

# Dalton Transactions

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**Cover**  
See Yongtao Tan *et al.*,  
pp. 11505–11515.

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**Inside cover**  
See Xue-Zhi Song,  
Jing Liang, Xiao-Feng Wang,  
Zhenquan Tan *et al.*,  
pp. 11516–11524.

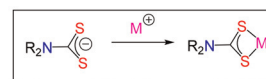
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## PERSPECTIVE

11464

### Addressing misconceptions in dithiocarbamate chemistry

David Pugh and Graeme Hogarth\*

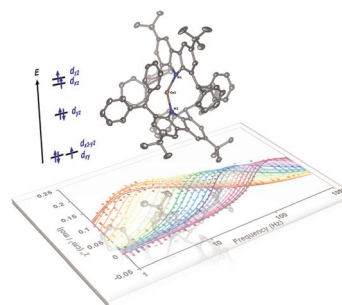


## COMMUNICATIONS

11495

### Unquenched orbital angular momentum in quasi-linear two-coordinate transition metal complexes featuring sterically bulky carbazole ligands

Sadia Noor, Samantha Stegman, Jacob B. Palmer and Brian S. Dolinar\*



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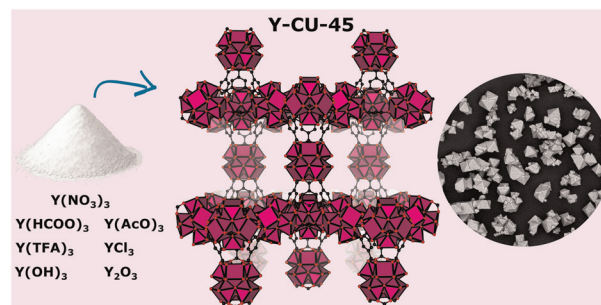
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## COMMUNICATIONS

11500

### Exploring the synthesis of a rare-earth cluster-based metal–organic framework using alternative yttrium(III) precursors

Hudson A. Bicalho, Isabella Lopez-Delgado, Clara V. Diniz, Zoey Davis and Ashlee J. Howarth\*

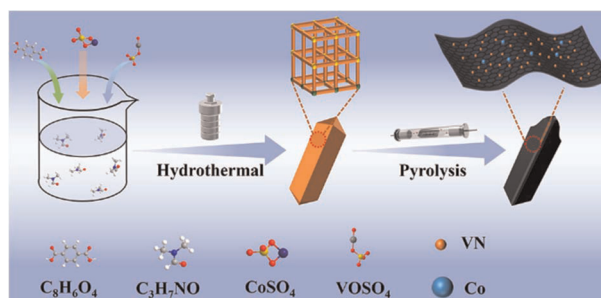


## PAPERS

11505

### Co-doped vanadium nitride/carbon composite fabricated from cobalt–vanadium metal–organic framework precursors for supercapacitors

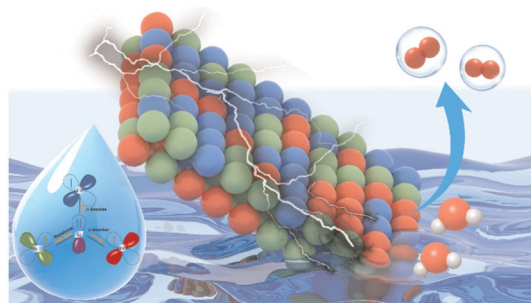
Yongtao Tan,\* Fengwei Tuo and Yuan Zhang



11516

### Electronic structure regulation in medium-entropy CoNiFeSe enabling efficient and durable oxygen evolution electrocatalysis

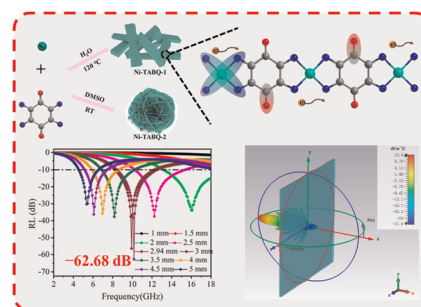
Yu-Xin Luan, De-Kun Liu, Yu-Xiang Chen, Xue-Zhi Song,\* Jing Liang,\* Xiao-Bing Wang, Wen-Qiang Sun, Yu-Lan Meng, Chen-Yu Shen, Ruichen Zhou, Jinxuan Liu, Xiao-Feng Wang\* and Zhenquan Tan\*



