

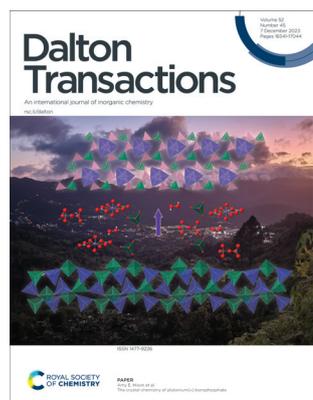
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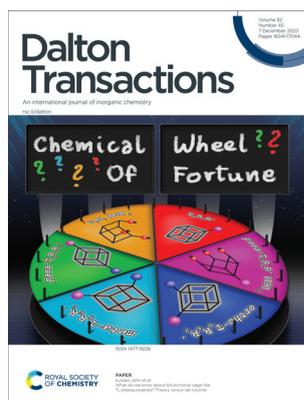
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Cover
See Amy E. Hixon *et al.*,
pp. 16601–16606.

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Inside cover
See Łukasz John *et al.*,
pp. 16607–16615.

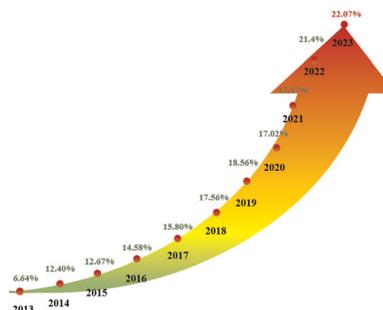
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PERSPECTIVE

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Advances in the research of carbon electrodes for perovskite solar cells

Yaoqiang Gan, Jian Sun, Pingchun Guo, Hedong Jiang, Jiake Li, Hua Zhu, Xueyun Fan, Liqun Huang and Yanxiang Wang*

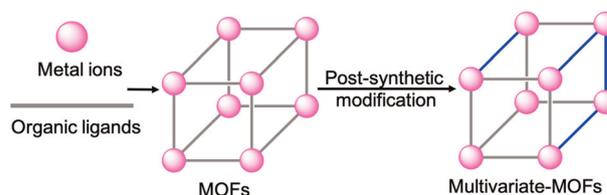


FRONTIER

16578

Multivariate metal–organic frameworks generated through post-synthetic modification: impact and future directions

Kyle T. Smith and Kyriakos C. Stylianou*



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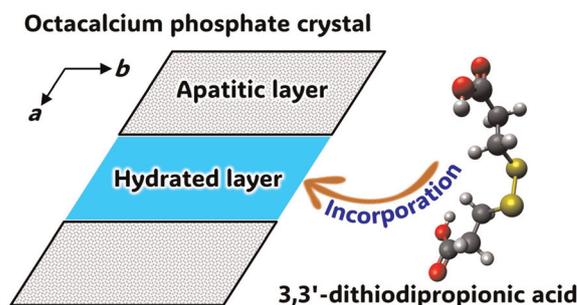


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Formation of octacalcium phosphate with incorporated dicarboxylate ions containing disulfide bonds

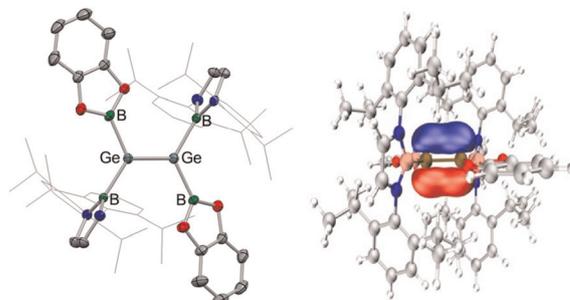
Taishi Yokoi,* Masahiro Watanabe, Fumiya Nakamura, Hiromi Kimura-Suda, Masaya Shimabukuro and Masakazu Kawashita



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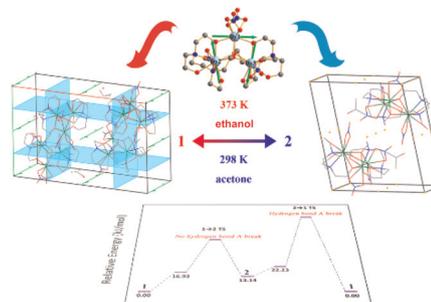
Xiongfei Zheng, Agamemnon E. Crumpton, Mathias A. Ellwanger and Simon Aldridge*



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Reversible single-crystal to single-crystal transformation between triangular single-molecule toroics

Lixi Feng, Yue Yang, Yu-Xia Wang,* Yizhen Zhao, Zhong-Yi Liu, Junzhuang Cong, Yi-Quan Zhang and Peng Cheng*

