

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 26(11) 1497-1658 (2024)



Cover

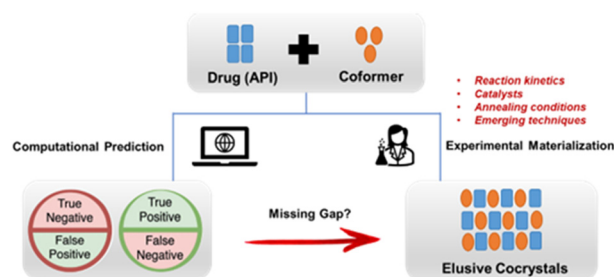
© Pixelparticle Shutterstock

HIGHLIGHT

1505

Discovery of new cocrystals beyond serendipity: lessons learned from successes and failures

Si Nga Wong, Minqi Fu, Si Li, Wan Tung Candice Kwok, Stephanie Chow, Kam-Hung Low and Shing Fung Chow*

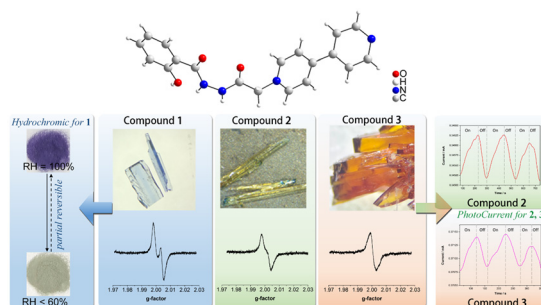


PAPERS

1527

Crystal structures and stimuli-responsive properties for three novel D-A type salicylhydrazide-viologen compounds with free radical properties under ambient conditions

Yu-Ru Xu, Wen-Hui Zheng, Zong-Bin Fang, Jian-Cai Huang and Shu-Ting Wu*



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit rsc.li/cpd-training

**SAVE
10%**

Registered charity number: 207890

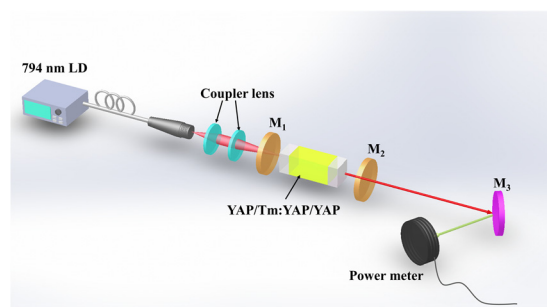


PAPERS

1534

Thermal simulation, optical and laser performances of a YAP/Tm:YAP/YAP composite crystal operated at 1.94 μm

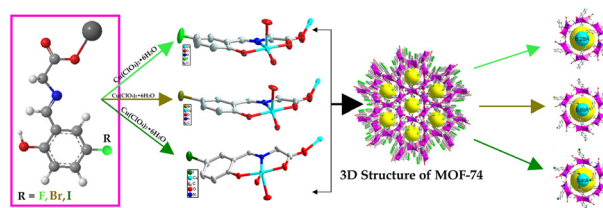
Maojie Cheng, Huili Zhang, Jianqiao Luo, Cong Quan, Zhiyuan Han and Dunlu Sun*



1540

Construction of MOF-74 analogues through pre-installation of functional ligands: efficient directional functionalization and properties

Nagesh Manurkar, Hao Su, Faiza Arshad, Zhongkui Li and Hui Li*



1550

Piezoelectric properties of $(\text{Sr}_{0.2}\text{Ca}_{0.8})_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$ and $\text{Ca}_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$ single crystals grown via vertical Bridgman method

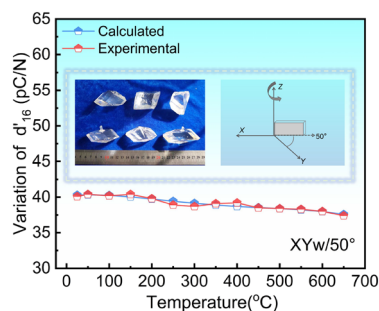
Lei Ai, Zhigang Sun, Linwen Jiang, Jianguo Pan, Yanqing Zheng* and Shangke Pan*