11525

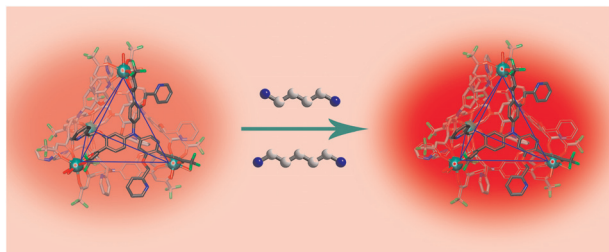
### Promoting electromagnetic wave absorption for conductive metal–organic frameworks through crystal morphology controlling

Xueling Wang, Xuan Zhang, Jiaqi Lu and Zhiliang Liu\*



## PAPERS

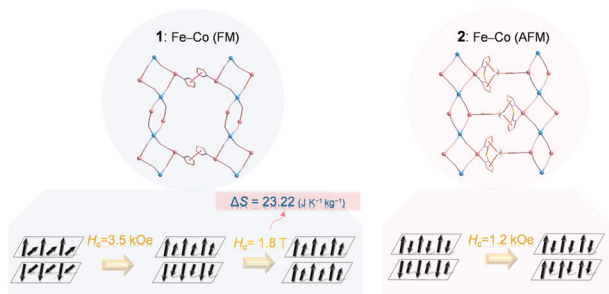
11533



### An $\text{Eu}_4\text{L}_4$ tetrahedron with multiple recognition sites: a luminescent sensor for rapid and sensitive detection of biogenic amines

Yuan Yao, Li Li, Tongxi Zhou, Su Wang, Ying Qin, Chao Fan, Yuying Fu, Guoliang Liu\* and Hongfeng Li\*

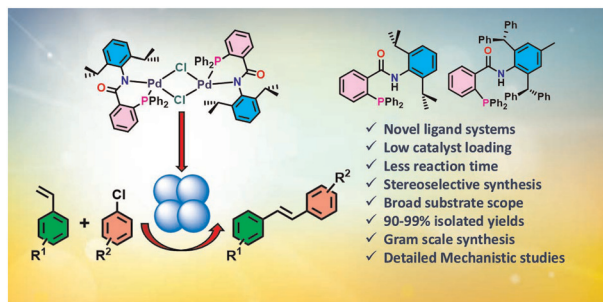
11542



### Cyano-bridged $\{\text{Fe}_2\text{Co}\}$ assemblies showing metamagnetic transition and a magnetocaloric effect

Yu-Jing Gao, Ji-Peng Luo, Nan Yin, Quan Shi,\* Yin-Shan Meng\* and Tao Liu\*

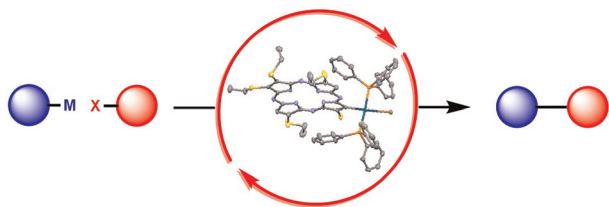
11551



### Sterically hindered P,N-type amidophosphines $\{(o\text{-PPh}_2)\text{C}_6\text{H}_4\}\text{C}(\text{O})\text{NH}(\text{R})\}$ : synthesis, transition metal chemistry, and catalytic activity in stereoselective Heck coupling of aryl chlorides

Gazal Sabharwal, Khilesh C. Dwivedi and Maravanji S. Balakrishna\*

11563



### Synthesis, electronic properties, structural studies, and catalytic activity of peripherally metalated $\beta\text{-}\eta^1\text{-Pd}(\text{II})\text{-thioalkyl porphyrzine}$

Sandra Belviso,\* Giuseppe Larotonda, Ernesto Santoro, Alessandro Santarsiere and Angela Tuzi

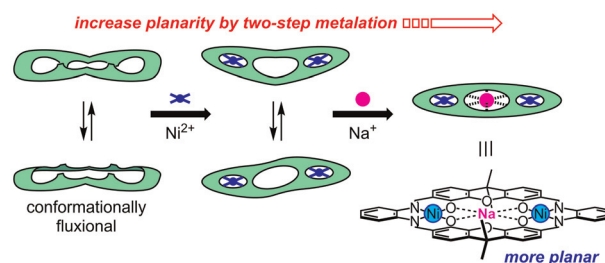


## PAPERS

11573

### Synthesis of a xanthene-based macrocyclic imine ligand and two-step planarization by metalation with $\text{Ni}^{2+}$ and $\text{Na}^+$

