

# CrystEngComm

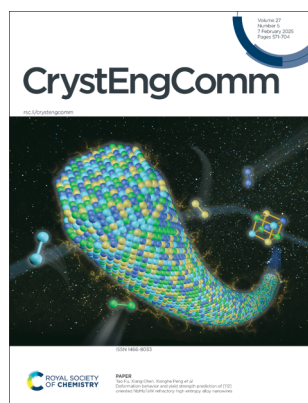
A journal at the forefront of the design and understanding of solid-state and crystalline materials

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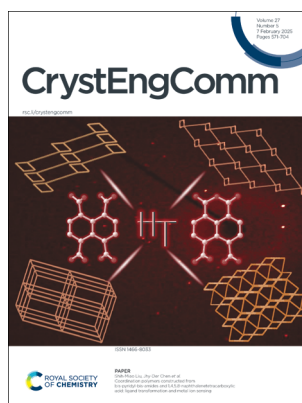
## IN THIS ISSUE

ISSN 1466-8033 CODEN CRECF4 27(5) 571-704 (2025)



### Cover

See Tao Fu, Xiang Chen, Xianghe Peng *et al.*, pp. 596–605.  
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### Inside cover

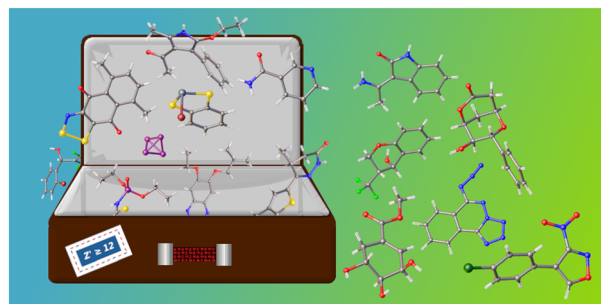
See Jhy-Der Chen *et al.*, pp. 606–615.  
Image reproduced by permission of y-Der Chen from *CrystEngComm*, 2025, 27, 606.

## HIGHLIGHT

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### A lot to unpack: a decade in high $Z'$ crystal structures

Paul G. Waddell\*

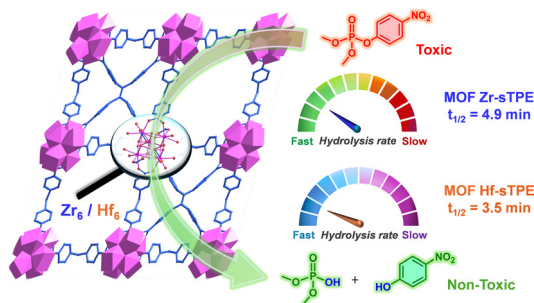


## COMMUNICATION

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### Fast degradation of a nerve agent simulant catalyzed by two isorecticular 6-connected $Zr_6$ and $Hf_6$ cluster based metal-organic frameworks

Yun Chen, Li Fan, Haibo Wang, Anqiu Ma, Chenxin Jiang, Qiu-Yan Li,\* Xinsheng Zhao, Yong-Chao Zheng,\* Yuan Ma\* and Xiao-Jun Wang\*



# ChemComm

**Uncover new possibilities  
with outstanding  
preliminary research**

**Original discoveries, fuelling  
every step of scientific progress**

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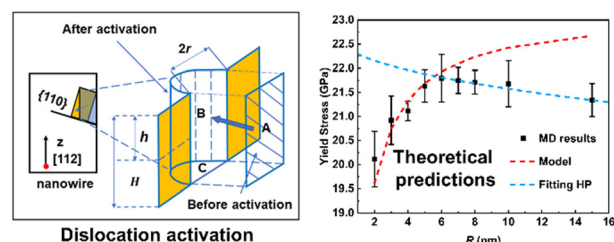
**Fundamental questions  
Elemental answers**



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## Deformation behavior and yield strength prediction of [112] oriented NbMoTaW refractory high entropy alloy nanowires

