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IN THIS ISSUE

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Cover

See Yan Gao, Dawei Wen, Tao Hu *et al.*, pp. 5443–5452.

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Inside cover

See Suzanne Fery-Forgues *et al.*, pp. 5453–5465.

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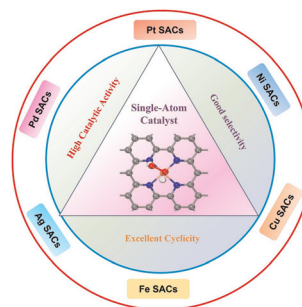
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PERSPECTIVE

5399

Single-atom catalysts for catalytic benzene oxidation to phenol: recent progress and future perspectives

Yitao Zhao,* Hongmei Cao, Lei Tao, Zhiyong Qiao and Changming Ding

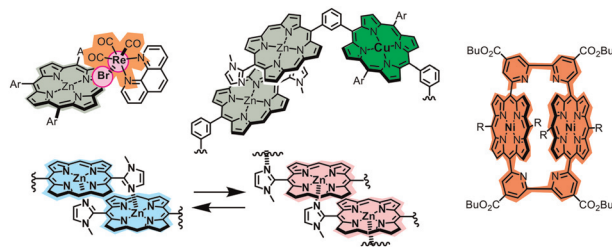


FRONTIER

5418

Metalloporphyrins: their multitalented nature as observed in multi-metal complex systems

Yusuke Kuramochi and Akiharu Satake*



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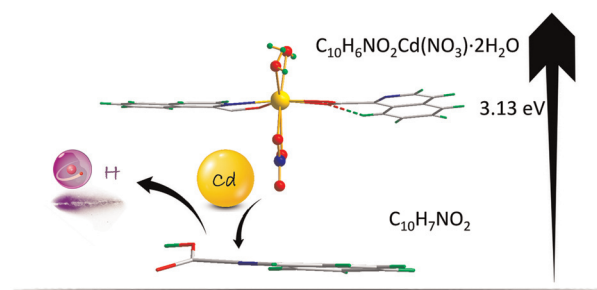


COMMUNICATIONS

5423

C₁₀H₆NO₂Cd(NO₃)₂·2H₂O: a birefringent crystal with an enlarged band-gap derived from covalent edge-sharing connection

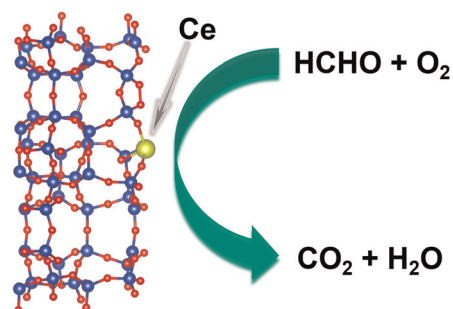
Yu Wang, Yaoguo Shen,* Weiqi Huang and Sangen Zhao*



5427

Low cost and highly dispersed Ce/Na-ZSM-5 catalysts close to atomic dispersion for enhancing formaldehyde oxidation

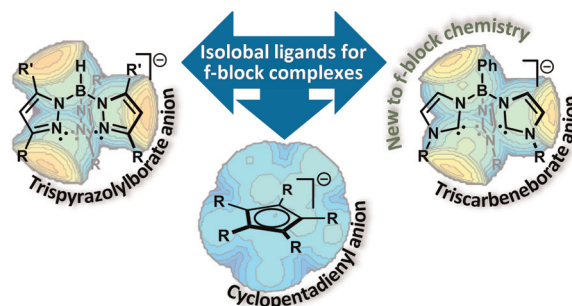
Zhihao Xu, Kai-Hang Ye,* Yuying Zheng, Zhiting Liang, Tongxin Tang, Ying Zhang, Xiaohui He* and Hongbing Ji*



5433

Tris(carbene)borates; alternatives to cyclopentadienyls in organolanthanide chemistry

