

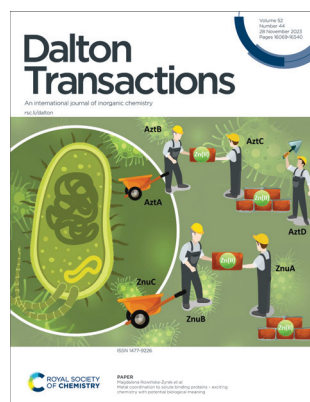
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See Magdalena Rowińska-Żyrek *et al.*, pp. 16140–16150.

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Inside cover

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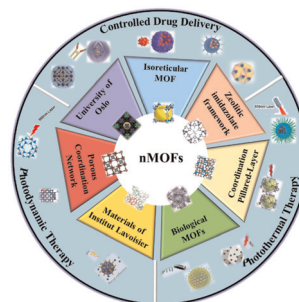
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PERSPECTIVE

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Recent advances in the nanoarchitectonics of metal–organic frameworks for light-activated tumor therapy

Huijuan Duan, Fang Wang, Weizhe Xu, Gang Sheng, Zhaogang Sun* and Hongqian Chu*

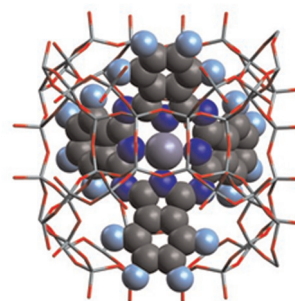


FRONTIER

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Ethan P. Iaia, Ademola Soyemi, Tibor Szilvási* and James W. Harris*



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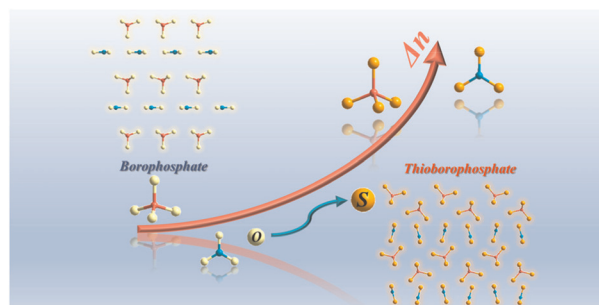


COMMUNICATIONS

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Ba₃(BS₃)(PS₄): the first alkaline-earth metal thioborate–thiophosphate with strong optical anisotropy originating from planar [BS₃] units

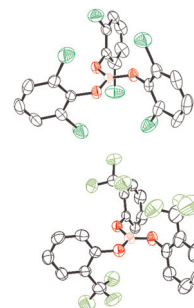
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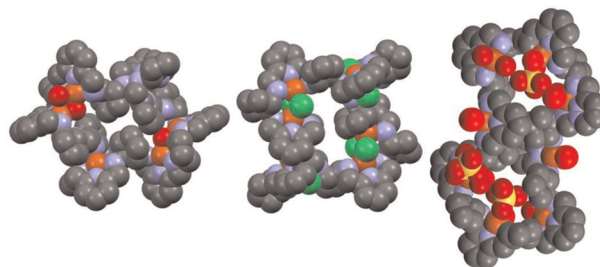
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Hexa- and octanuclear copper(II) complexes with a tetraeicosaaza amine macrocycle

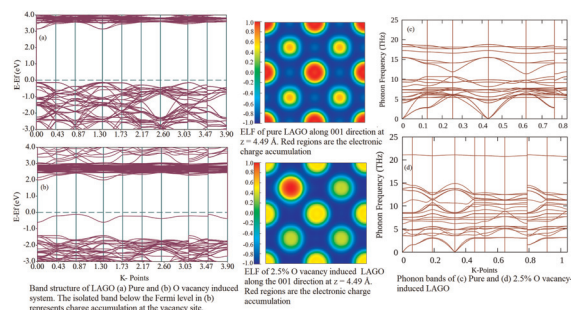
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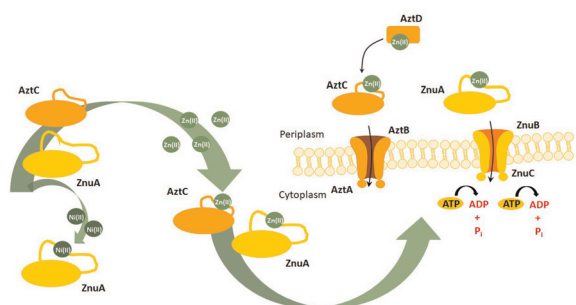
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The role of oxygen defects in the electronic, optical and phonon dispersion of the LAGO perovskite: a density functional theory investigation

