

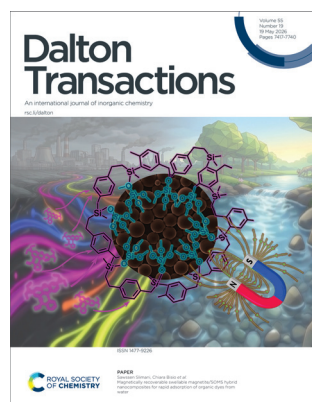
Dalton Transactions

An international journal of inorganic chemistry incorporating Acta Chemica Scandinavica
rsc.li/dalton

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

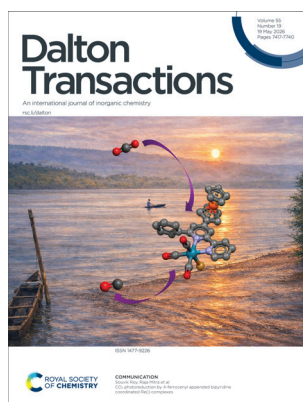
ISSN 1477-9226 CODEN DTARAF 55(19) 7417-7740 (2026)



Cover
See Sawssen Slimani, Chiara Bisio *et al.*, pp. 7502–7511.

Image reproduced by permission of Chiara Bisio from *Dalton Trans.*, 2026, **55**, 7502.

Acknowledgement: Cover generated with AI.



Inside cover
See Souvik Roy, Raja Mitra *et al.*, pp. 7468–7473.

Image reproduced by permission of Raja Mitra from *Dalton Trans.*, 2026, **55**, 7468.

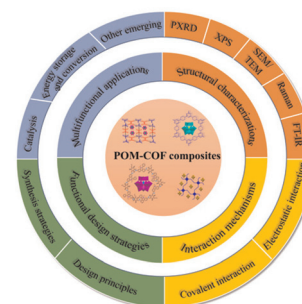
Acknowledgement: Cover image modified with AI.

PERSPECTIVES

7429

Recent advances in polyoxometalate–covalent organic framework composites: rational design, structural modulation, and application perspectives

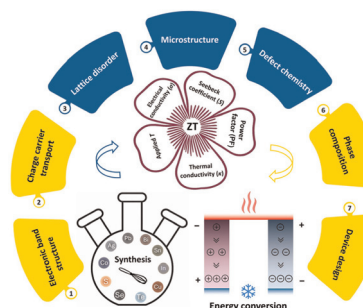
Sixue Kong, Xinxin Zhang,* Na Xu* and Xiuli Wang*



7444

Thermoelectric metal chalcogenides: a platform for anion mixing studies

Oleksandr Dobrozhan, Sajida Kousar, Girish C. Tewari and Maarit Karpinen*



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



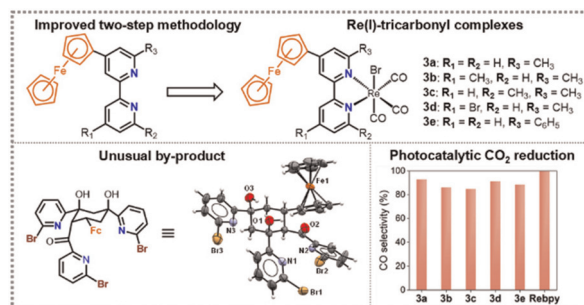
**SAVE
10%**

COMMUNICATIONS

7468

CO₂ photoreduction by 4-ferrocenyl appended bipyridine coordinated Re(I) complexes

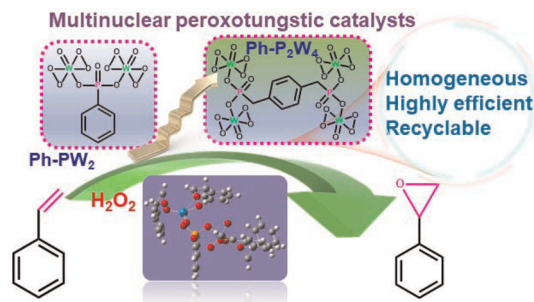
Shriya Saha, Dolores G. Gil-Gavilán, Matthias J. Gutmann, Debasish Manna, Souvik Roy* and Raja Mitra*



7474

Pre-constructed multi-peroxotungstic centers for highly efficient and recyclable organophosphorus-tungstic catalysts in styrene epoxidation