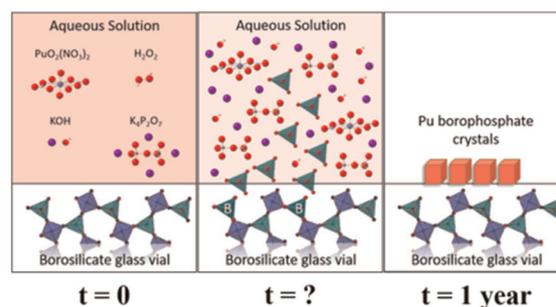


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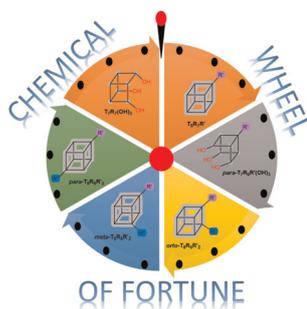
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The crystal chemistry of plutonium(IV) borophosphate

Ginger E. Sigmon, Nicole A. DiBlasi and Amy E. Hixon*



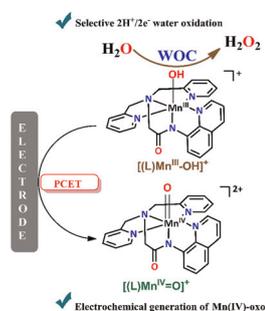
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Kamila Fuchs, Edyta Nizioł, Jolanta Ejfler, Wiktor Zierkiewicz, Anna Władyczyn and Łukasz John*

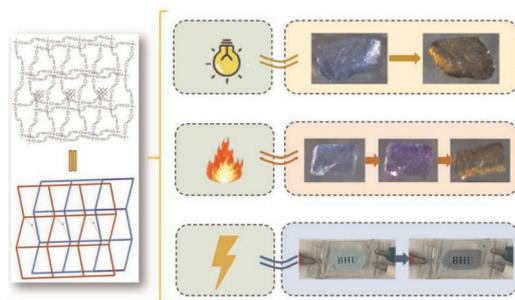
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Electrochemical generation of high-valent oxo-manganese complexes featuring an anionic N5 ligand and their role in O–O bond formation

Sachidul Biswas, Srijan Narayan Chowdhury, Panjo Lepcha, Subhankar Sutradhar, Abhishek Das, Tapan Kanti Paine,* Satadal Paul* and Achintesh N. Biswas*

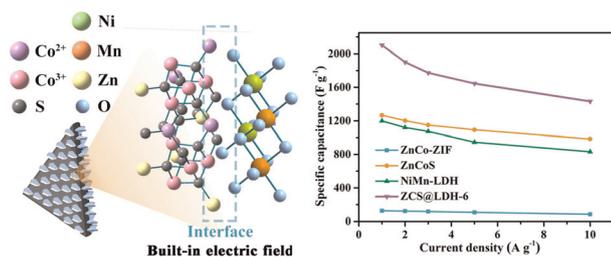
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A series of isopolymolybdate–viologen hybrids with photo-, thermo- and electro-chromic properties

Shuang Yu, Tao Liu, Jun Ying,* Aixiang Tian, Mengle Yang and Xiuli Wang*

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A heterostructure of NiMn-LDH nanosheets assembled on ZIF-L-derived ZnCoS hollow nanosheets with a built-in electric field enables boosted electrochemical energy storage

Tong Li, Xuanying Hu, Cui Yang,* Lei Han and Kai Tao*

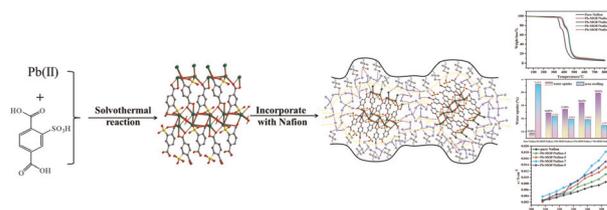


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A simple MOF constructed using Pb(II) with strong polarizing force: a filler of Nafion membrane to increase proton conductivity

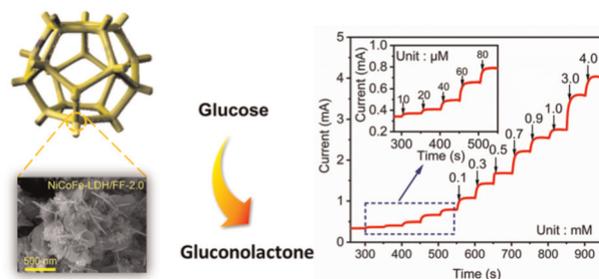
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Corrosion-assisted *in situ* growth of NiCoFe-layered double hydroxides on Fe foam for sensitive non-enzymatic glucose detection

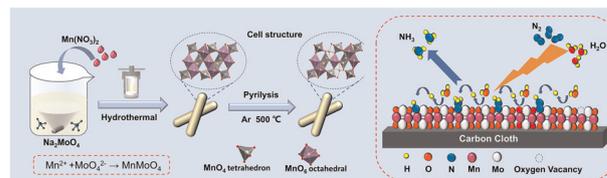
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A simple hydrothermal synthesis of an oxygen vacancy-rich MnMoO₄ rod-like material and its highly efficient electrocatalytic nitrogen reduction