Chaithanya P. Bhat, Ashwin K. Godbole and Debashis Bandyopadhyay*



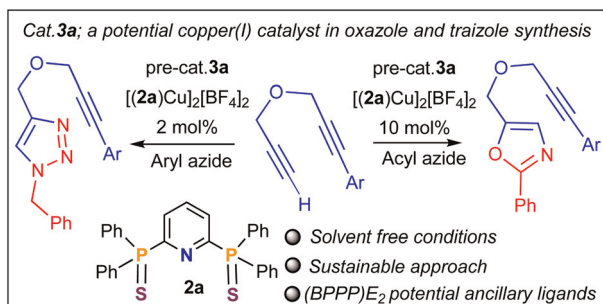
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Metal coordination to solute binding proteins – exciting chemistry with potential biological meaning

Kinga Garstka, Denise Bellotti, Joanna Wąty, Henryk Kozłowski, Maurizio Remelli and Magdalena Rowińska-Żyrek*

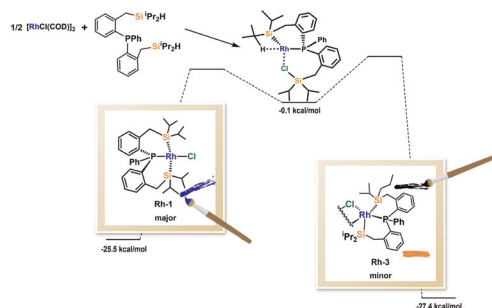
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Dicationic copper(I) complexes bearing ENE (E = S, Se) pincer ligands; catalytic applications in regioselective cyclization of 1,6-diynes

Bhagyashree Das, Amiya Kumar Sahoo, Shyam Kumar Banjare, Subhra Jyoti Panda, Chandra Shekhar Purohit and Adinarayana Doddi*

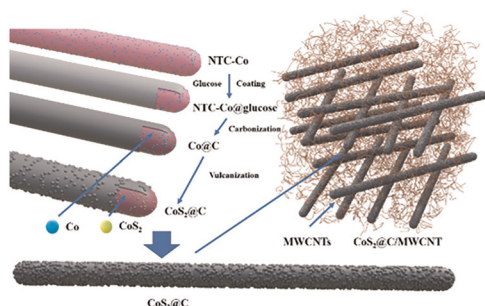
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Niroshani S. Abeynayake, Nghia Le, Gabriela Sanchez-Lecuona, Bruno Donnadieu, Charles Edwin Webster* and Virginia Montiel-Palma*

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CoS₂@C catalyzes polysulfide conversion to promote the rate and cycling performances of lithium–sulfur batteries

Yufei Zhang, Xinhang Liu, Qi Jin, Fengfeng Han, Zhiguo Zhang, Xitian Zhang* and Lili Wu*

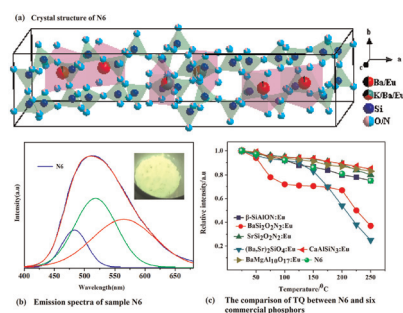


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Oxynitride $\text{K}_2\text{Ba}_{6.72}\text{Si}_{16}\text{O}_{40-1.5y}\text{N}_y\text{:0.28Eu}^{2+}$ phosphor with high thermal stability realized by crystal field engineering

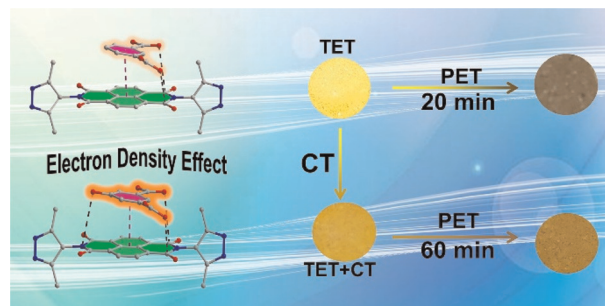
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Gao-Peng Li,* Jing Zhang, Wan-Wan Ren, Si-Nan Wang, Ying-Xia Wang, Yun-Long Fu* and Yao-Yu Wang*