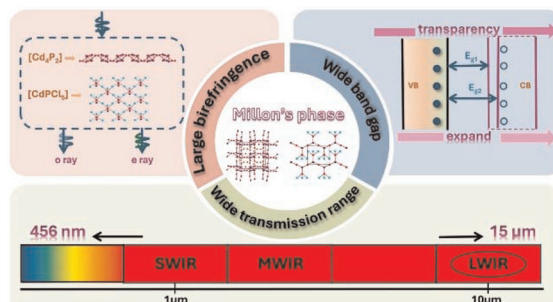
Chang Xu, Yuequn Li, Lin Tang, Weiqiang Yuan, Wenxi Chen, Jingjing Chen,* Haohong Li* and Huidong Zheng*



7480

[Cd₄P₂][I₃] and [Cd₂P][CdCl₃]: two Millon's phase phosphides exhibiting wide band gaps and large birefringence

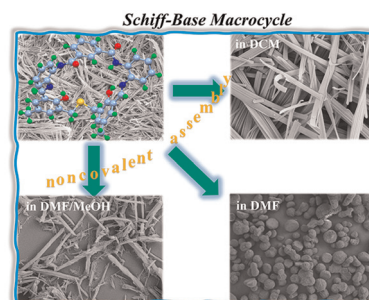
Fupeng Wang, Guang Peng,* Ning Ye* and Jindong Chen*



7487

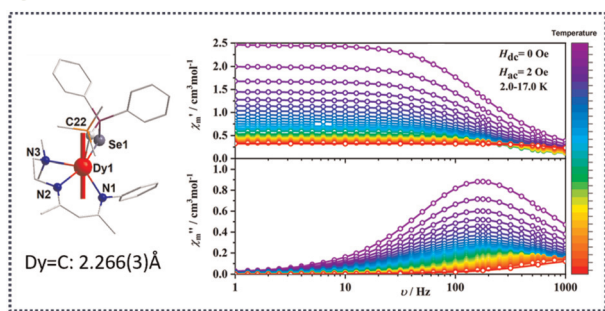
Noncovalent assembly strategy to significantly enhance the iodine adsorption capacity of a Schiff-base macrocycle

Chao Huang,* Shan-Xian He, Rong-Feng Li and Bi-Xue Zhu*



COMMUNICATIONS

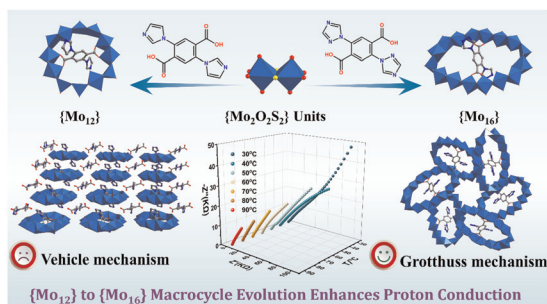
7492



A dysprosium alkylidene single molecule magnet

Yin-Cong Kong, Zi Yang, Yi Liu, Chen Wang,* Rong Sun, Zheng Sun, Bing-Wu Wang* and Song Gao

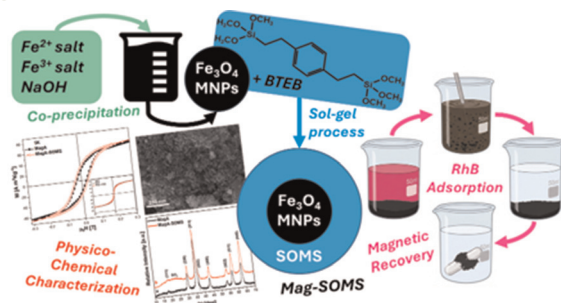
7497

Azole-carboxylate-modulated assembly of $[Mo_2O_2S_2]^{2+}$ units: structural evolution from $\{Mo_{12}\}$ to $\{Mo_{16}\}$ rings for enhanced proton conductivity

Huachao Liu, Rongqing Tang, Yubin Ma, Zhiyu Shao* and Weimin Xuan*

PAPERS

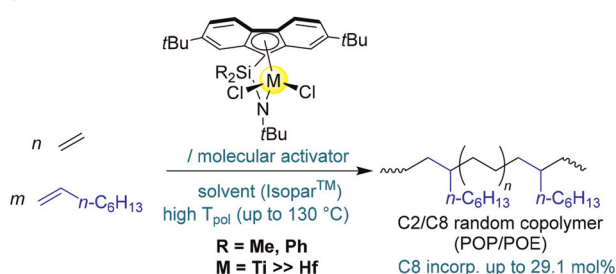
7502



Magnetically recoverable swellable magnetite/SOMS hybrid nanocomposites for rapid adsorption of organic dyes from water

