

CrystEngComm

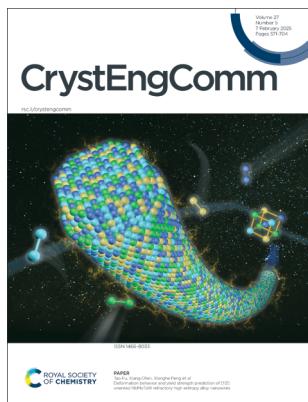
A journal at the forefront of the design and understanding of solid-state and crystalline materials

rsc.li/crystengcomm

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

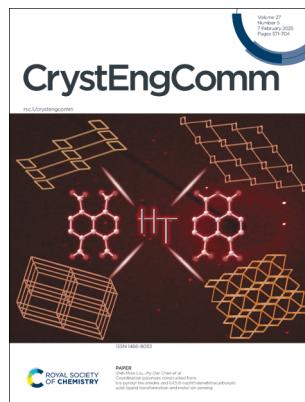
IN THIS ISSUE

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



Cover

See Tao Fu, Xiang Chen, Xianghe Peng et al., pp. 596–605.
Image reproduced by permission of Tao Fu from *CrystEngComm*, 2025, 27, 596.



Inside cover

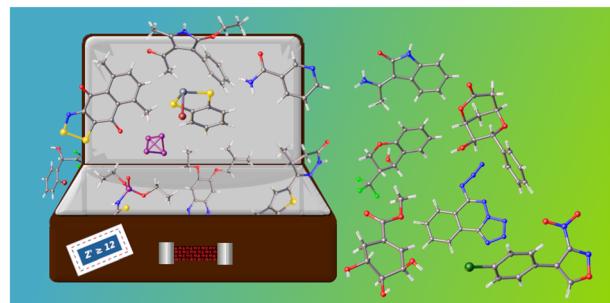
See Jhy-Der Chen et al., pp. 606–615.
Image reproduced by permission of Jhy-Der Chen from *CrystEngComm*, 2025, 27, 606.

HIGHLIGHT

578

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

Paul G. Waddell*

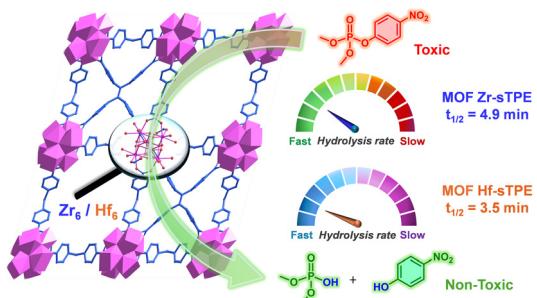


COMMUNICATION

590

Fast degradation of a nerve agent simulant catalyzed by two isoreticular 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**

rsc.li/chemcomm

**Fundamental questions
Elemental answers**

Registered charity number: 207890

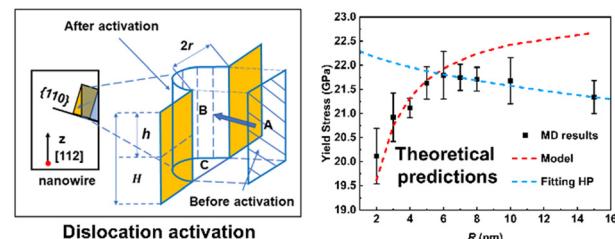


PAPERS

596

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

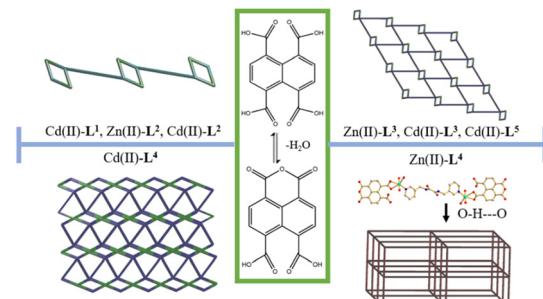
Taozhi Tian, Tao Fu,* Mengye Duan, Hao Hu, Chuanying Li, Xiang Chen* and Xianghe Peng*



606

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

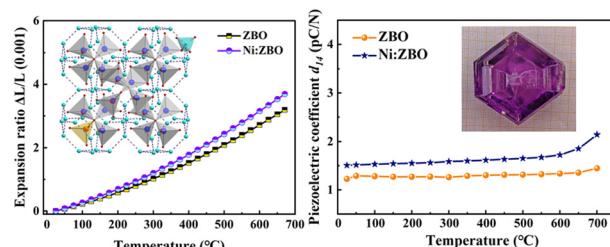
Wei-Hao Chen, Yen-Hsin Chen, Kedar Bahadur Thapa, Shih-Miao Liu* and Jhy-Der Chen*



616

Single crystal growth, characterization, piezoelectric properties, and spectral analysis for $Zn_4B_6O_{13}$ and Ni:Zn₄B₆O₁₃ crystals