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Oxygen-carrying acid-responsive Cu/ZIF-8 for photodynamic antibacterial therapy against cariogenic *Streptococcus mutans* infection

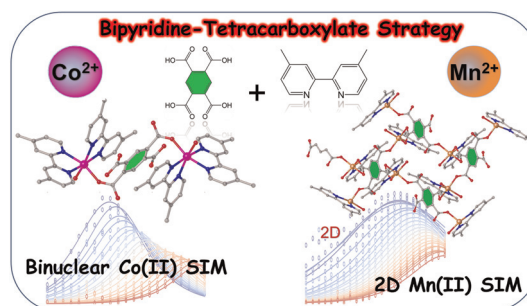
Ruifeng Wang, Qiyan Pan, Fang Li, Jingying Guo, Yaru Huo, Chao Xu, Manwen Xiong, Ziyong Cheng, Min Liu* and Jun Lin*



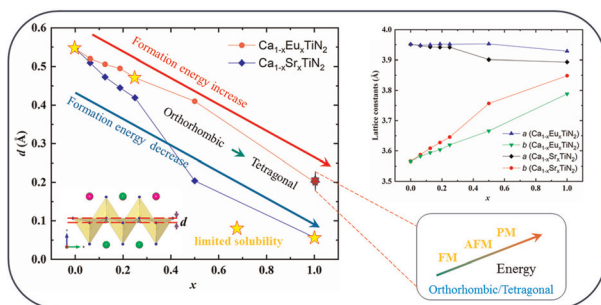
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Binuclear cobalt(II) and two-dimensional manganese(II) coordination compounds self-assembled by mixed bipyridine-tetracarboxylic ligands with single-ion magnet properties

Dong-Qing Wu,* Kusum Kumari, Yi Wan, Xueling Gao, Mengxi Guo, Genyan Liu, Dong Shao,* Bin Zhai and Saurabh Kumar Singh*



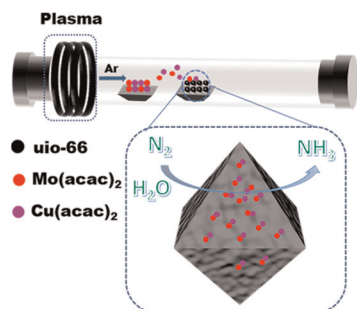
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KCoO₂-type layered nitrides Ca_{1-x}Eu_xTiN₂: structural stability, electrical properties and Eu coordination chemistry

Junwei Liu, Bowen Zhang, Shenglin Lu, Xing Ming* and Xiaojun Kuang*

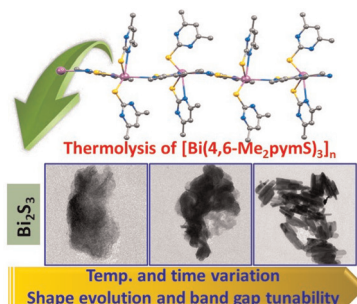
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Double-single-atom MoCu-embedded porous carbons boost the electrocatalytic N₂ reduction reaction

Zhiya Han, Chenbao Lu, Senhe Huang, Xinyu Chai, Zhenying Chen, Xintong Li, Jilong Wang, Jingshun Zhang,* Boxu Feng,* Sheng Han* and Rongbin Li*

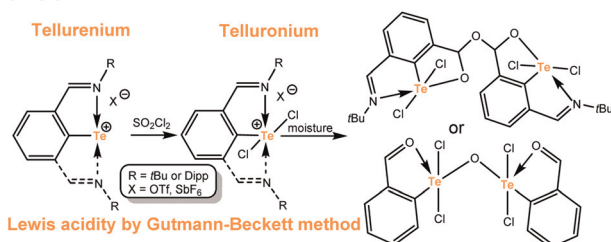
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Controlled synthesis of photoresponsive bismuthinite (Bi₂S₃) nanostructures mediated through a new 1D bismuth-pyrimidylthiolate coordination polymer as a molecular precursor

Atharva Yeshwant Kulkarni, Gourab Karmakar, Alpa Y. Shah, Sandeep Nigam, Gayatri Kumbhare, Adish Tyagi,* Raymond J. Butcher, Rohit Singh Chauhan* and N. Naveen Kumar

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Martin Hejda, Lukáš Doležal, Jan Blahut, Emanuel Hupf, Jiří Tydlitát, Roman Jambor, Aleš Růžicka, Jens Beckmann* and Libor Dostál*