Lorenzo Maccarino, Ibtissame Sidane, Gianni Barucca, Sawssen Slimani,* Leonardo Marchese, Davide Peddis and Chiara Bisio*

7512

 Ph_2Si -bridged constrained-geometry complexes of hafnium and titanium for copolymerization of ethylene and 1-octene: an experimental and computational comparison

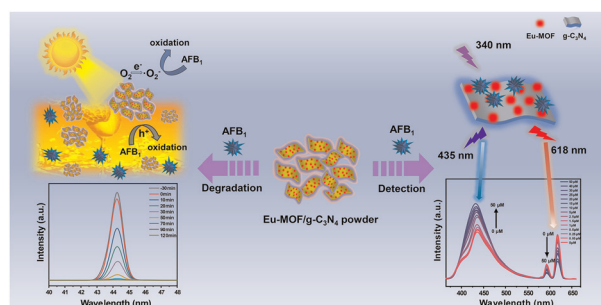
Ekaterina Kuchuk, Kaitie A. Giffin, Alexandre Welle, Katty Den Dauw, Alvaro Fernandez, Marie Cordier, Thierry Roisnel, Jean-Francois Carpentier* and Evgueni Kirillov*



7521

Dual-emission luminescent Eu-MOF/g-C₃N₄ nanomaterials: a novel bifunctional platform for aflatoxin B₁ detection and degradation

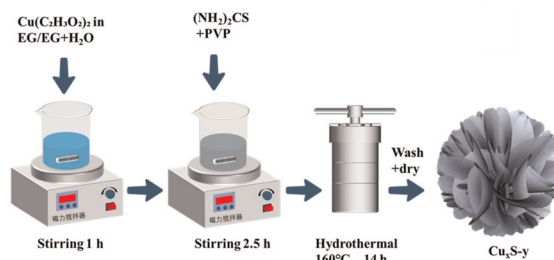
Wenjing Yin, Ping Liu, Wenzhen Du, Xuefang Lan,* Qingli Yang* and Yongchao Ma*



7532

Multifunctional copper sulfide nanoflowers for superior supercapacitors and microwave absorption

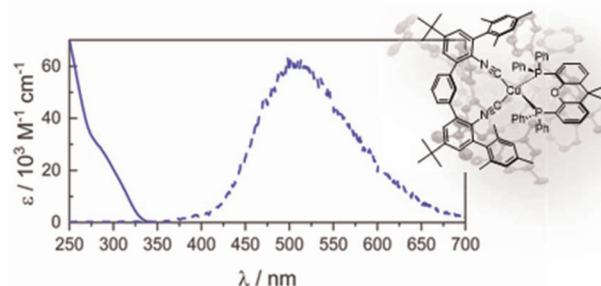
Maiyong Zhu* and Kai Zhang



7546

Photoactive four-coordinate copper(i) complexes based on chelating diimine, diphosphine, and diisocyanide ligands with high excited-state energies

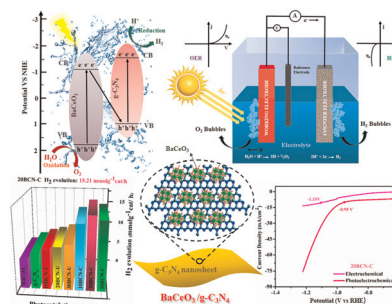
Tim H. Eggenweiler, Alessandro Prescimone, Daniel Häussinger and Oliver S. Wenger*



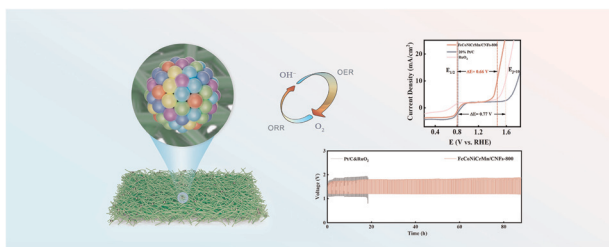
7554

Facile synthesis of BaCeO₃@g-C₃N₄ n-type semiconductor heterojunctions for green hydrogen production via multimodal photo and electro-catalytic pathways

Shireen Khan, Syed Asim Ali, Amna Khatoon, Bhawna Rawat, Kamalakannan Kailasam and Tokeer Ahmad*