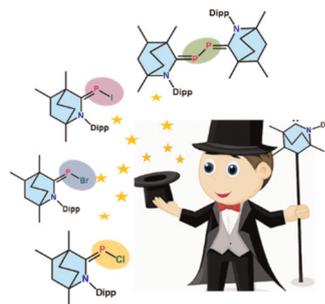
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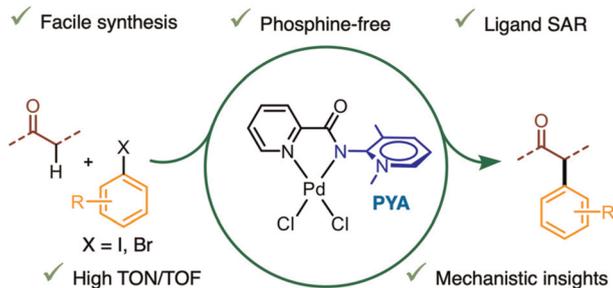
Bicyclic (alkyl)(amino)carbene (BICAAC)-supported phosphinidenes

Ritu Yadav, Bindusagar Das, Ashi Singh, Anmol, Ankita Sharma, Chinmoy Majumder and Subrata Kundu*



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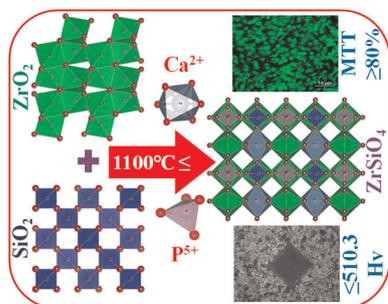
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Electronically flexible PYA ligands for efficient palladium-catalyzed α -arylation of ketones

Esaïe Reusser and Martin Albrecht*

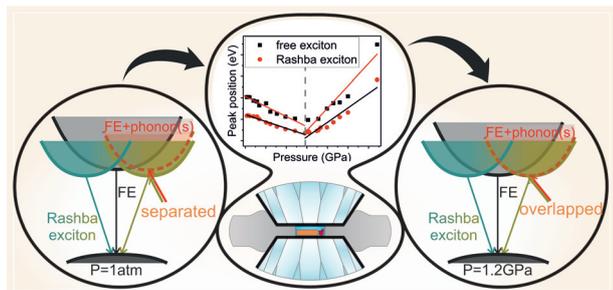
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Enhancing the zircon yield through the addition of calcium phosphates into ZrO_2 - SiO_2 binary systems: synthesis and structural, morphological, mechanical and *in vitro* analysis

Ezhilan Manivannan, Poornima Govindharaj, Somlee Gupta, Arunkumar Dhayalan and S. Kannan*

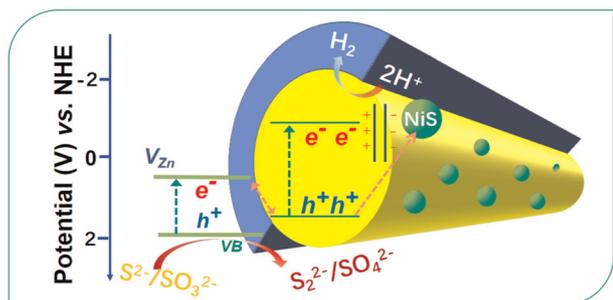
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Pressure influence on excitonic luminescence of CsPbBr_3 perovskite

Lev-Ivan Bulyk,* Taras Demkiv, Oleh Antonyak, Yaroslav M. Chornodolskyy, Roman Gamernyk, Andrzej Suchocki* and Anatolii Voloshinovskii

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Improving photocatalytic hydrogen production by switching charge kinetics from type-I to Z-scheme via defective engineering

Shuang Wang, Mengjie Yao, Yuye Cheng, Kai Ding, Minghao Dou, Hongyu Shao, Shuaitong Xue, Shenjie Li* and Yanyan Chen*

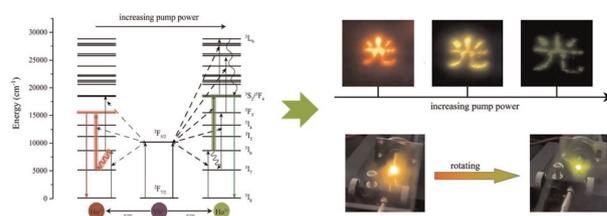


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Highly sensitive response of luminescence chromaticity to laser power in $\text{Lu}_2\text{Mo}_4\text{O}_{15}:\text{Yb}^{3+}/\text{Ho}^{3+}$ upconverting materials

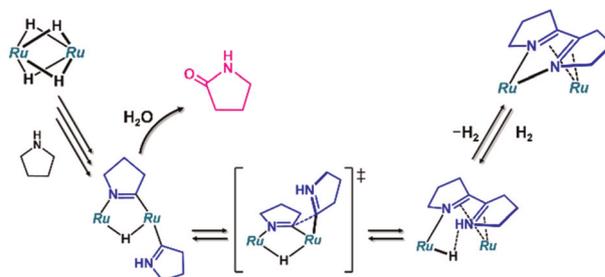
Zixun Zhou, Bin Zhu, Kuanxin Chen and Tao Pang*