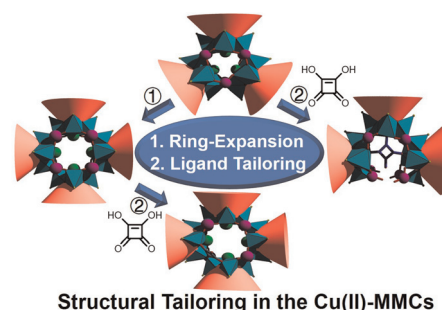
Amy N. Price, Ankur K. Gupta, Wibe A. de Jong and Polly L. Arnold*



5438

Atomically accurate structural tailoring of thiacalix[4]arene-protected copper(II)-based metallamacrocycles

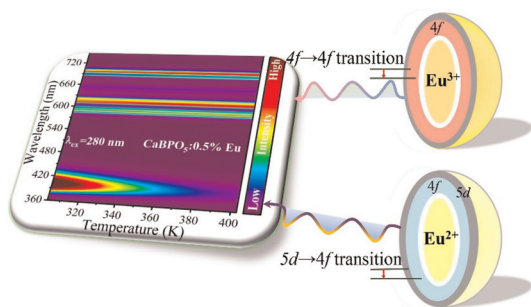
Wen-Lei Mu, Linlin Wu, Wei-Dong Yu,* Xiao-Yi Yi, Jun Yan and Chao Liu*



Structural Tailoring in the Cu(II)-MMCs



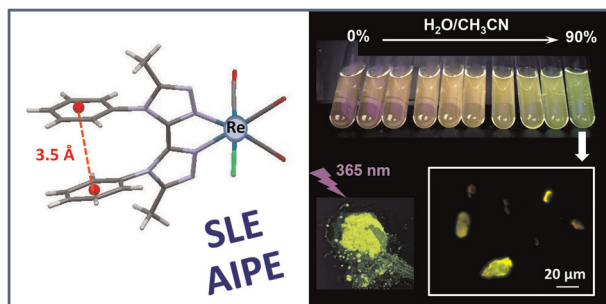
5443



Tetrahedrally coordinated rigid crystal structure enables partial self-reduction of mixed-valence europium for optical thermometric application

Zhichao Meng, Yan Gao,* Ji'an Song, Zelong Jiang, Wei Lv, Qingguang Zeng, Dawei Wen* and Tao Hu*

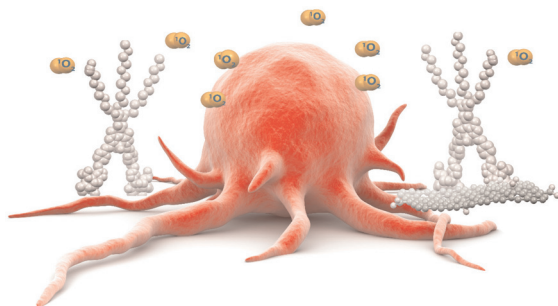
5453



Using a diphenyl-bi-(1,2,4-triazole) tricarbonylrhenium(i) complex with intramolecular π - π stacking interaction for efficient solid-state luminescence enhancement

Alexandre Poirot, Corinne Vanucci-Bacqué, Béatrice Delavaux-Nicot, Clarisse Meslien, Nathalie Saffon-Merceron, Charles-Louis Serpentine, Florence Bedos-Belval, Eric Benoist and Suzanne Fery-Forgues*

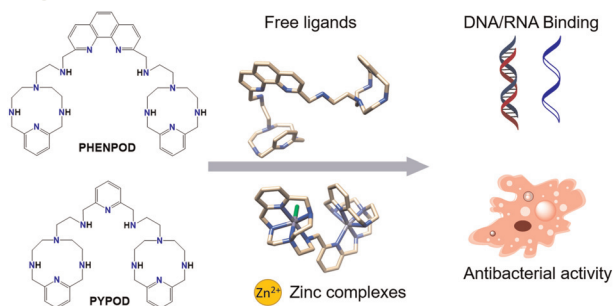
5466



BODIPY-GO nanocomposites decorated with a biocompatible branched ethylene glycol moiety for targeted PDT

Ezel Öztürk Gündüz, Rovshen Atajanov, M. Emre Gedik, Esra Tanriverdi Eçik, Gürcan Günaydın and Elif Okutan*