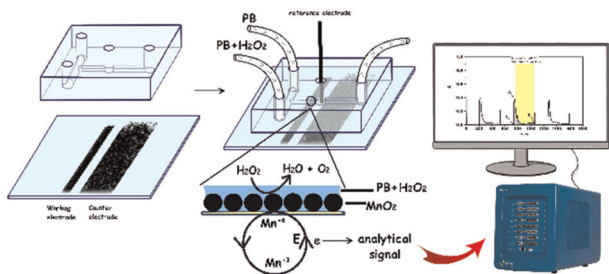
7566



Thermally tuning FeCoNiCrMn high-entropy alloy in carbon nanofibers for superior bifunctional oxygen electrocatalysis toward flexible zinc–air batteries

Lingli Xia, Peng Dai,* Kun Huang, Hui Zhang, Zhenmeng Peng and Mingzai Wu*

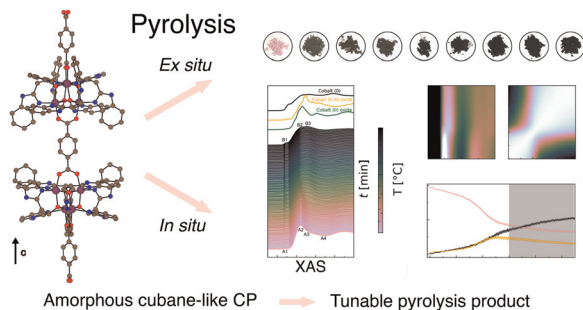
7577



Co²⁺ ion-doped MnO₂ electrode for microfluidic H₂O₂ biosensors: formation, characterization, and catalytic performance

Veronika Poltavets,* Mirosław Krawczyk, Ganna Maslak and Martin Jönsson-Niedziółka*

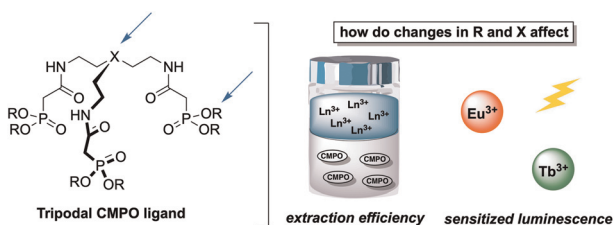
7588



Pyrolysis of an amorphous cobalt(II) cubane-like coordination polymer towards tunable structurally disordered materials

Sara Frank, Mads Folkjær, Melissa J. Marks, Simon J. L. Billinge and Nina Lock*

7600



Five tripodal CMPO ligands with varying degrees of hydrophobicity: influence on f-element extraction ability and lanthanide luminescence

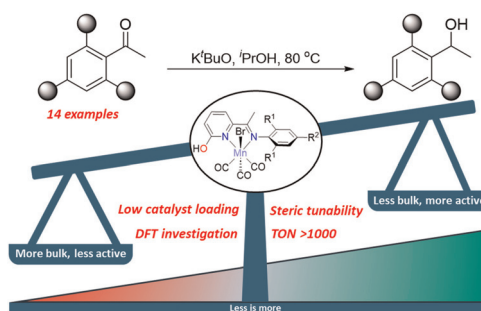
Brianna M. Gordon, Brandon G. Wackerle, Nancy A. Martinez, Katherine Mast, Faith M. Carlson, Caroline C. Graham, Thea Matter, Colin Carter, Katie Colesa, Emily G. Esqueda, Eric J. Werner and Shannon M. Biros*



7612

Steric tuning of OH-functionalised *N,N*-manganese(i) complexes for the transfer hydrogenation of carbonyl compounds

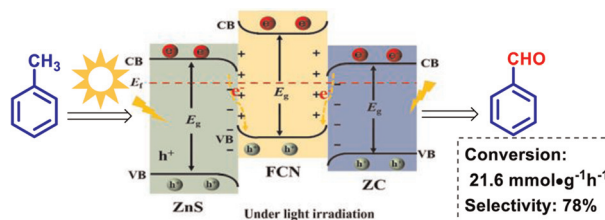
Samuel J. Prettyman, Saad Alqahtani, Mona H. Alhalafi, Kuldip Singh and Gregory A. Solan*



7624

A dual Z-scheme ZnS@g-C₃N₄@ZnIn₂S₄ heterojunction for enhanced photocatalytic selective oxidation of toluene