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Synthesis of a diruthenium $\mu\text{-}\eta^4\text{-}\alpha$ -diimine complex *via* dehydrogenative coupling of cyclic amines and its role in dehydrogenative oxidation of pyrrolidine

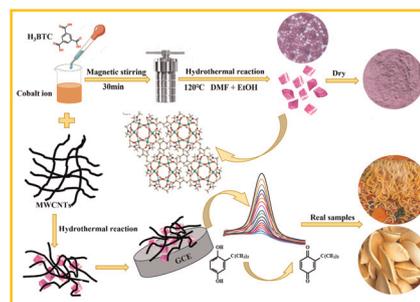
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Co-MOF@MWCNTs/GCE for the sensitive detection of TBHQ in food samples

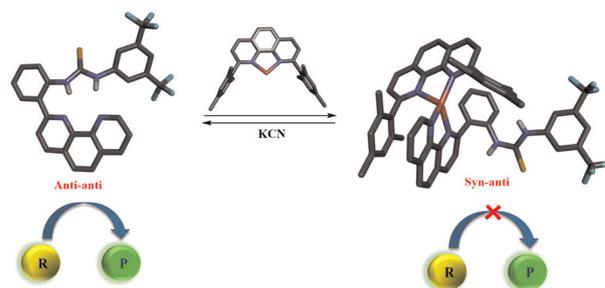
Junhui Feng, Chenxin Li, Wan-nai-yi Liu, Xiaoqin Min and Xiaoyun Lin*



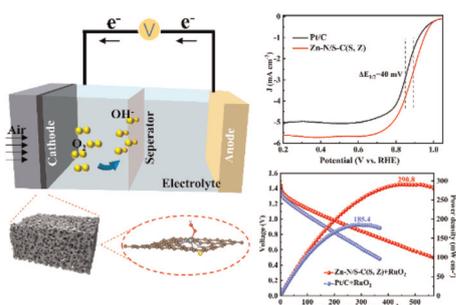
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Interplay between *anti-anti* and *syn-anti* conformations of thiourea modulating ON-OFF catalysis

Renitta Benny and Soumen De*



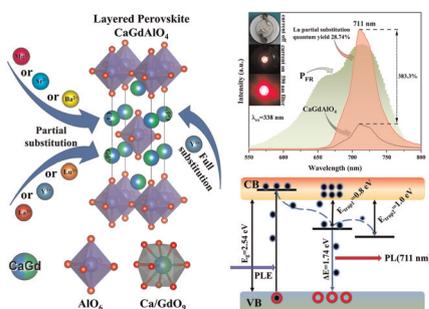
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Zn/N/S Co-doped hierarchical porous carbon as a high-efficiency oxygen reduction catalyst in Zn-air batteries

Mincong Liu, Jing Zhang, Guohua Ye, Yan Peng and Shiyong Guan*

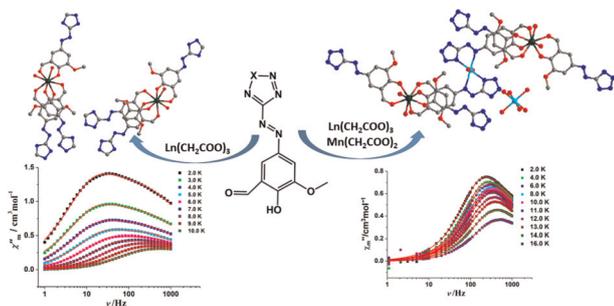
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Defect-induced deep red luminescence of CaGdAlO₄-type layered perovskites: multi-cationic sites partial/full substitution and application in pc-LED and plant lighting

Bowen Wang, Changshuai Gong, Xuyan Xue, Meiting Li, Qi Zhu, Xuejiao Wang* and Ji-Guang Li*

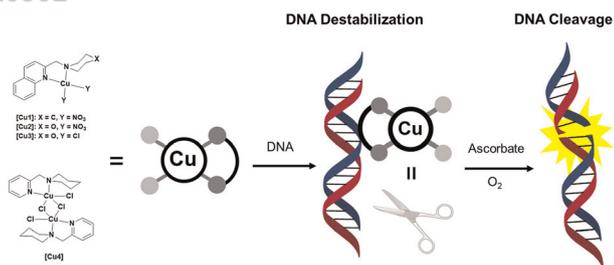
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Ln^{III}/Mn^{II}-Ln^{III} complexes derived from a salicylic azo dye ligand: synthesis, structures, magnetic and fluorescence properties

Xiaoman Kuang, Youhong Li, Meng Yang,* Wen Dong* and Jidong Leng*

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Novel Cu(II) complexes as DNA-destabilizing agents and their DNA nuclease activity

Hee Chang Kwon, Da Hyun Lee, Minyoung Yoon, Saira Nayab, Hyosun Lee* and Ji Hoon Han*