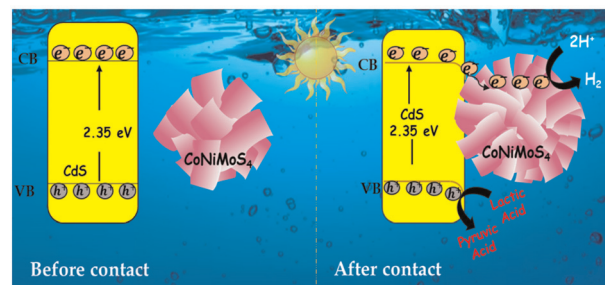


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Positioning hydrogen reaction sites by constructing CdS/CoNiMoS₄ heterojunctions for efficient photocatalytic hydrogen evolution

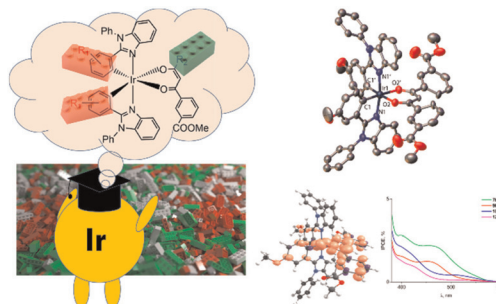
Pooja Varma, Rama Krishna Chava, Chunli Liu, Tae Kyu Kim and D. Amaranatha Reddy*



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Rational design of efficient photosensitizers based on cyclometalated iridium(III) complexes with 2-arylbenzimidazole and aromatic 1,3-diketone ligands

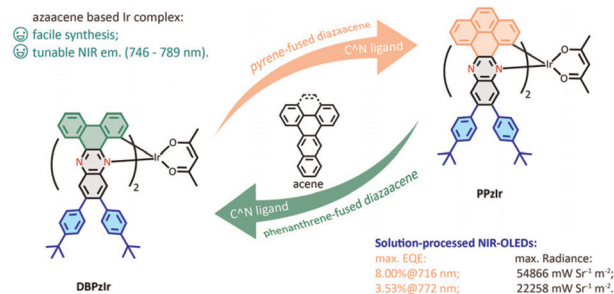
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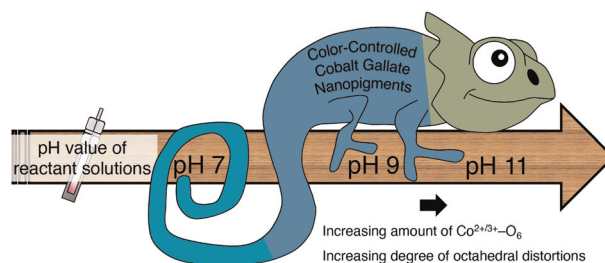
Min Li, Li Wang, Caifa You,* Denghui Liu, Kai Zhang and Weiguo Zhu*



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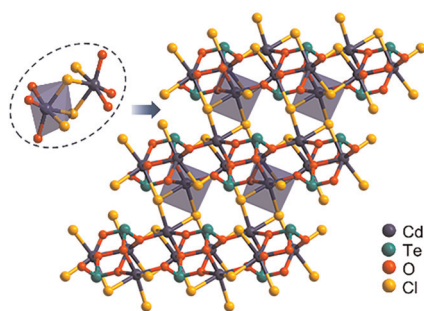
Color-controlled nonstoichiometric spinel-type cobalt gallate nanopigments prepared by supercritical hydrothermal synthesis

Bo Xie, Chiya Numako, Takashi Naka and Seiichi Takami*



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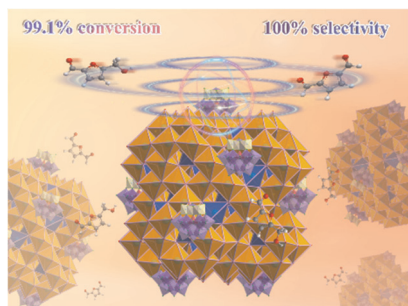
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Synthesis, structure and characterization of $\text{Cd}_2\text{TeO}_3\text{Cl}_2$ with unprecedented $[\text{Cd}_2\text{O}_6\text{Cl}_4]$ octahedral dimers