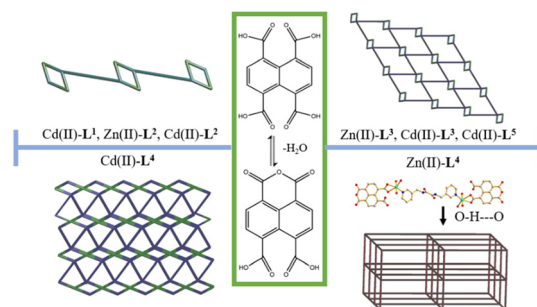
Taozhi Tian, Tao Fu,\* Mengye Duan, Hao Hu, Chuanying Li, Xiang Chen\* and Xianghe Peng\*



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## Coordination polymers constructed from bis-pyridyl-bis-amides and 1,4,5,8-naphthalenetetracarboxylic acid: ligand transformation and metal ion sensing

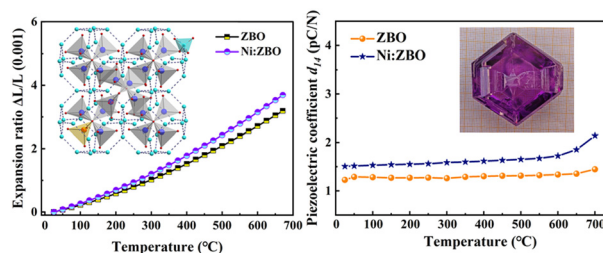
Wei-Hao Chen, Yen-Hsin Chen, Kedar Bahadur Thapa, Shih-Miao Liu\* and Jhy-Der Chen\*



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## Single crystal growth, characterization, piezoelectric properties, and spectral analysis for $\text{Zn}_4\text{B}_6\text{O}_{13}$ and $\text{Ni}:\text{Zn}_4\text{B}_6\text{O}_{13}$ crystals

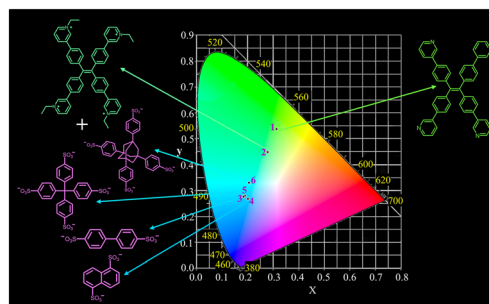
Jipeng Wu, Nianlong Zhang, Hengyuan Zhang, Feifei Chen,\* Li Sun, Xiufeng Cheng and Xian Zhao\*



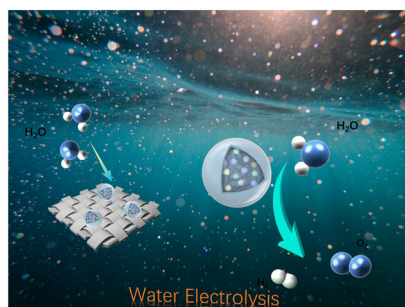
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## Tetraphenylethylene-based blue light-emitting organic salt crystals

Huifen Hu, Yukun Yan, Chengling Yang\* and Wei Wang\*



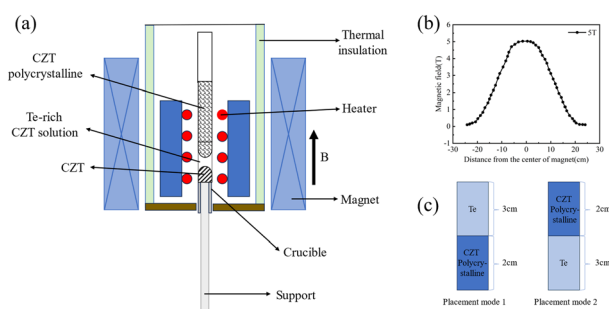
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### Effect of carbon-based carriers on HER performance of NiMo-based polyalloy catalysts

Guixin Zhao, Sixuan Zhang, Jinzhao Huang,\* Zehui Liu, Feng Jiao, Ke Zhang, Yu Zhang and Xiaolong Deng\*

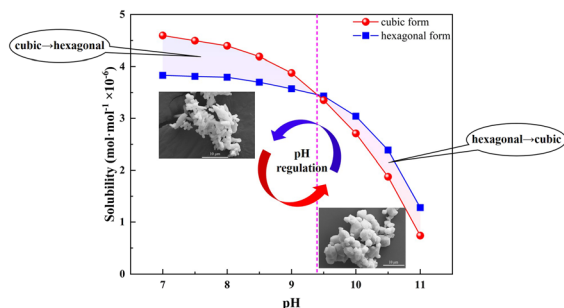
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### Investigation of the diffusion and crystal growth of CdZnTe in Te solution using the traveling heater method under axial static magnetic field