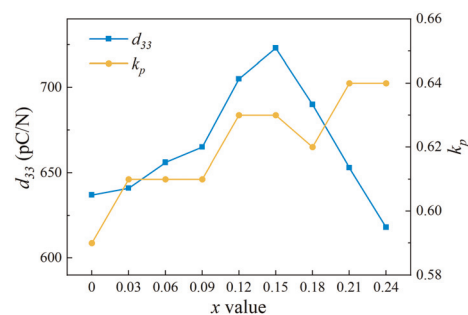
Shigehisa Akine,\* Masato Nakano, Yoko Sakata and Seiji Tsuzuki



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### Significantly improved Curie temperature and electrical properties of Sm-doped $\text{Pb}(\text{Ni}_{1/3}\text{Nb}_{2/3})\text{O}_3$ - $\text{PbZrO}_3$ - $\text{PbTiO}_3$ by introducing $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$

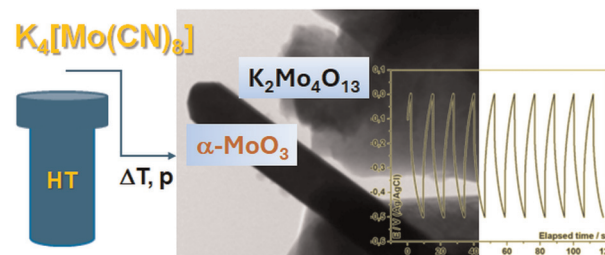
Haoran Yu, Liang Cao, Jiajia Wang, Jian Guo, Ji Zhang and Shan-Tao Zhang\*



11588

### Rare $\alpha$ - $\text{MoO}_3$ - $\text{K}_2\text{Mo}_4\text{O}_{13}$ hybrid structures obtained via a single molecular precursor approach

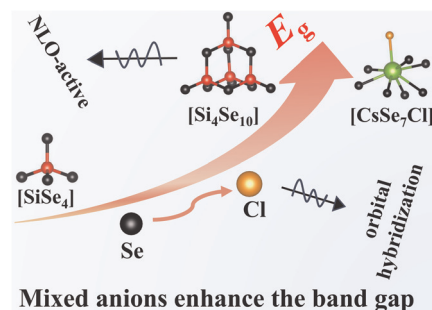
Loredana Preda, Diana Visinescu,\* Elena Ionela Neacsu, Maria Marcu, Tanta Spataru, Cristian D. Ene, Silviu Preda, Vasile-Adrian Surdu, Bogdan Ștefan Vasile, Roxana Doina Trușcă, Adrian-Ionuț Nicoară, Elena Mirabela Soare, Maria-Gabriela Alexandru\* and Adelina-Carmen Ianculescu



11601

### A wide band gap selenohalide $\text{Cs}_9\text{Si}_8\text{Se}_{20}\text{Cl}$ with unprecedented $[\text{CsSe}_7\text{Cl}]$ mixed anionic units

Guansong Zheng, Wang Zhao, Xiaoyu Wu, Hongshan Wang, Yinxia Du, Juanjuan Lu, Xiao-dong Zhou\* and Junjie Li\*



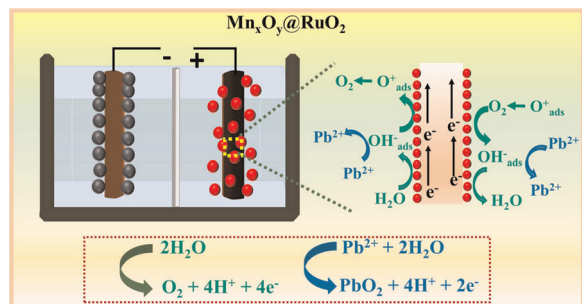
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### Testing lanthanide(III) complex stability using Eu(III) luminescence – documenting complex formation and stability in any media

Vasileios Mouchtouris, Lea Gundorff Nielsen and Thomas Just Sørensen\*

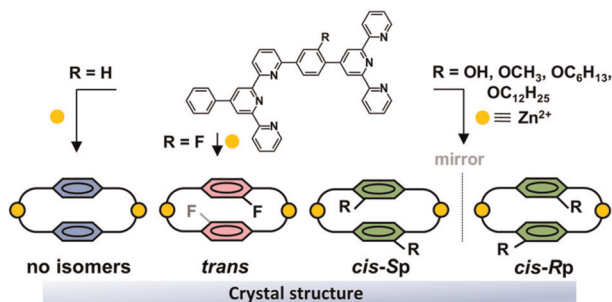
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### Manganese MOF-derived ruthenium-doped $Mn_xO_y$ catalyst for enhanced oxygen evolution reaction and energy-efficient lead recovery