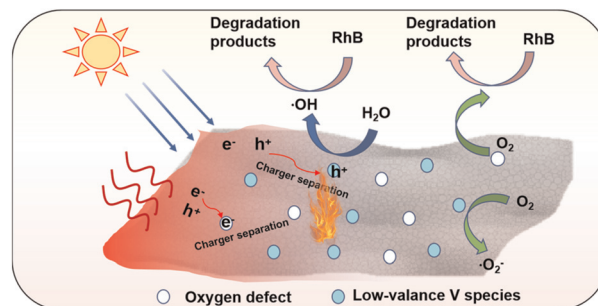
Mengting Li, Mengyao Shi, Jianmin Li, Yahong Xie, Xiaokaiti Abulizi, Jide Wang,* Yonghong Zhang* and Changyan Guo*



7633

Photothermal catalysis driven by defect-engineered Mn-doped V₂O₅ for efficient rhodamine B degradation

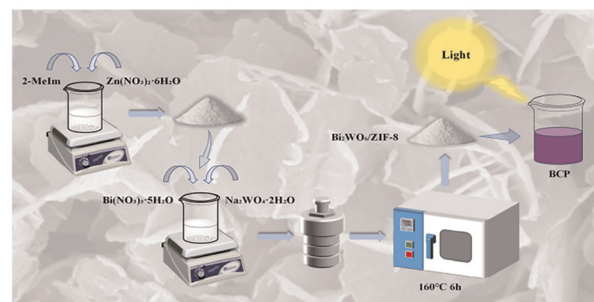
Xiaoxia Zhou,* Jixing Fan, Zhiming Zhou, Xiaoxiao Yu, Zhili Song, Zihua Wu* and Huaqing Xie



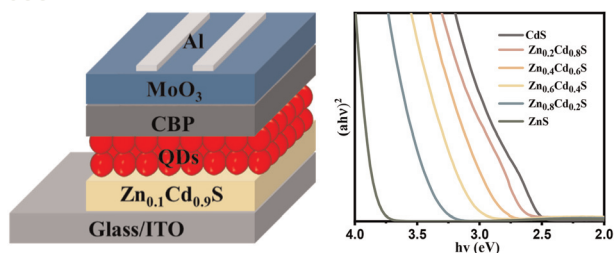
7641

A Bi₂WO₆/ZIF-8 composite nanomaterial: enhanced photocatalytic performance

Huizhen Liu, Yong Fan and Jie-Hui Yu*



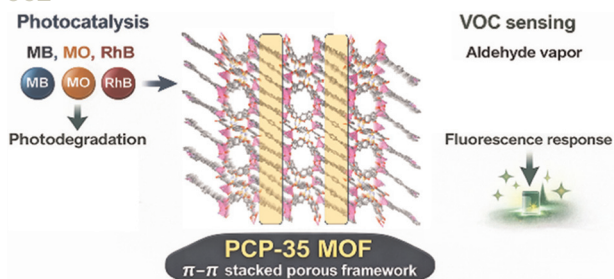
7653



Bandgap-tunable $Zn_xCd_{1-x}S$ electron transport layers for high-performance inverted quantum dot light-emitting diodes

Yuanlin Huang, Chen Lin, Mengxin Liu,* Xinan Shi* and Daocheng Pan*

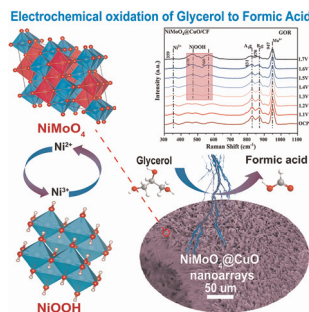
7662



A Zn(II)-based metal–organic framework constructed from cyclotriphosphazene hexacarboxylate and π -conjugated bisterpyridine ligands for dual applications in dye photodegradation and VOC sensing

Elif Özcan

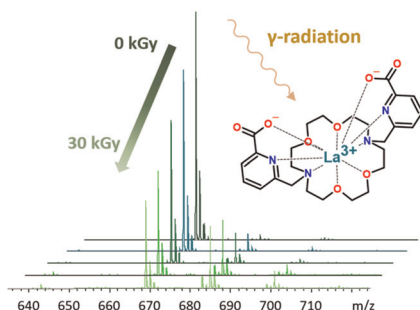
7674



An electrocatalytic strategy for biomass upgrading: highly selective conversion of glycerol to formic acid via $NiMoO_4@CuO/CF$ catalysis