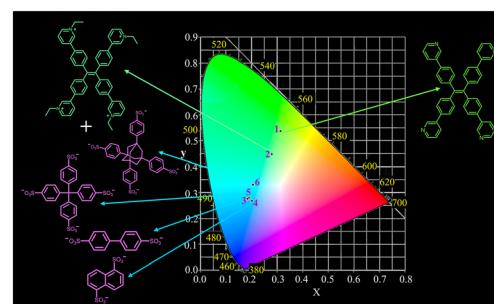
Jipeng Wu, Nianlong Zhang, Hengyuan Zhang, Feifei Chen,* Li Sun, Xiufeng Cheng and Xian Zhao*



625

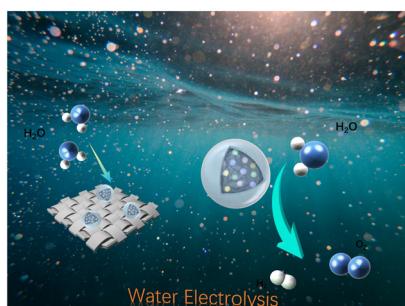
Tetraphenylethylen-based blue light-emitting organic salt crystals

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



PAPERS

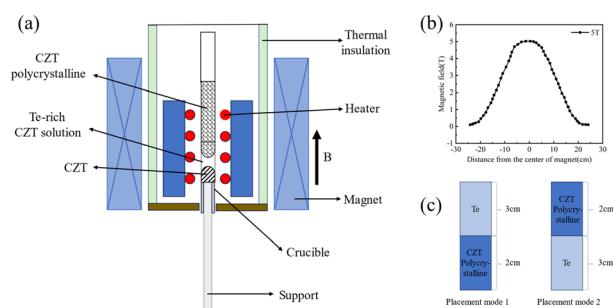
634



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*

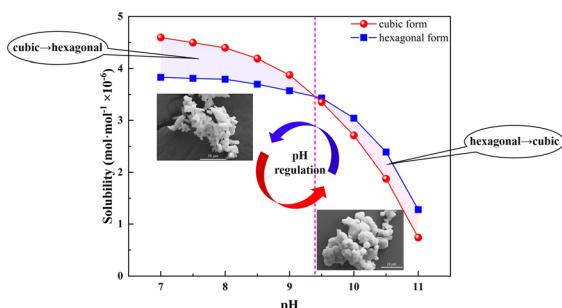
644



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*

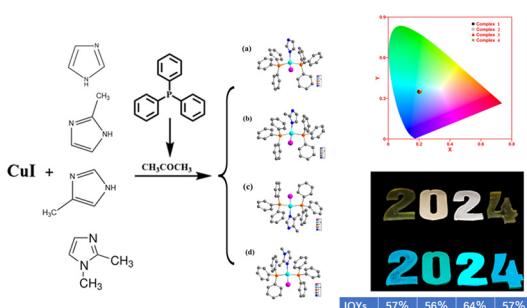
653



Mutual polymorphic transformation of CsMgPO4·6H2O induced by solution pH

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

661



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*

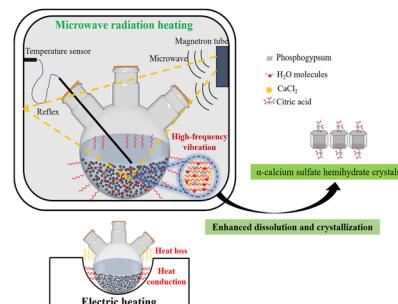


PAPERS

668

A novel approach for enhanced hydrothermal synthesis of α -calcium sulfate hemihydrate crystals from phosphogypsum by microwave irradiation

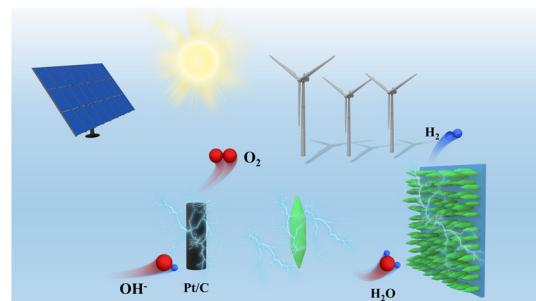
Weifan Du and Xianbo Li*



678

Ligand defect engineered $\text{NH}_2\text{-MIL-88B(Fe)}$ for efficient oxygen evolution reaction in alkaline seawater

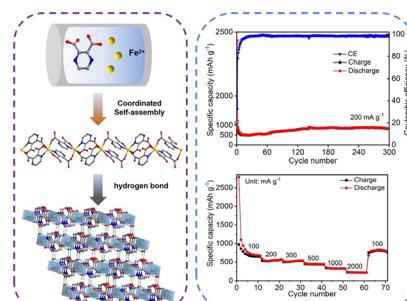
Dongling Xie, Jianan Wang, Bo Huang, Yiyi Yang, Dunmin Lin, Chenggang Xu and Fengyu Xie*



687

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*



695

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, Hirotoshi Sakagami, Hirotugu Minami, Satoshi Yamashita, Keiichi Hirano, Kazuyuki Hyodo, Masahide Kawamoto and Akio Yoneyama