Linan Wang, Chen Bai, Yingying Kong, Maqsood Iqbal, Yu Chu* and Junjie Li*

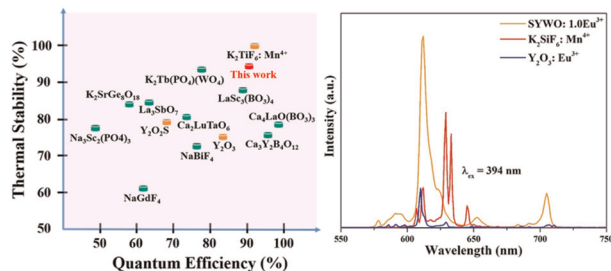
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Enhanced catalysis of a vanadium-substituted Keggin-type polyoxomolybdate supported on the $\text{M}_3\text{O}_4/\text{C}$ ($\text{M} = \text{Fe}$ or Co) surface enables efficient and recyclable oxidation of HMF to DFF

Yun-Dong Cao, Wen-Xia Mu, Mengdi Gong, Lin-Lin Fan,* Jie Han, Hong Liu,* Bin Qi and Guang-Gang Gao*

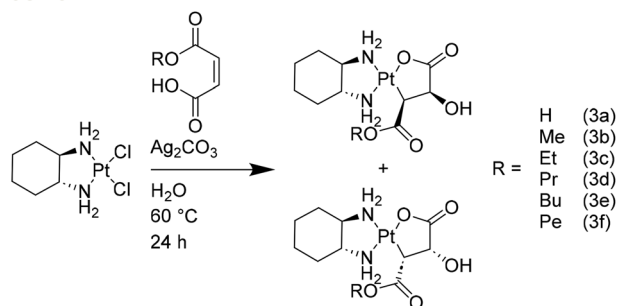
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Limited energy migration and circumscribed multiphonon relaxation produced non-concentration quenching in a novel dazzling red-emitting phosphor

Yue Wang, Kexin Zhao, Bohuai Shao, Chuang Wang* and Ge Zhu*

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Thomas Maier, Judith Wutschitz, Natalie Gajic, Michaela Hejl, Klaudia Cseh, Sebastian Mai, Michael A. Jakupec, Mathea S. Galanski* and Bernhard K. Keppler*

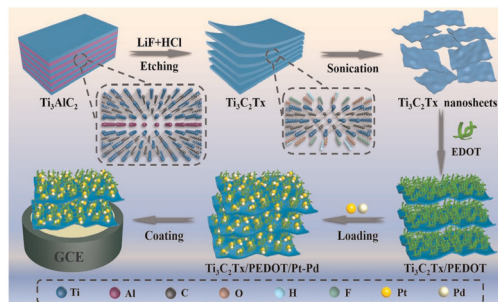


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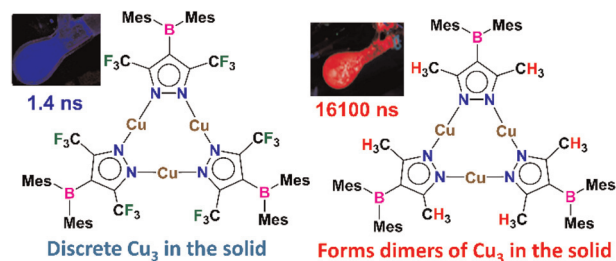
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Green synthesis of carbon-supported ultrafine ZnS nanoparticles for superior lithium-ion batteriesYing-Yi Han, Xuefei Zhang, Bi-Cui Chen,
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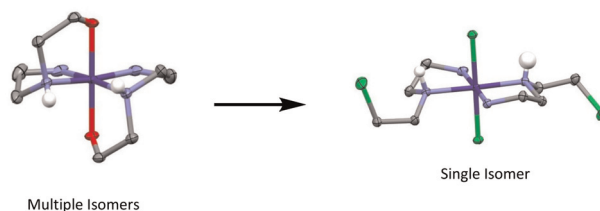
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PEDOT-embellished $\text{Ti}_3\text{C}_2\text{Tx}$ nanosheet supported Pt–Pd bimetallic nanoparticles as efficient and stable methanol oxidation electrocatalystsShuyue Xie, Fangfei Liu, Tursun Abdiryim,* Xiong Liu,
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Yajun Liu, Hujun Zhang and Xinsheng Tang