Gang Yan,* Jiyao Zhang and Huaqiao Tan*

7685



Effect of lanthanide(III) complexation on the radiolytic stability of Macropa

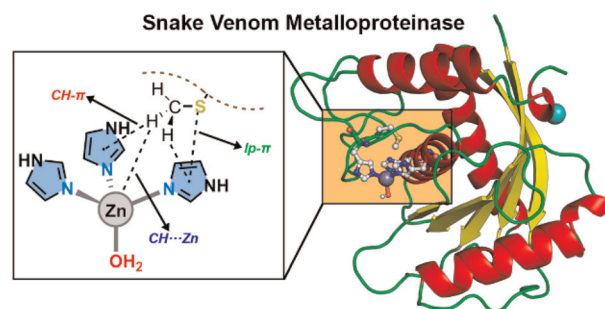
Alexandre Gaspar, Julie Hostier, Dominique Guillaumont,* Claude Berthon, Xavier Hérès, Luca Briscese, Bertrand Kuhnast and Laurence Berthon*



7696

Exploring the noncovalent chemistry in the catalytic centers of snake venom metalloproteinases: a computational perspective

Carles Jaume Rodríguez, Catalina Nicolau and Antonio Bauzá*

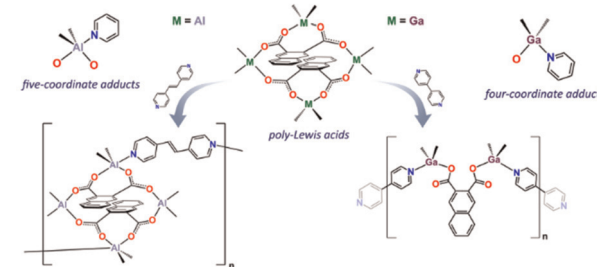


7709

Structural diversity of dimethylgallium naphthalene-2,3-dicarboxylate/pyridine systems

Maksymilian Solka, Michał Terlecki, Iwona Justyniak,* Wanda Ziemkowska, Daniel Prochowicz and Janusz Lewiński*

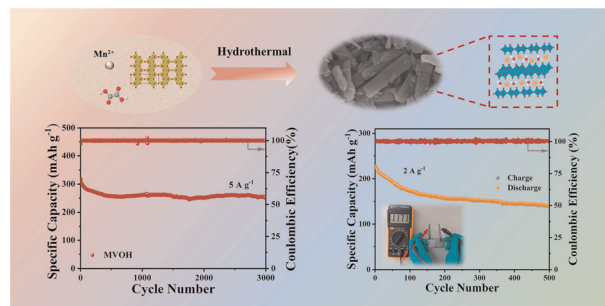
Influence of the Nature of Group 13 Metal Centers on the Construction of Coordination Polymers



7718

Mn²⁺-intercalated hydrated vanadium oxide with tunable spacing for high-performance zinc-ion batteries

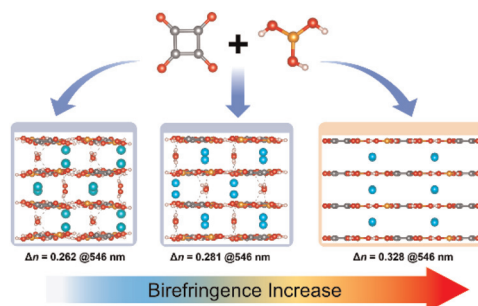
Yuling Tu, Dejun Gong, Lirong Jia, Zeming Lu, Jun Gao, Hui Chai,* Yali Cao, Xiaogang Zhang and Naseem Iqbal



7729

Design of borate-squarate hybrid crystals with large birefringence by synergistic assembly of planar π -conjugated groups

Haowen Li, Xiao Wang, Hui Chai* and Fangfang Zhang*



CORRECTIONS

7737

Correction: A flexible sensor based on a multilayer polymer/AgNW composite film for temperature and strain sensing

Wenjing Ruan, Jian Chen, Shengxi Du, Wei Xu and Yan Xiong*

7738

Correction: Cooperative enhancement of redox catalysis in divanadium complexes binucleated by 1,8-naphthyridine-2,7-dicarboxylate

Simran Simran, Maxym Tansky, Seth Trabulsi, Liangzi Deng, Ching-Wu Chu, Andrew Ozarowski, Vinh Dang and Robert J. Comito*