5478



Impact of the zinc complexation of polytopic polyaza ligands on the interaction with double and single stranded DNA/RNA and antimicrobial activity

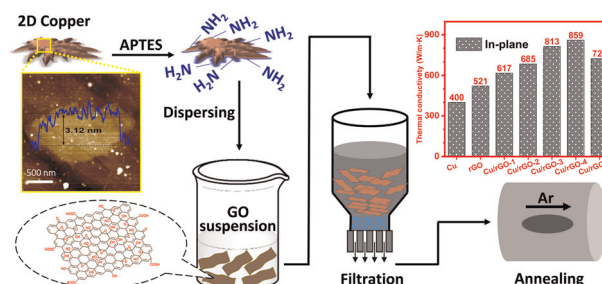
Jorge González-García, Dr.,* Carolina Galiana, Dr., M. Auxiliadora Dea-Ayuela, Prof., Marijana Radić Stojković, Dr., Sonia López-Molina, Dr., Cristina Galiana-Roselló, Dr., Salvador Blasco, Dr., Ivo Piantanida, Dr.* and Enrique García-España, Prof.*



5486

Enhanced electrically and thermally conductive free-standing graphene films with two-dimensional copper sheets as the catalyst and bridge

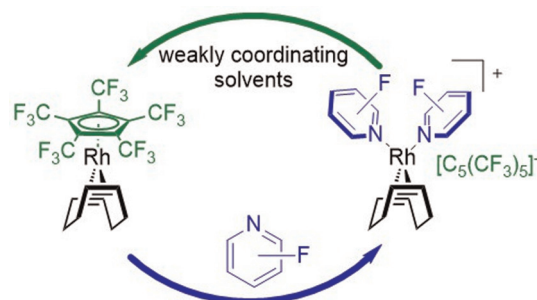
Huangqing Ye, Jiahui Chen, Yougen Hu, Yunming Li, Yu Wang,* Xian-Zhu Fu* and Rong Sun*



5496

Substitution lability of the perfluorinated Cp* ligand in Rh(I) complexes

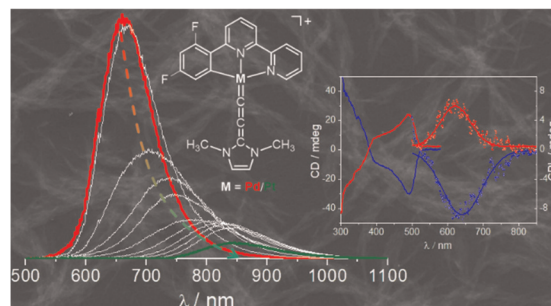
Joshua Parche, Susanne M. Rupf, Robin Sievers and Moritz Malischewski*



5503

Aggregation of phosphorescent Pd(II) and Pt(II) complexes with lipophilic counter-anions in non-polar solvents

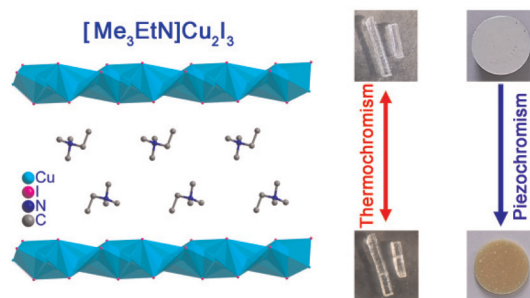
Ning Zhou, Chao Zou,* Sa Suo, Yuliang Liu, Jinqiang Lin, Xiaobao Zhang, Minglin Shi, Xiaoyong Chang and Wei Lu*



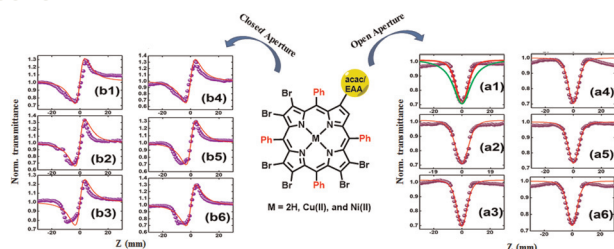
5514

A {Cu₂I₃}_∞ chain hybrid with two-step phase transition, switchable dielectrics, thermochromism and piezochromism