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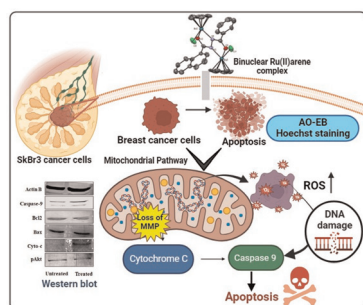
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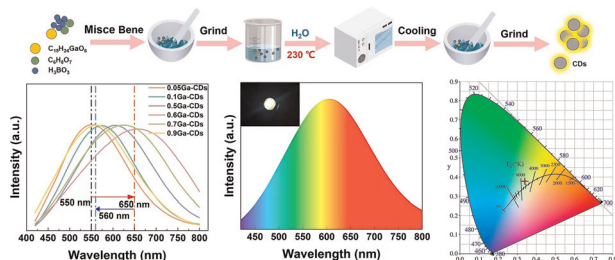
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Naphthoyl benzhydrazine–decorated binuclear arene Ru(II) complexes as anticancer agents targeting human breast cancer cells

Arunachalam Abirami, Umapathy Devan, Rengan Ramesh,* Arockiam Antony Joseph Velanganni and Jan Grzegorz Matecki

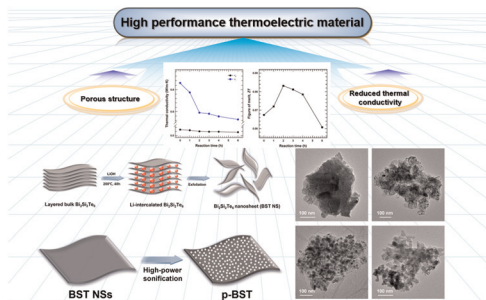
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Bright solid-state luminescence and high-temperature resistance of Ga-doped carbon dots with ultra-wideband white emission for light-emitting diodes

Xiao Gao, Hongquan Yu,* Zhanwen Han, Baojiu Chen,* Jiashi Sun and Xiangping Li

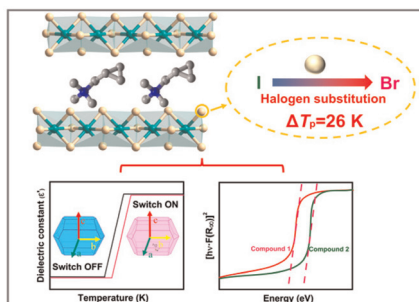
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Highly porous thermoelectric composites with high figure of merit and low thermal conductivity from solution-synthesized porous $\text{Bi}_2\text{Si}_2\text{Te}_6$ nanosheets

Dabin Park, Minsu Kim and Jooheon Kim*

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The halogen substitution strategy of inorganic skeletons triggers dielectric and band gap regulation of hybrid perovskites

Xiao-Tong Sun, Ying-Yu Zhang, Yan Han, Xiao-Ping Wang, Jie Li, Jun-Yi Li, Hao-Fei Ni, Da-Wei Fu* and Zhi-Xu Zhang*

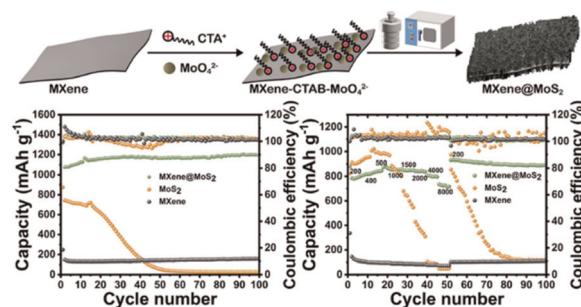


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Few-layer MoS₂ nanosheets vertically supported on Ti₃C₂-MXene sheets promoting lithium storage performance

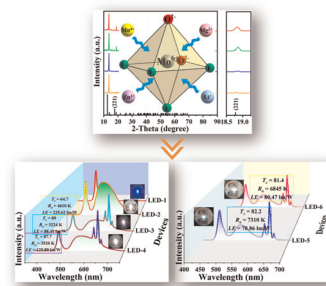
Hankun Tan, Lei Zhang, Kaiyue Gao, Li Sun,*
Yihe Zhang* and Feng Xie



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Optical enhancement of highly efficient organic–inorganic oxyfluoride red phosphors *via* the cation co-doping strategy

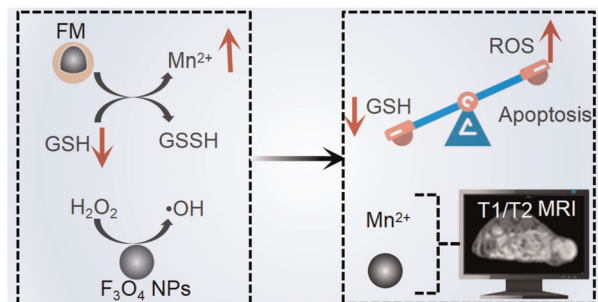
Xiaoyi Liu, Haiming Cheng, Hu Wang, Zhu Wen,
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Dual-targeting nanotheranostics for MRI-guided enhanced chemodynamic therapy of hepatoma *via* regulating the tumor microenvironment