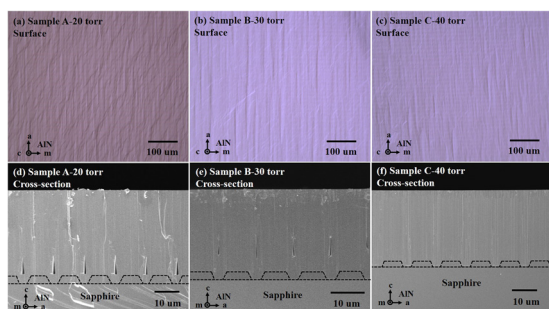
1556

The optimal high-temperature piezoelectric cuts of $\alpha\text{-BiB}_3\text{O}_6$ crystals and their fatigue behaviors at high-temperature and low-pressure

Mengyan Xu, Zhihong Ma, Guoliang Wang, Xiangkang Peng, Zijian Liu, Wei Liu, Xian Zhao* and Fapeng Yu*



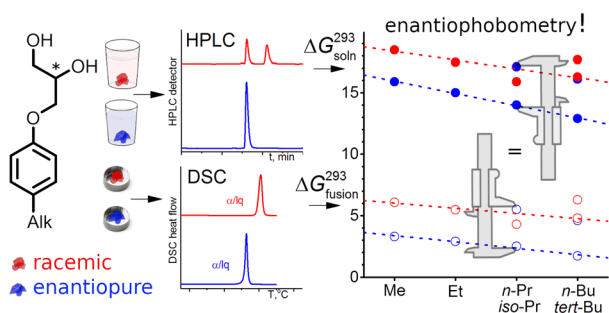
1565



Influence of pressure on AlN thick films prepared by epitaxial lateral overgrowth through hydride vapor phase epitaxy

Minghao Chen, Chunlei Fang, Qian Zhang, Zhijie Shen, Jianli Ji, Shuxin Tan, Yong Lu,* Ting Liu* and Jicai Zhang*

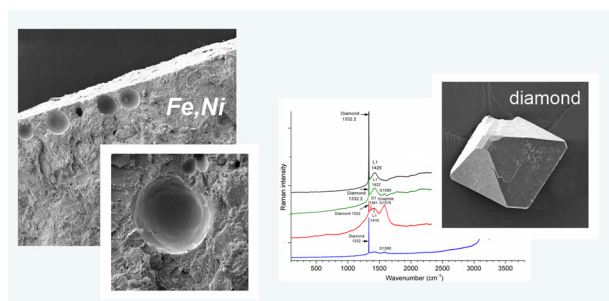
1571



Solubility- and melting-based approaches to evaluate the inner-crystal enantiophobia and enantiophilia undergoing a structural change within a homologous series, exemplified by chiral glycerol ethers

Dmitry V. Zakharychev* and Robert R. Fayzullin*

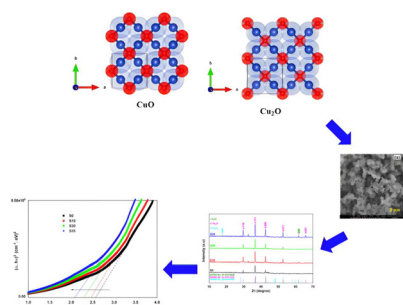
1583



Synthesis of diamond from polycyclic aromatic hydrocarbons (anthracene) in the presence of an Fe, Ni-melt at 5.5 GPa and 1450 °C

V. M. Sonin, E. I. Zhimulev, A. I. Chepurov, S. V. Goryainov, S. A. Gromilov, I. A. Gryaznov, A. A. Chepurov* and A. A. Tomilenko

1590



Optimizing the structure and optoelectronic properties of cuprite thin films via a plasma focus device as a solar cell absorber layer

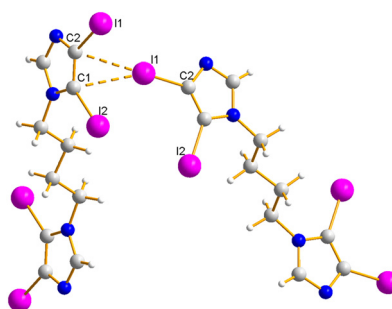
Ahmed M. Hassan,* Haifa A. Alyousef and Hesham M. H. Zakaly*