Qing-Qing Li, Xue-Wei Pan, Jin Zhang,* Lu Zhai and Xiao-Ming Ren*



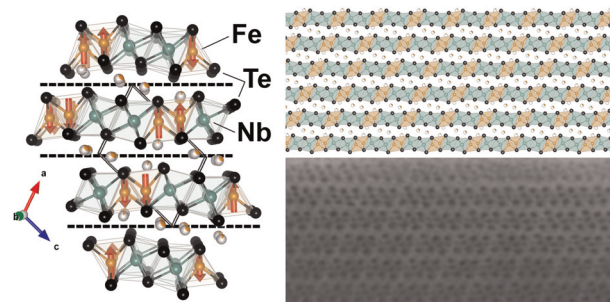
5523



Ethyl acetoacetate and acetylaceton appended hexabromo porphyrins: synthesis, spectral, electrochemical, and femtosecond third-order nonlinear optical studies

Renu Kumari Rohal, Dipanjan Banerjee, Tavleen Manchanda, Varusha Bhardwaj, Venugopal Rao Soma* and Muniappan Sankar*

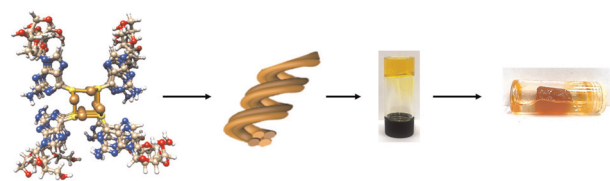
5534



Cleavable crystals, crystal structure, and magnetic properties of the $\text{NbFe}_{1+x}\text{Te}_3$ layered van der Waals telluride

Valeriy Yu. Verchenko,* Anna V. Stepanova, Alexey V. Bogach, Maria A. Kirsanova and Andrei V. Shevelkov

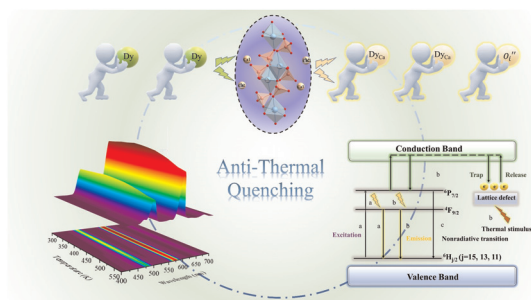
5545



Hierarchical self-assembly in an RNA-based coordination polymer hydrogel

Osama El-Zubir, Pablo Rojas Martinez, Gema Dura, Cameron Doherty, Fabio Cucinotta, Lewis E. Mackenzie, Robert Pal, Benjamin R. Horrocks and Andrew Houlton*

5552



Anti-thermal quenching phosphors based on the new phosphate host $\text{Ca}_{3.6}\text{In}_{3.6}(\text{PO}_4)_6$

Rong-Rong Wang, Jing Zhang, Yi-Jia Liu, Gui-Hua Li and Ge-Mei Cai*

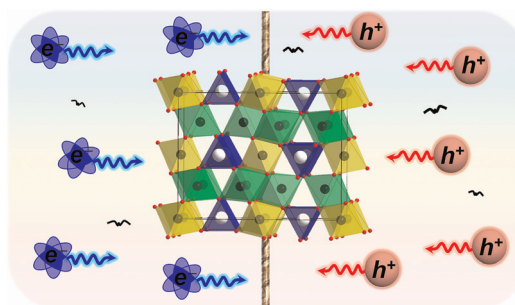


PAPERS

5563

Electronic properties of single-crystalline Fe₄O₅

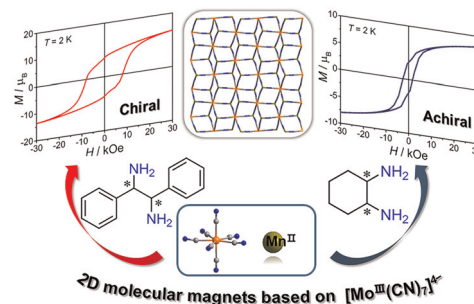
Sergey V. Ovsyannikov,* Alexander E. Karkin,
Igor V. Korobeinikov, Natalia V. Morozova, Maxim Bykov,
Elena Bykova and Leonid Dubrovinsky