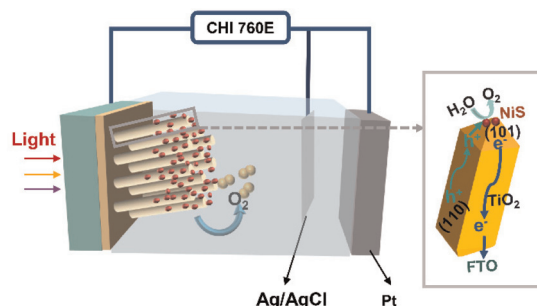
Jinwu Liu, Hong Qu, Lifeng Hang, Yiqiang Sun,
Wuming Li, Yiyu Chen, Hong Li, Wei Wen,*
Yanqiu Feng* and Guihua Jiang*



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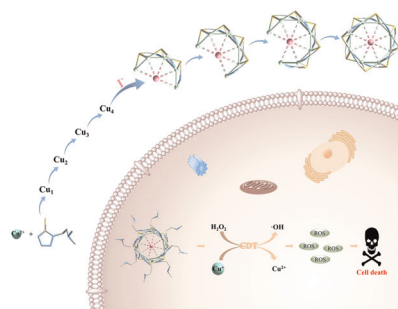
Enhanced photoelectrochemical performance of NiS-modified TiO₂ nanorods with a surface charge accumulation facet

Suyi Yang, Baoyuan Wang, Rui Zhao, Liting Wei and
Jinzhao Su*



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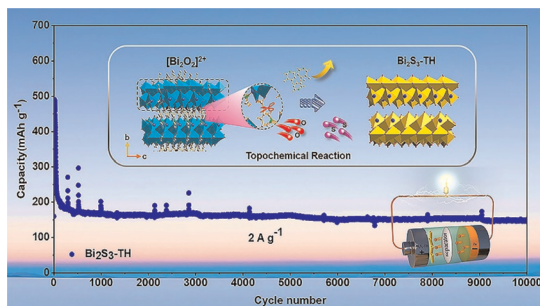
16451



Stepwise formation of a chemodynamic therapy agent of $\{Cu_8\}$ macrocyclic complex recognized by iodide ions

Sudi Huang, Jingjing Zhong, Xinyi Huang, Yuqing Jia, Zhaoguo Hong and Fu-Ping Huang*

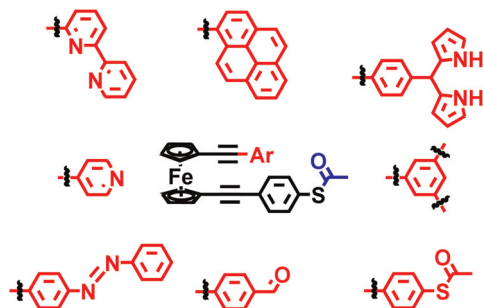
16456



A topochemical reaction induced the formation of Bi_2S_3 micro-straws from a Bi-MOF for an ultra-long Zn storage life

Lei Gou,* Kai Liang, Wen-Yan Wang, Ya-Ting Lei, Shou-Lin Xie, Ding-Kai Wei, Dong-Lin Li and Xiao-Yong Fan*

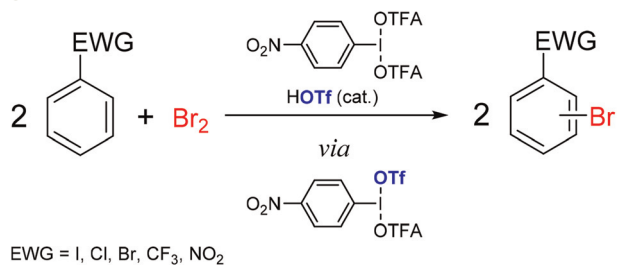
16465



A convenient synthesis of ferrocene-(ethynylphenyl)thioacetates

Troy L. R. Bennett and Nicholas J. Long*

16472



Electrophilic activation of molecular bromine mediated by $I(III)$

Lachlan Sharp-Bucknall, Tania, Marcus Sceney, Lachlan Barwise and Jason L. Dutton*