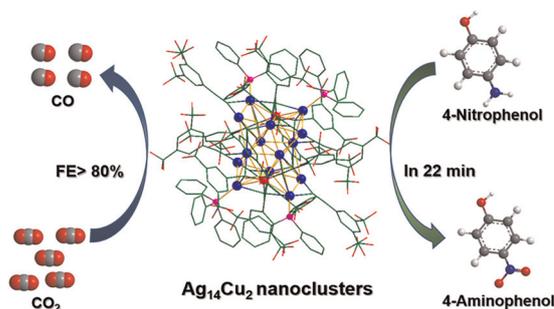


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Synthesis, structure anatomy, and catalytic properties of $\text{Ag}_{14}\text{Cu}_2$ nanoclusters co-protected by alkynyl and phosphine ligands

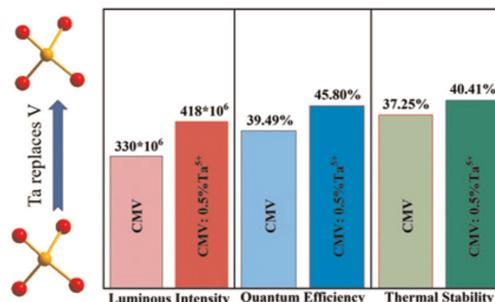
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Highly efficient rare-earth free vanadate phosphors for WLEDs

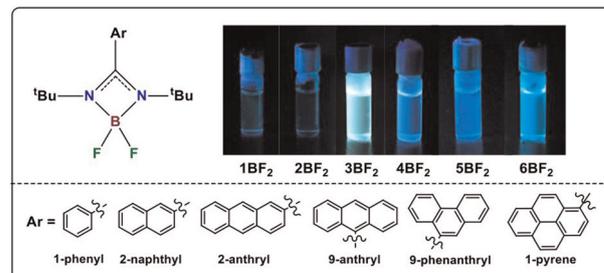
Zhaojiang Liu, Yujuan Dong,* Man Fu and Chuang Wang*



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Blue emissive amidinate-based tetra-coordinated boron compounds

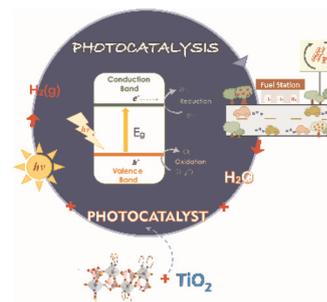
Ramkumar Kannan, Prakash Nayak, Ramar Arumugam, D. Krishna Rao, Kaustubh R. Mote, Anna Chandrasekar Murali, Krishnan Venkatasubbaiah* and Vadapalli Chandrasekhar*



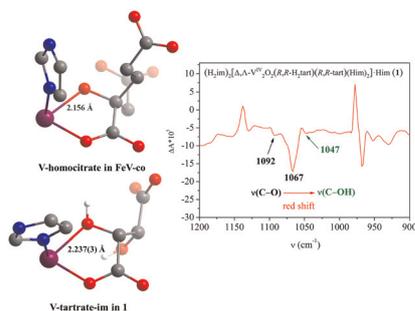
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Novel organically linked Zn^{II} hydrogenselenite coordination polymers: synthesis, characterization, and efficient TiO_2 photosensitization for enhanced photocatalytic hydrogen production

Andressa Lunardi, Tanize Bortolotto, Camila Nunes Cechin, Natália de Freitas Daudt, Melina de Azevedo Mello, Sailer S. dos Santos, Roberta Cargnelutti, Ernesto Schulz Lang and Bárbara Tirloni*



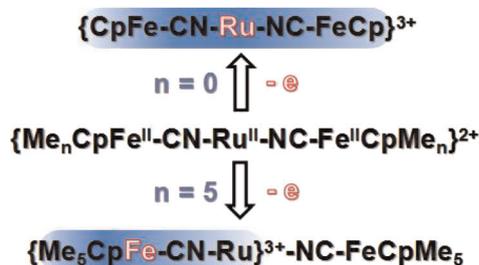
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Protonated and deprotonated vanadyl imidazole tartrates for the mimics of the vanadium coordination in the FeV-cofactor of V-nitrogenase

Shuang-Shuang Zhu, Zhen-Lang Xie, Lan Deng, Si-Yuan Wang, Lu-Bin Ni and Zhao-Hui Zhou*

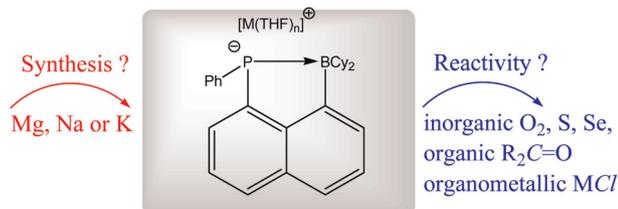
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Different delocalized ranges in mixed valence cyanido–metal-bridged Fe–Ru–Fe complexes controlled by terminal ligand substitution modification

