

# CrystEngComm

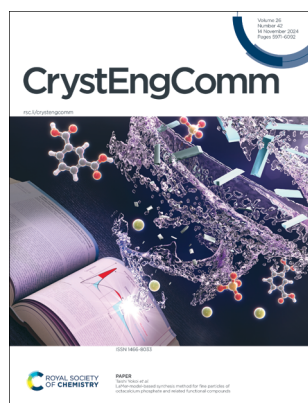
A journal at the forefront of the design and understanding of solid-state and crystalline materials

[rsc.li/crystengcomm](https://rsc.li/crystengcomm)

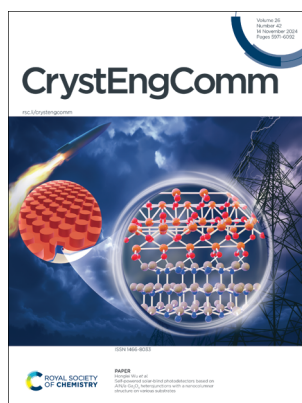
The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

## IN THIS ISSUE

ISSN 1466-8033 CODEN CRECF4 26(42) 5971-6092 (2024)



**Cover**  
See Taishi Yokoi *et al.*,  
pp. 6008–6016.  
Image reproduced by  
permission of Taishi Yokoi  
from *CrystEngComm*, 2024,  
26, 6008.



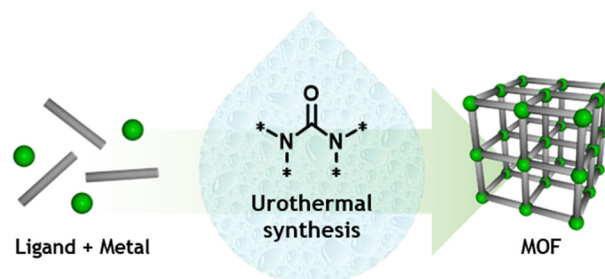
**Inside cover**  
See Honglei Wu *et al.*,  
pp. 6017–6024.  
Image reproduced by  
permission of Honglei Wu  
from *CrystEngComm*, 2024,  
26, 6017.

## HIGHLIGHT

5978

### Urothermal synthesis of metal–organic frameworks

Michaël Teixeira and Stéphane A. Baudron\*

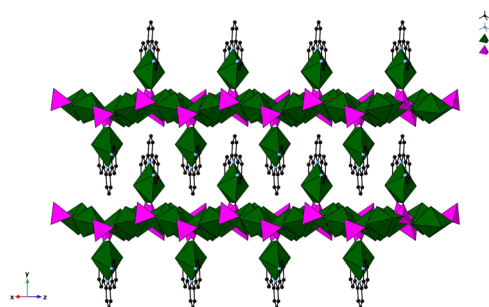


## COMMUNICATIONS

5991

### Hydrothermal synthesis and structure of organically templated layered neptunyl(vi) phosphate $(\text{NpO}_2)_3(\text{PO}_4)_2(\text{Terpy})$

Lei Zhang,\* Yu Wang, Mengyu Xu, Alex M. Kokot, Jie Qiu and Peter C. Burns



# ChemComm

## Uncover new possibilities with outstanding preliminary research

Original discoveries, fuelling  
every step of scientific progress

[rsc.li/chemcomm](https://rsc.li/chemcomm)

**Fundamental questions  
Elemental answers**

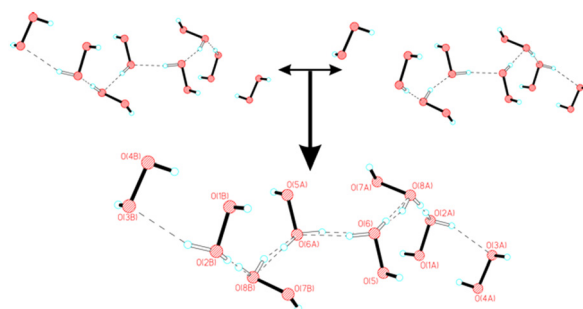


## COMMUNICATIONS

5996

### Three peroxomorphous $\text{H}_2\text{O}_2$ adducts of antibiotic furacin: the first cases of 2D hydrogen-bonded peroxide layers and concerted flip-flop hydrogen disorder of peroxide species

Andrei V. Churakov\*

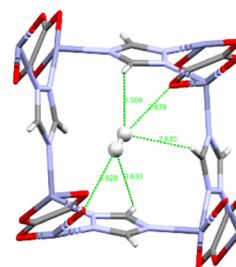


6003

### Hydrogen storage of commercially scalable CALF-20: a study at cryogenic and near-ambient temperatures

Ashley L. Sutton,\* M. Munir Sadiq, James I. Mardel and Matthew R. Hill

#### Hydrogen in CALF-20

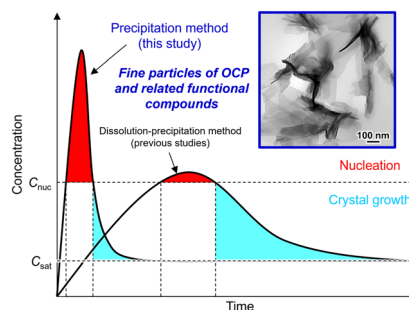


## PAPERS

6008

### LaMer-model-based synthesis method for fine particles of octacalcium phosphate and related functional compounds

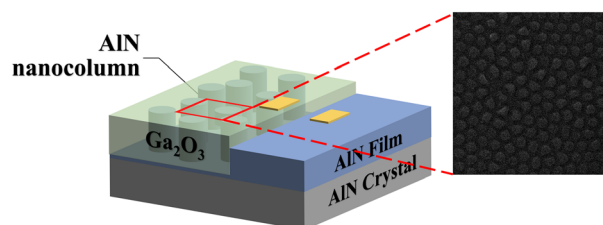
Taishi Yokoi,\* Tomoyo Goto, Tohru Sekino, Tomoka Hasegawa, Peng Chen, Hiroyasu Kanetaka, Kaname Yoshida, Masaya Shimabukuro and Masakazu Kawashita