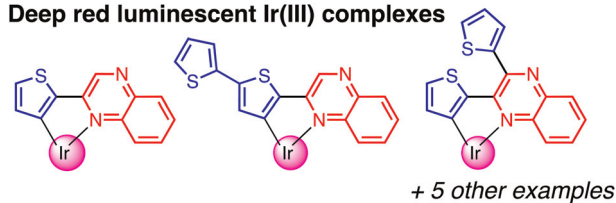
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16480

2-(Thienyl)quinoxaline derivatives and their application in Ir(III) complexes yielding tuneable deep red emitters

Sophie A. Fitzgerald, Ellie N. Payce, Peter N. Horton, Simon J. Coles and Simon J. A. Pope*

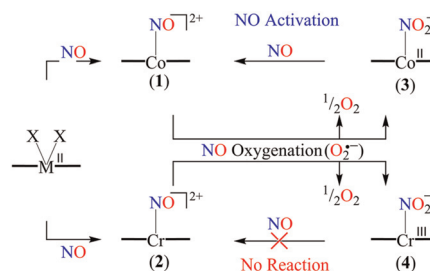
Deep red luminescent Ir(III) complexes



16492

Mechanistic insights into nitric oxide oxygenation (NOO) reactions of {CrNO}⁵ and {CoNO}³

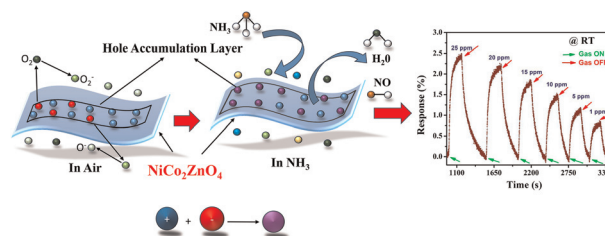
Akshaya Keerthi C. S., Sandip Das, Kulbir, Prabhakar Bhardwaj, Md Palashuddin Sk and Pankaj Kumar*



16500

A room-temperature gas sensor based on 2D Ni–Co–Zn ternary oxide nanoflakes for selective and sensitive ammonia detection

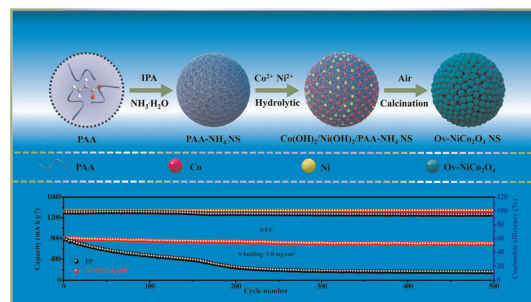
Sourav Karmakar, Avik Sett, Palash Chandra Maity, Gairik Karmakar, Rinky Sha,* Tarun Kanti Bhattacharyya and Indranil Lahiri



16513

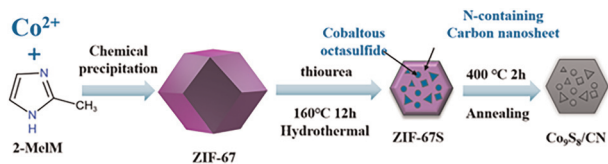
A well-dispersed O_v-NiCo₂O₄ nanosphere modified separator for Li–S batteries

Yumeng Gao, Siyu Liu, Jiudi Zhang, Xiaoyang Chen, Bing Han, Yali Wang, Jianhua Guo, Zhanshuang Jin,* Junjie Li and Xudong Meng*



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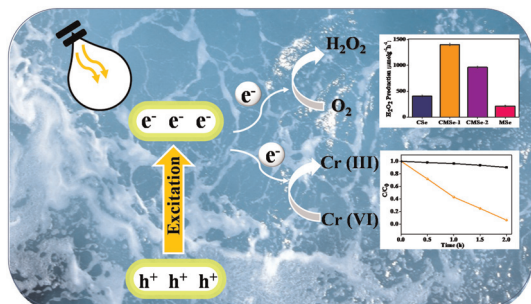
16519



Topochemical and phase transformation induced Co₉S₈/NC nanosheets for high-performance sodium-ion batteries

Yining Li, Shimei Wu, Chilin Liu, Zhiting Liu, Wei Yang, Yufei Zhang* and Haosen Fan*

16525



Compositionally engineered Cd–Mo–Se alloyed QDs toward photocatalytic H₂O₂ production and Cr(VI) reduction with a detailed mechanism and influencing parameters

Jyotirmayee Sahu, Sriram Mansingh, Bhagyashree Priyadarshini Mishra, Deeptimayee Prusty and Kulamani Parida*