Chen Zeng, Qing-Dou Xu, Xiao-Lin Liu, Sheng-Min Hu, Xin-Tao Wu and Tian-Lu Sheng*

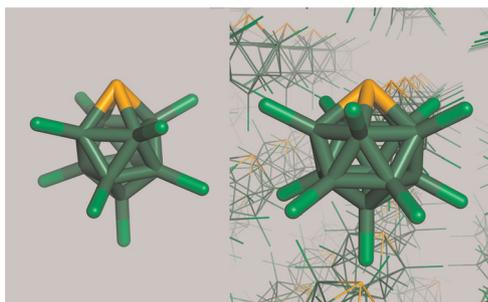
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B-substituted group 1 phosphides: synthesis and reactivity

Michal Aman, Libor Dostál, Aleš Růžička, Zdenka Růžicková and Roman Jambor*

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Chlorinated polyhedral selenaboranes revisited by joint experimental/computational efforts: the formation of closo-1-SeB₉Cl₉ and the crystal structure of closo-SeB₁₁Cl₁₁

Willi Keller,* Matthias Hofmann, Hubert Wadepohl, Markus Enders, Jindřich Fanfrlík and Drahomír Hnyk*

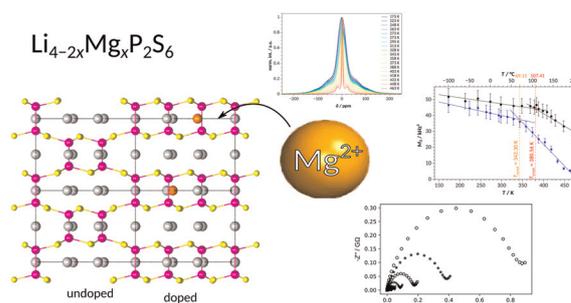


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Influence of Mg on the Li ion mobility in $\text{Li}_{4-2x}\text{Mg}_x\text{P}_2\text{S}_6$

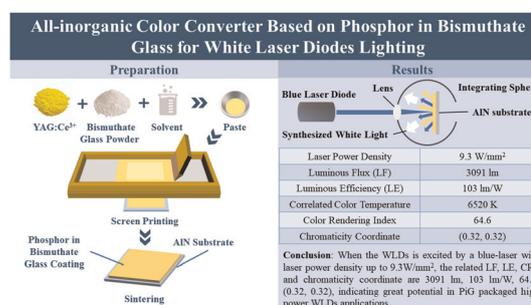
Sven Neuberger, Neeshma Mathew, Sheyi Clement Adediwura and Jörn Schmedt auf der Günne*



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All-inorganic color converter based on a phosphor in bismuthate glass for white laser diode lighting

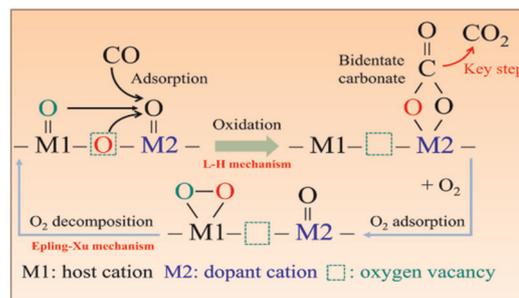
Hong Li,* Ruipeng Xu, Jie Yang and Dehua Xiong



16911

Revealing the intrinsic nature of Ni-, Mn-, and Y-doped CeO_2 catalysts with positive, additive, and negative effects on CO oxidation using *operando* DRIFTS-MS

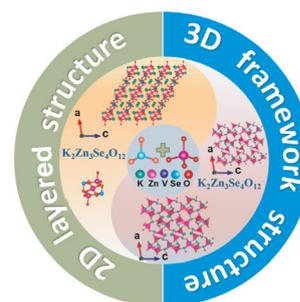
Shiyu Fang, Yan Sun, Jiacheng Xu, Tiantian Zhang, Zuliang Wu, Jing Li, Erhao Gao, Wei Wang, Jiali Zhu, Lianxin Dai, Weihua Liu, Buhe Zhang, Junwei Zhang and Shuiliang Yao*



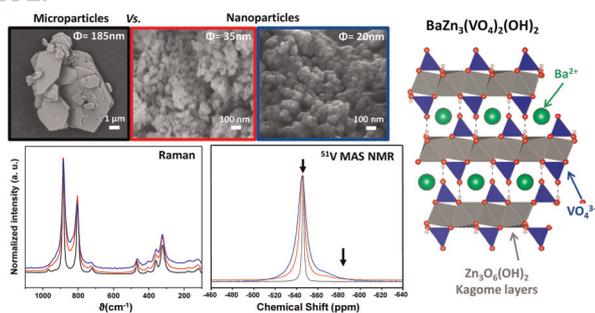
16920

Synthesis, structures and properties of two new selenite optical materials: $\text{K}_2\text{Zn}_3\text{Se}_4\text{O}_{12}$ and $\text{K}_4\text{Zn}_3\text{V}_4\text{Se}_2\text{O}_{19}$