Xiaoyue Wang, Rajapriya Andavar, Jiahong Xie, Wenli Liu, Yanzhi Sun,\* Yongmei Chen, Yang Tang, Pingyu Wan and Junqing Pan\*

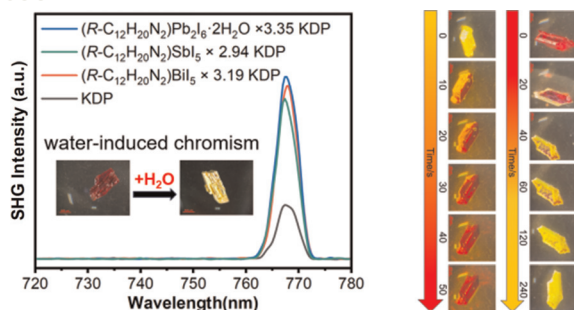
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### Stereoisomers of metal–organic dimers induced by the steric constraint of dissymmetric terpyridine ligands

Jianjun Ma, Hao Yu, Ning Zhang, Junjuan Shi, Jiaqi Li, Kehuan Li, Ningxu Han, Houyu Zhang, Junmin Chang\* and Ming Wang\*

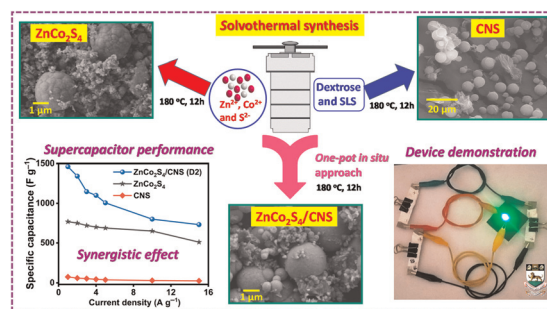
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### One-pot *in situ* solvothermal synthesis of ZnCo<sub>2</sub>S<sub>4</sub>/carbon nanosphere composites: tuning carbon content for high-performance supercapacitor electrodes

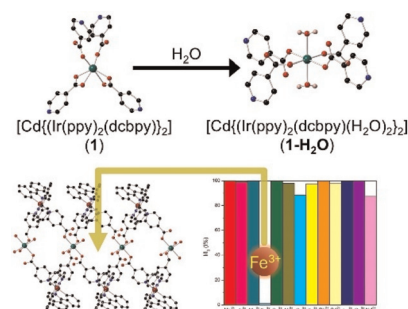
Raji Yuvaraja, Sankar Sarathkumar, Venkatesan Gowsalya, Sorna Pandian Anitha Juliet, Selvakumar Veeralakshmi, Siva Kalaiselvam, Gunniya Hariyanandam Gunasekar and Selvan Nehru\*



11656

### Coordination polymers with iridium(III) metalloligands: the effect of pore size upon luminescent cation sensing

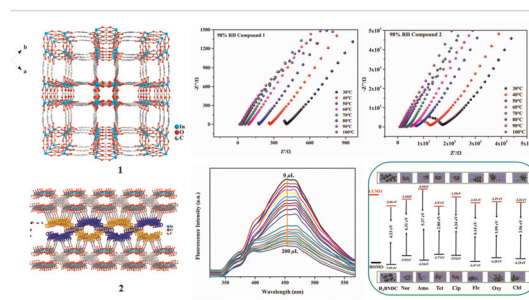
Zhejun Hong, Pattara Siripanich, Oliver G. Stansfield, Christopher R. Hall, Timothy U. Connell\* and Carol Hua\*



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### Solvent-induced framework interpenetration isomers and tuning of porosity of In-MOFs for efficient proton conduction and fluorescence sensing

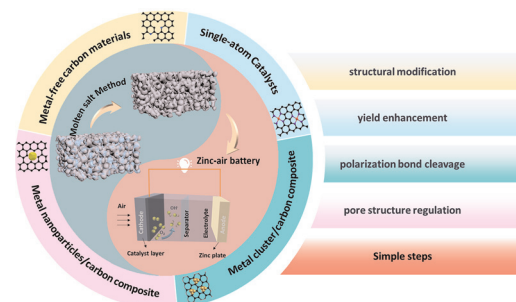
Guimei Huang, Zilian Li, Zhiyong Xing, Mengxia Ma, Chuanbin Fan, Shiming Li, Feng Guo\* and Yuanji Teng\*