5575

Three new Mn^{II}–[Mo^{III}(CN)₇]^{4–} molecular magnets constructed from chiral bidentate chelating ligands

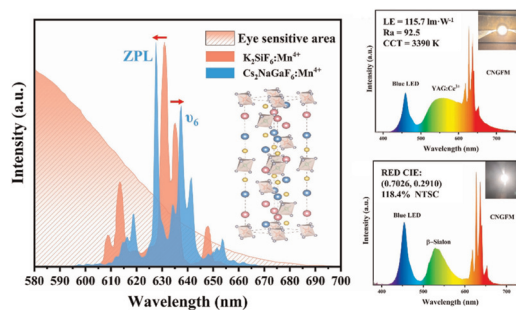
Fang-Xue Xu, Ying-Lian Li, Xiao-Qin Wei, Dong Shao,
Le Shi, Hai-Yan Wei* and Xin-Yi Wang*



5587

A novel red phosphor Cs₂NaGaF₆:Mn⁴⁺ with ultra-strong zero-phonon lines and long wavelength phonon sidebands for high-quality WLEDs

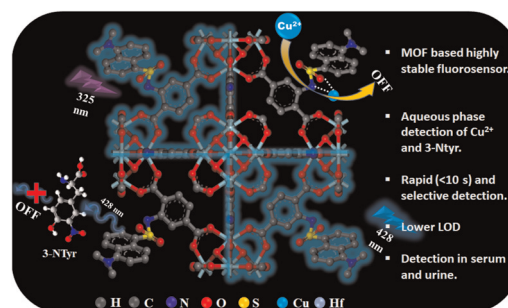
Zhijian Liao, Yan Li, Jiaying Zuo, Guang Chen,
Heng Liang, Shihao Wu, Jiaqing Peng* and Xinyu Ye*



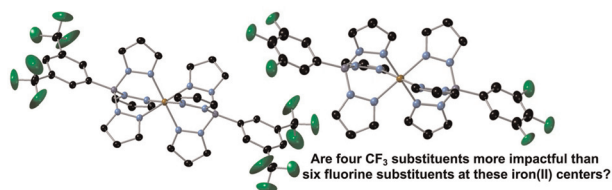
5597

A fluorophore anchored MOF for fast and sensitive sensing of Cu(II) and 3-nitrotyrosine in a physiological medium

Srijan Mukherjee, Kabita Sarkar and Shyam Biswas*



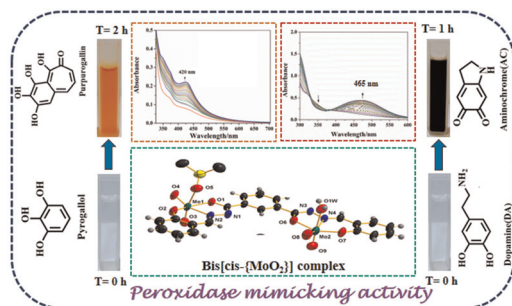
5606



Exploring opportunities for tuning phenyltris(pyrazol-1-yl)borate donation by varying the extent of phenyl substituent fluorination

Paul J. Fischer,* Charley B. Roe, Jasmine N. Stephenson, Rachel J. Dunscomb, Camille L. Carthy, Chip Nataro and Victor G. Young, Jr.

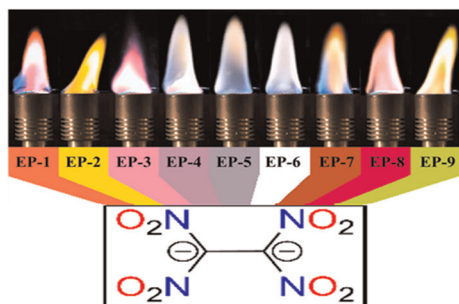
5616



New bis[*cis*-{MoO₂}] complexes with dihydrazone ligands: synthesis, characterization, theoretical investigation and their peroxidase mimicking activity

