chaouiki & Young Gun Ko

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1. **Quasi-Three-Dimensional Cyclotriphosphazene-Based Covalent Organic Framework Nanosheet for Efficient Oxygen Reduction (Article)**

Jianhong Chang, Cuiyan Li, Xiaoxia Wang, Daohao Li, Jie Zhang, Xiaoming Yu, Hui Li, Xiangdong Yao, Valentin Valtchev, Shilun Qiu & Qianrong Fang

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1. **Engineering Spin States of Isolated Copper Species in a Metal–Organic Framework Improves Urea Electrosynthesis (Article)**

Yuhang Gao, Jingnan Wang, Yijun Yang, Jian Wang, Chuang Zhang, Xi Wang & Jiannian Yao

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1. **Outstanding Humidity Chemiresistors Based on Imine-Linked Covalent Organic Framework Films for Human Respiration Monitoring (Article)**

Xiyu Chen, Lingwei Kong, Jaafar Abdul-Aziz Mehrez, Chao Fan, Wenjing Quan, Yongwei Zhang, Min Zeng, Jianhua Yang, Nantao Hu, Yanjie Su, Hao Wei & Zhi Yang

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1. **Fundamental Perspectives on the Electrochemical Water Applications of Metal–Organic Frameworks (Review)**

Xiang He

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1. **Engineer Nanoscale Defects into Selective Channels: MOF-Enhanced Li+ Separation by Porous Layered Double Hydroxide Membrane (Article)**

Yahua Lu, Rongkun Zhou, Naixin Wang, Yuye Yang, Zilong Zheng, Miao Zhang, Quan-Fu An & Jiayin Yuan

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1. **Metal-Free 2D/2D van der Waals Heterojunction Based on Covalent Organic Frameworks for Highly Efficient Solar Energy Catalysis (Article)**

Ge Yan, Xiaodong Sun, Yu Zhang, Hui Li, Hongwei Huang, Baohua Jia, Dawei Su & Tianyi Ma Nano-Micro Lett. 15, 132 (2023). [https://doi.org/10.1007/s40820-023-01100-x](%20https:/doi.org/10.1007/s40820-023-01100-x)

1. **Applications of Metal–Organic Frameworks and Their Derivatives in Electrochemical CO2 Reduction (Review)**

Chengbo Li, Yuan Ji, Youpeng Wang, Chunxiao Liu, Zhaoyang Chen, Jialin Tang, Yawei Hong, Xu Li, Tingting Zheng, Qiu Jiang & Chuan Xia

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1. **A Rational Design of Metal–Organic Framework Nanozyme with High-Performance Copper Active Centers for Alleviating Chemical Corneal Burns (Article)**

Yonghua Tang, Yi Han, Jiachen Zhao, Yufei Lv, Chaoyu Fan, Lan Zheng, Zhisen Zhang, Zuguo Liu, Cheng Li & Youhui Lin

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1. **Identification of Dynamic Active Sites Among Cu Species Derived from MOFs@CuPc for Electrocatalytic Nitrate Reduction Reaction to Ammonia (Article)**

Xue-Yang Ji, Ke Sun, Zhi-Kun Liu, Xinghui Liu, Weikang Dong, Xintao Zuo, Ruiwen Shao & Jun Tao

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1. **Engineering HOF-Based Mixed-Matrix Membranes for Efficient CO2 Separation (Article)**

Yuhan Wang, Yanxiong Ren, Yu Cao, Xu Liang, Guangwei He, Hanze Ma, Hongliang Dong, Xiao Fang, Fusheng Pan & Zhongyi Jiang

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1. **Bending Resistance Covalent Organic Framework Superlattice: “Nano-Hourglass”-Induced Charge Accumulation for Flexible In-Plane Micro-Supercapacitors (Article)**

Xiaoyang Xu, Zhenni Zhang, Rui Xiong, Guandan Lu, Jia Zhang, Wang Ning, Shuozhen Hu, Qingliang Feng & Shanlin Qiao

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1. **Metal–Organic Frameworks Functionalized Separators for Robust Aqueous Zinc-Ion Batteries (Article)**

Yang Song, Pengchao Ruan, Caiwang Mao, Yuxin Chang, Ling Wang, Lei Dai, Peng Zhou, Bingan Lu, Jiang Zhou & Zhangxing He

Nano-Micro Lett. 14, 218 (2022). <https://doi.org/10.1007/s40820-022-00960-z>

1. **Aqueous Two-Phase Interfacial Assembly of COF Membranes for Water Desalination (Article)**

Hongjian Wang, Jiashuai Zhao, Yang Li, Yu Cao, Ziting Zhu, Meidi Wang, Runnan Zhang, Fusheng Pan & Zhongyi Jiang

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1. **Metal–Organic Framework Materials for Electrochemical Supercapacitors (Review)**

Ziwei Cao, Roya Momen, Shusheng Tao, Dengyi Xiong, Zirui Song, Xuhuan Xiao, Wentao Deng, Hongshuai Hou, Sedat Yasar, Sedar Altin, Faith Bulut, Guoqiang Zou

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1. **MOF-Like 3D Graphene-Based Catalytic Membrane Fabricated by One-Step Laser Scribing for Robust Water Purification and Green Energy Production (Article)**

Xinyu Huang, Liheng Li, Shuaifei Zhao, Lei Tong, Zheng Li, Zhuiri Peng, Runfeng Lin, Li Zhou, Chang Peng, Kan-Hao Xue, Lijuan Chen, Gary J. Cheng, Zhu Xiong & Lei Ye

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1. **MOF-Transformed In2O3-x@C Nanocorn Electrocatalyst for Efficient CO2 Reduction to HCOOH (Article)**

Chen Qiu, Kun Qian, Jun Yu, Mingzi Sun, Shoufu Cao, Jinqiang Gao, Rongxing Yu, Lingzhe Fang, Youwei Yao, Xiaoqing Lu, Tao Li, Bolong Huang & Shihe Yang

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1. **MOF-Derived Co and Fe Species Loaded on N-Doped Carbon Networks as Efficient Oxygen Electrocatalysts for Zn-Air Batteries (Article)**

Yuanyuan Xue, Yibo Guo, Qinming Zhang, Zhaojun Xie, Jinping Wei & Zhen Zhou

Nano-Micro Lett. 14, 162 (2022). <https://doi.org/10.1007/s40820-022-00890-w>

1. **Ultralight Magnetic and Dielectric Aerogels Achieved by Metal–Organic Framework Initiated Gelation of Graphene Oxide for Enhanced Microwave Absorption (Article)**

Xiaogu Huang, Jiawen Wei, Yunke Zhang, BinBin Qian, Qi Jia, Jun Liu, Xiaojia Zhao & Gaofeng Shao

Nano-Micro Lett. 14, 107 (2022). <https://doi.org/10.1007/s40820-022-00851-3>

1. **State of the Art and Prospects in Metal-Organic Framework-Derived Microwave Absorption Materials (Review)**

Shuning Ren, Haojie Yu, Li Wang, Zhikun Huang, Tengfei Lin, Yudi Huang, Jian Yang, Yichuan Hong & Jinyi Liu

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