1607

4,5-Diiodo-1-*H*-imidazole-derived linker ligand and Cu(I) and Co(II) coordination polymers based thereupon

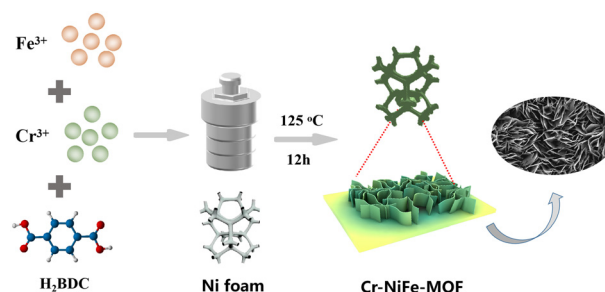
Alexander S. Zaguzin, Artem V. Zaitsev, Nikita A. Korobeynikov, Alexander S. Novikov, Andrey N. Usoltsev, Vladimir P. Fedin and Sergey A. Adonin*



1613

Tuning the d-band states of NiFe-MOFs by combining early and late transition metals for enhanced electrocatalytic oxygen evolution

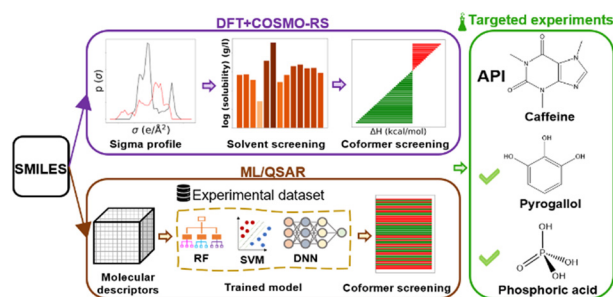
Dan Wen, Dongling Xie, Bo Huang, Qiuping Huang, Dunmin Lin, Chenggang Xu, Fengyu Xie,* Guangzhao Wang* and Wenhan Guo*



1620

Computational screening for prediction of co-crystals: method comparison and experimental validation

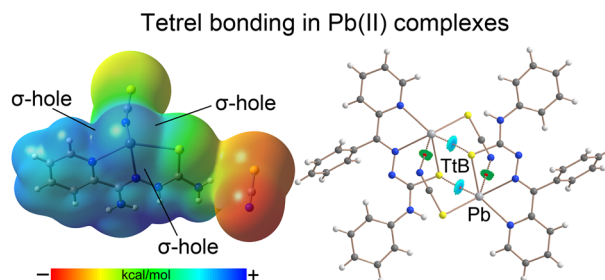
Fateme Molajafari, Tianrui Li, Mehrnaz Abbasichaleshtori, Moein Hajian Z. D., Anthony F. Cozzolino, Daniel R. Fandrick and Joshua D. Howe*

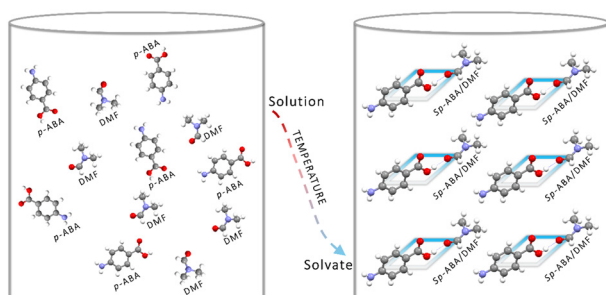


1637

On the pivotal role of tetrel bonding in the supramolecular architectures of Pb^{II}-NCS complexes with chelating thiosemicarbazide derivatives

Bagher Eftekhari-Sis, Isabel García-Santos,* Alfonso Castiñeiras, Ghodrat Mahmoudi,* Ennio Zangrando, Antonio Frontera* and Damir A. Safin*





Crystallization of *para*-aminobenzoic acid forms from specific solvents

Mohammed Noorul Hussain,* Luc Van Meervelt and Tom Van Gerven