Lata Rana,* Dheeraj and Geeta Hundal

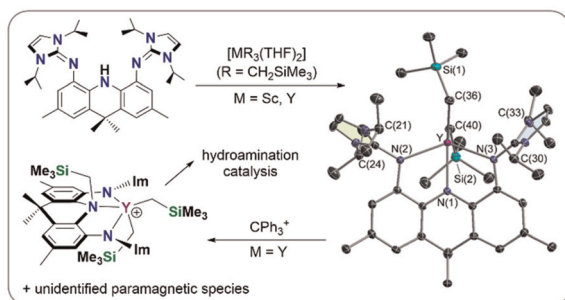
5632



Splicing oxygen-rich multidentate ligands and characteristic metals to construct flame colorants: abundant structures and attractive colors

Wen-Shuai Dong, Hao-Zheng Mei, Jun-Qing Yang, Wen-Li Cao, Yong Hu and Jian-Guo Zhang*

5642



Group 3 dialkyl complexes of a rigid monoanionic NNN-donor pincer ligand: synthesis, structures, unexpected reactivity with CPh₃⁺, and hydroamination catalysis

Aathith Vasanthakumar, Novan A. G. Gray, Christopher J. Franko, Maia C. Murphy and David J. H. Emslie*

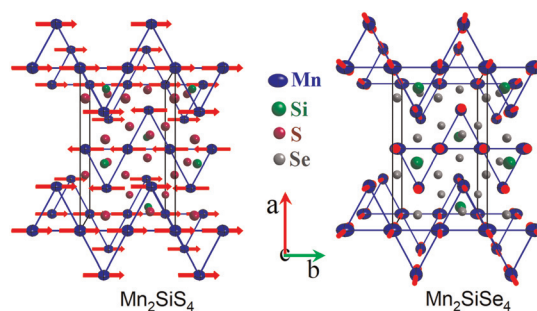


PAPERS

5652

Magnetic structures and excitations in sawtooth olivine chalcogenides Mn_2SiX_4 ($X = S, Se$)

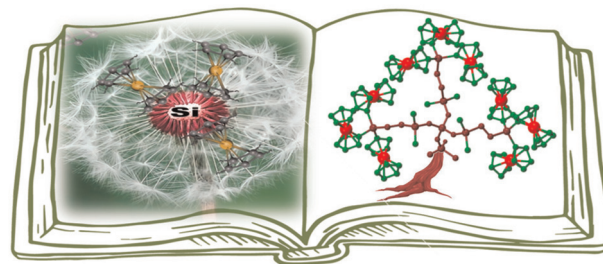
Hector C. Mandujano, Melaku Sisay Tafere, Naveen Kumar Chogondahalli Muniraju,* Tielyr D. Creason, Timothy M. McWhorter, Krzysztof Gofryk, Thomas W. Heitmann, Qiang Zhang, Bayram Saparov and Harikrishnan S. Nair*



5663

A convergent growth approach to electroactive ferrocene rich carbosilane- and siloxane-based dendrons, dendrimers, and dendronized polymers

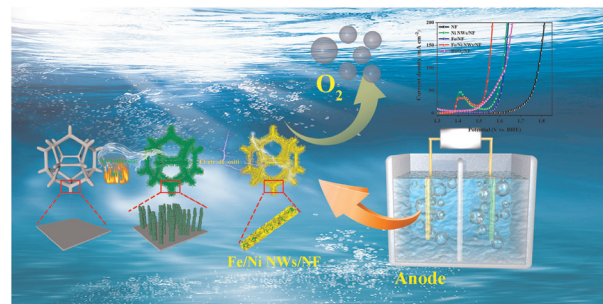
Sonia Bruña,* Josefina Perles and Isabel Cuadrado



5680

Three-dimensional nickel nanowires modified by amorphous Fe nanosheets as electrocatalysts for the oxygen evolution reaction

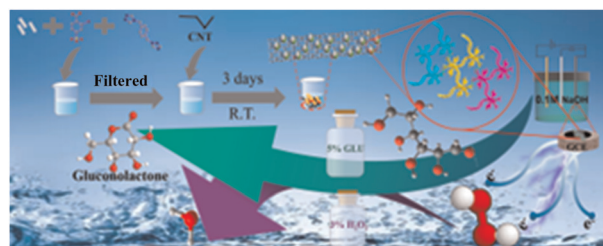
Guoxu Zhou, Denghe Gao, Yucheng Dong, Lan Wang,* Hui Wang, Xuyun Wang, Vladimir Linkov and Rongfang Wang*