Qiuyuan Feng, Zhixia Gao, Ketian Hou, Jialong Wang, Hong Du* and Qun Jing*



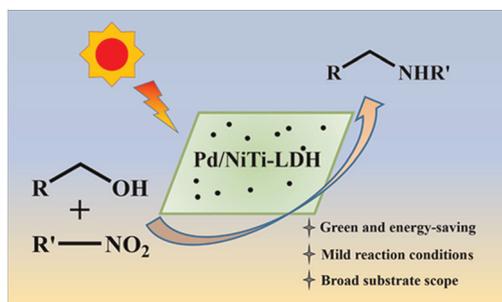
16927



Micro- and nanostructured layered-kagome zinc orthovanadate $\text{BaZn}_3(\text{VO}_4)_2(\text{OH})_2$

Bachchar Hadrane, Philippe Deniard, Nicolas Gautier, Michael Paris, Christophe Payen* and Rémi Dessapt*

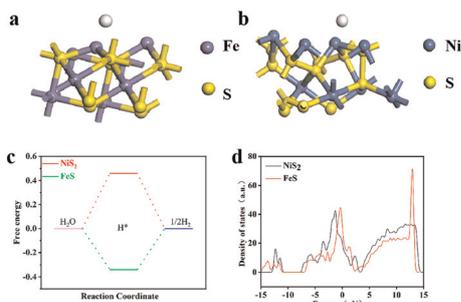
16935



Efficient one-pot syntheses of secondary amines from nitro aromatics and benzyl alcohols over Pd/NiTi-LDH under visible light

Jiaqi Wang, Jiaqi Jiang and Zhaohui Li*

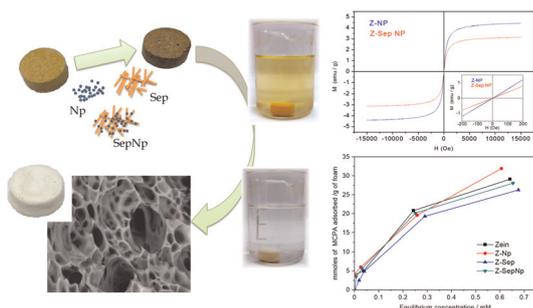
16943



Design of polymetallic sulfide $\text{NiS}_2@\text{Co}_4\text{S}_3@\text{FeS}$ as bifunctional catalyst for high efficiency seawater splitting

Mingshuai Chen, Guangping Wu, Xiaoqiang Du* and Xiaoshuang Zhang

16951



Magnetite-sepiolite nanoarchitectonics for improving zein-based bionanocomposite foams

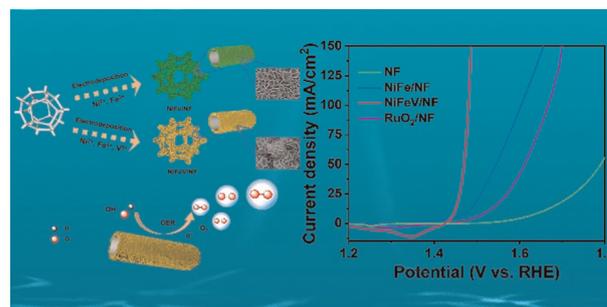
Ana C. S. Alcântara, Yorexis González-Alfaro, Margarita Darder, Eduardo Ruiz-Hitzky and Pilar Aranda*



16963

One-step electrodeposition of V-doped NiFe nanosheets for low-overpotential alkaline oxygen evolution

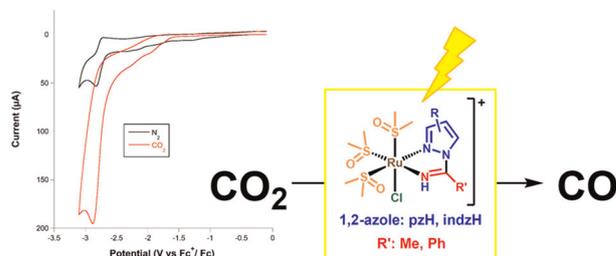
Qingxiang Kong, Junli Wang, Zhenwei Liu, Song Wu, Xiaoning Tong, Naixuan Zong, Bangfu Huang, Ruidong Xu* and Linjing Yang*



16974

1,2-Azolyamidino ruthenium(II) complexes with DMSO ligands: electro- and photocatalysts for CO₂ reduction

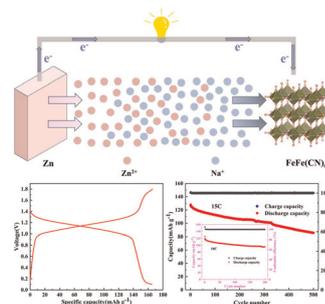
Murphy Jennings, Elena Cuéllar, Ariadna Rojo, Sergio Ferrero, Gabriel García-Herbosa, John Nganga, Alfredo M. Angeles-Boza, Jose M. Martín-Alvarez, Daniel Miguel and Fernando Villafañe*