6017

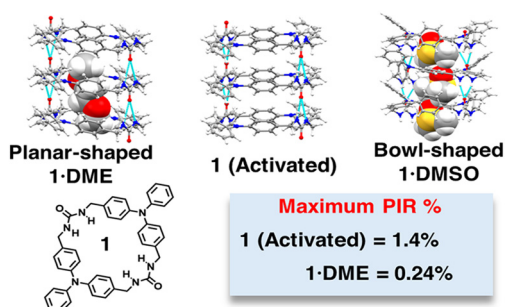
### Self-powered solar-blind photodetectors based on $\text{AlN}/\alpha\text{-Ga}_2\text{O}_3$ heterojunctions with a nanocolumnar structure on various substrates

Zhao Liu, Zelong Fan, Wenliang Li, Yuan Cao, Feihong Zhang, Zuoyan Qin, Zhenhua Sun, Baikui Li and Honglei Wu\*





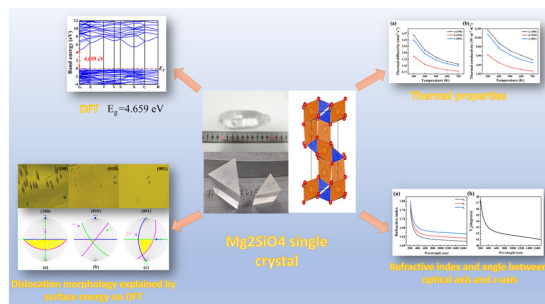
6025



### Examination of photoinduced radicals in two crystal forms of triphenylamine bis-urea macrocycles

Md Faizul Islam, Gamage Isuri P. Wijesekera, Ammon J. Sindt, Mark D. Smith and Linda S. Shimizu\*

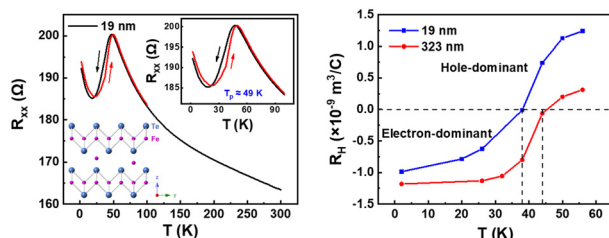
6034



### Crystal growth, dislocation, thermodynamic and optical properties, and electronic structure of Mg<sub>2</sub>SiO<sub>4</sub> single crystals

Wenli Qian, Mingliang Yang, Qingli Zhang,\* Guihua Sun,\* Rui Zhang, Xiaofei Wang, Renqin Dou, Wenpeng Liu and Yu Sun

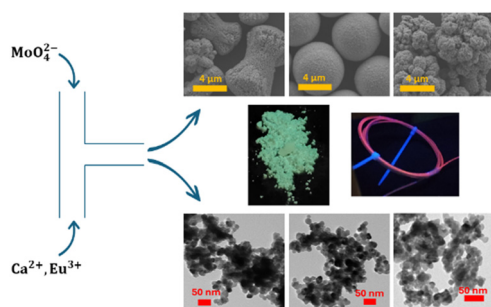
6045



### Single crystal growth and electrical transport of two-dimensional van der Waals antiferromagnetic Fe<sub>1.3</sub>Te

Gaojie Zhang, Ahmed Annas, Wenyu Lei, Hao Wu, Li Yang, Wen Jin, Bichen Xiao, Jie Yu, Wenfeng Zhang and Haixin Chang\*

6052



### Eu(III)-doped calcium molybdate nano- and microstructures: microfluidic synthesis and morphology tuning via solvent dielectric constant and viscosity control

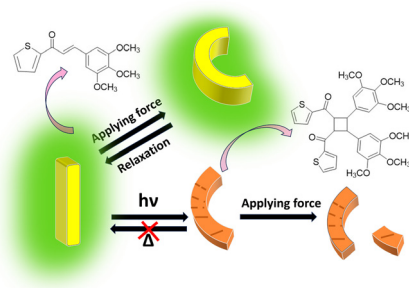
Pietro Ostellari, Francesca Tajoli, Ilaria Fortunati, Tommaso Carofiglio, Denis Badocco, Paolo Pastore and Silvia Gross\*



6065

### Photoinduced irreversible transformation from elastic to bent brittle crystals: importance of the reaction pathway in the irreversibility of the molecular movement

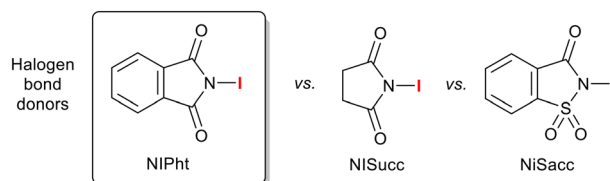
Shilpa Munthikkot, Srinu Tothadi and Sumy Joseph\*



6075

### *N*-Iodophthalimide as a halogen bond donor, a comparison with *N*-iodosuccinimide and *N*-iodosaccharin

Ie-Rang Jeon, Olivier Jeannin, Antoine Robert, Frédéric Barrière and Marc Fourmigué\*



6082

### Effect of the interchain interaction on the crystallization kinetics and crystal structure of polylactic acid under nitrogen

Qianyun Peng, Shaojie Li, Feng Liu, Guangxian Li and Xia Liao\*