Jijun Zhang,\* Wanping Liu, Jiongjiong Wei, Chen Xie, Yingdong Huang, Kun Liu, Hao Liu, Yongwu Qi, Meng Cao,\* Linjun Wang and Xiaoyan Liang\*

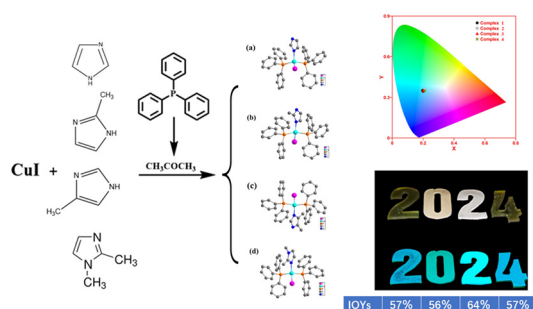
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### Mutual polymorphic transformation of CsMgPO<sub>4</sub>·6H<sub>2</sub>O induced by solution pH

Sheng Lv, Liangcheng Song,\* Hongyan Cui, Yanling Xu, Chongqiang Zhu and Chunhui Yang

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### Achieving cuprous iodide hybrid materials with long luminescence lifetimes and high internal quantum yields via aggregation-induced emission

Zhen-Dong Xue, Yi Zhang, Hao-Yu Zhu, Juan-Juan Shao, Qiang Gao and Fang-Ming Wang\*

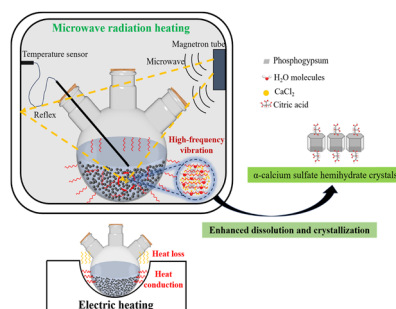


## PAPERS

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# A novel approach for enhanced hydrothermal synthesis of $\alpha$ -calcium sulfate hemihydrate crystals from phosphogypsum by microwave irradiation

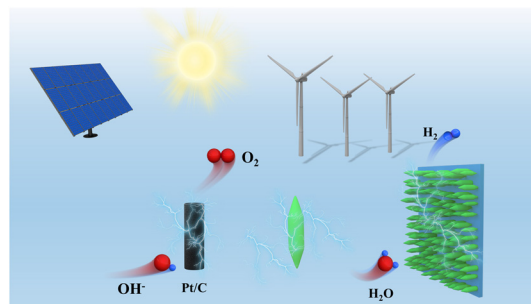
Weifan Du and Xianbo Li\*



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# Ligand defect engineered NH<sub>2</sub>-MIL-88B(Fe) for efficient oxygen evolution reaction in alkaline seawater

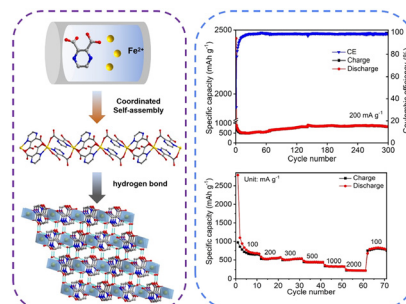
Dongling Xie, Jianan Wang, Bo Huang, Yiyi Yang, Dunmin Lin, Chenggang Xu and Fengyu Xie\*



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# Exploration of a one-dimensional iron-based coordination polymer for enhanced lithium storage capabilities

Jingwei Liu, Xiaolong Cheng, Shifa Dang, Weile Kong, Mengxian Zheng, Lei Zhang, Shuangyan Wu,\* Ning Liu\* and Jinchao Cao\*



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# Microscopic kinetic model of gas hydrate and the effect of brine: a case study of natural gas hydrate from the seabed off the Tokachi coast

Satoshi Takeya,\* Kiyofumi Suzuki, Akihiro Hachikubo, Hirotoishi Sakagami, Hirotsugu Minami, Satoshi Yamashita, Keiichi Hirano, Kazuyuki Hyodo, Masahide Kawamoto and Akio Yoneyama