16984

High specific capacity FeFe(CN)₆ as the cathode material in aqueous rechargeable zinc–sodium hybrid batteries

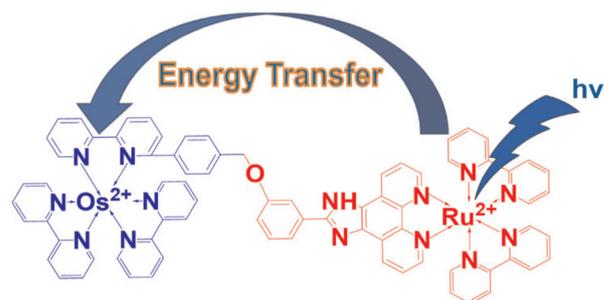
Chaoqiao Yang, Shuang Ding, Ya Zhao, Jinxia Zhou, Lin Li and Jiaxin Fan*



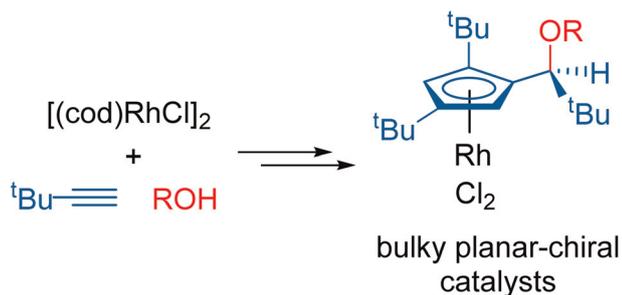
16993

Energy transfer in metal-exchange binuclear complexes covalently linked by asymmetric ligands

Weijun Dai, Shiwen Yu, Wen Xu, Ci Kong, Zining Liu, Hongju Yin, Chixian He, Jian-Jun Liu* and Feixiang Cheng*



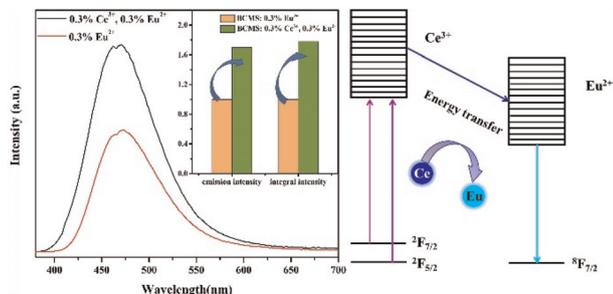
17005



Rhodium complexes with planar-chiral cyclopentadienyl ligands: synthesis from tert-butylacetylene and catalytic performance in C–H activation of arylhydroxamates

Andrey V. Kolos, Yulia V. Nelyubina, Evgeniya S. Podyacheva and Dmitry S. Perekalin*

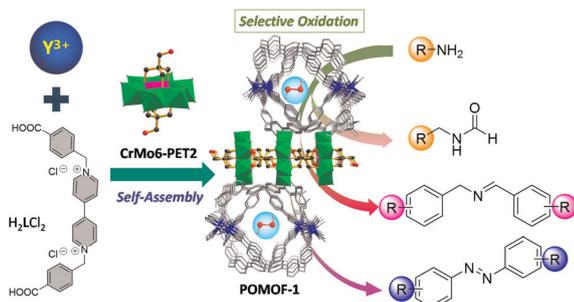
17011



Ce³⁺–Eu²⁺ Co-doped BaCa₁₃Mg₂(SiO₄)₈ cyan phosphor—ultra-high energy transfer efficiency for white light emitting diodes

Xiaoxi Ma, Shuo Yang, Chuqi Wang, Nana Jia, Chengyu Cai and Chuang Wang*

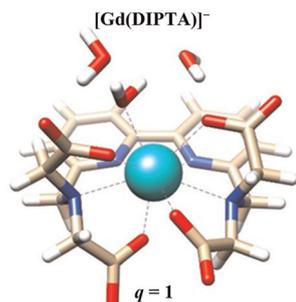
17019



A porous Anderson-type polyoxometalate-based metal–organic framework as a multifunctional platform for selective oxidative coupling with amines

Hong-Ru Tan, Xiang Zhou, Hanqi You, Qi Zheng, Sheng-Yin Zhao* and Weimin Xuan*

17030



Bipyridil-based chelators for Gd(III) complexation: kinetic, structural and relaxation properties

Szilvia Bunda, Norbert Lihí,* Zsófia Szaniszló, David Esteban-Gómez, Carlos Platas-Iglesias,* Mónika Kéri, Gábor Papp and Ferenc Krisztián Kálmán*



CORRECTION

17041

Correction: Synthesis of novel solid scale inhibitors based on silver tungstate loaded KIT-6 for scale removal from produced water: static and modeling evaluation

Heba M. Salem,* Mahmoud F. Mubarak, Asmaa A. Abdelrahman and R. Hosny*