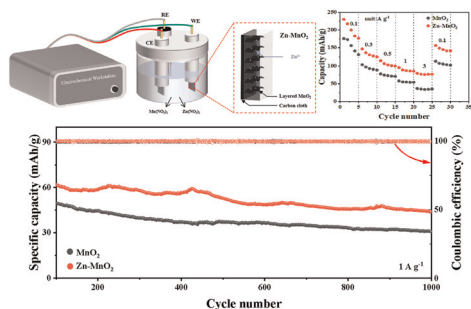
11676

### Molten salt strategy: a universal approach for constructing high-performance bifunctional carbon-based electrocatalysts for zinc–air batteries

Zhongliang Li, Zhaoxin Liu, JianSheng Liu, Haojie Tong, Musen Du, Yannan Li,\* Zhanli Chai\* and Yan Zhao\*



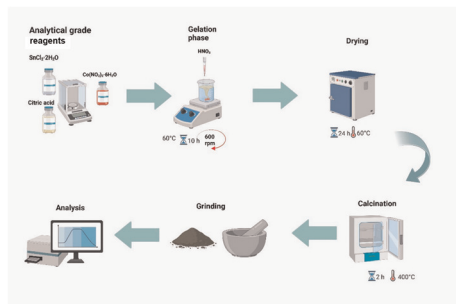
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### Developing high-performance Zn<sup>2+</sup>-pre-inserted MnO<sub>2</sub> via *in situ* electrodeposition for aqueous Zn-ion batteries

Xingpeng Li, Weidong Liu, Haofan Sun, Yonglei Chi, Duojie Gengzang, Guoheng Zhang, Haiyan Jiao, Qiong Chen, Peiyu Wang, Xiaoyan Deng, Bao Yang, Anren Ma, Shengguo Zhang and Wanjun Chen\*

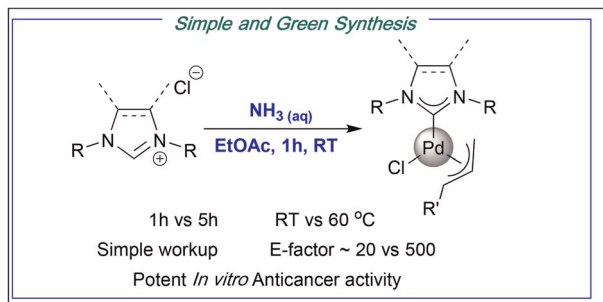
11702



### Structural, optical, dielectric, and electronic properties of cobalt-doped SnO<sub>2</sub> nanoparticles for anode applications in energy devices

B. M. Alotaibi, Ahmed S. Ali, Ahmed M. Hassan and Hesham M. H. Zakaly\*

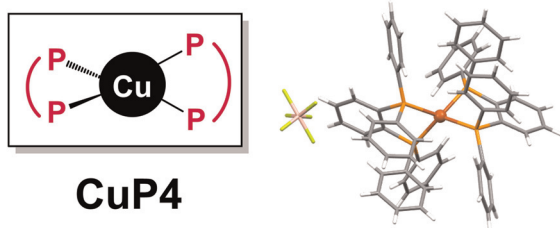
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### Facile and green synthesis of [Pd(NHC)(η<sup>3</sup>-R-allyl)Cl] complexes and their anticancer activity

Riku Saito, Pierre Arnaut, Benon Maliszewski, Laura Tripodi, Isabella Caligiuri, Flavio Rizzolio, Thomas Scattolin\* and Steven P. Nolan\*

11725



- spectroscopic, electrochemical & theoretical studies
- photocatalytic activity for organic synthesis

### Homoleptic copper(I)-bisphosphine complexes as photoredox catalysts

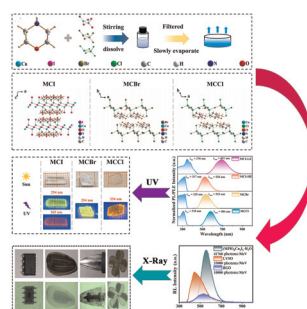
Priya Saha, Ryunosuke Tomita, Takao Tsuneda, Pingyu Jiang, Tetsuya Taketsugu, Mingoo Jin and Dennis Chung-Yang Huang\*



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### Efficient single-phase tunable dual-color emission copper(i) scintillators for X-ray imaging

Yihao Wang, Zhengguang Yan,\* Chen Li, Yiping Du and Jiawen Xiao\*



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### Mn(III) porphyrins as photosensitizers: structural, photophysical and anticancer studies

Bidisha Bora, Namisha Das, Jakia Parbin Sultana, Md Kausar Raza\* and Tridib K. Goswami\*