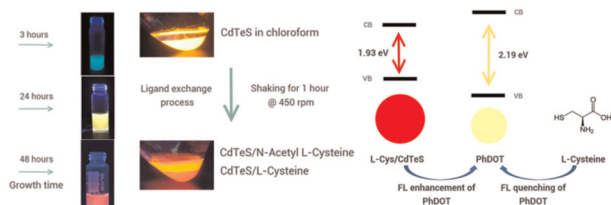
5687

Preparation, characterization, and electrochemical sensing performance of a novel pristine Cd-MOF and its composite with carbon nanotubes

Chen Yang, Qi Wang and Kou-Lin Zhang*



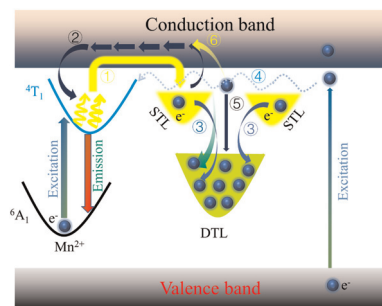
5704



Ultraprecise control over the photophysical properties of novel amino acid functionalized CdTeS quantum dots and their effect on the emission of yellow-emissive carbon dots

Sacide Melek Kestir, Sultan Şahin Keskin, Özge Ergüder, Nida Ük, Yurdanur Türker, Ilgın Nar, Levent Trabzon and Caner Ünlü*

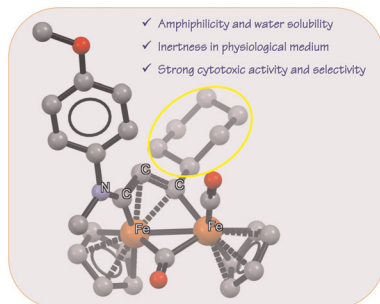
5715



Highly efficient yellow emission and abnormal thermal quenching in Mn²⁺-doped Rb₄CdCl₆

Dayu Huang, Qiuyun Ouyang, Youchao Kong, Bo Wang,* Ziyong Cheng, Abdulaziz A. Al Kheraif, Hongzhou Lian* and Jun Lin*

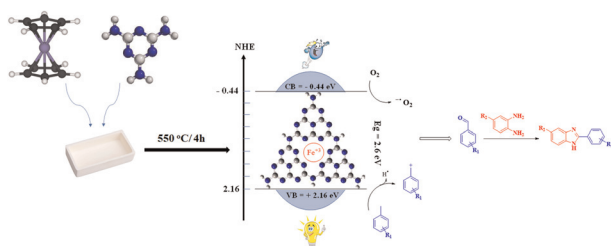
5724



The beneficial effect of cyclohexyl substituent on the *in vitro* anticancer activity of diiron vinyliminium complexes

Sara Benetti, Maria Dalla Pozza, Lorenzo Biancalana, Stefano Zacchini, Gilles Gasser* and Fabio Marchetti*

5742



Utilizing ferrocene for doping iron into graphitic carbon nitride (Fe^{III}/g-C₃N₄): an internal dual photocatalyst for tandem oxidation/cyclization of toluene to benzimidazoles under visible light conditions

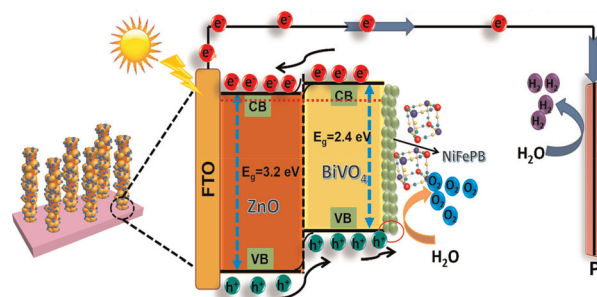
Mohammad Bashiri, Mona Hosseini-Sarvari,* Yanlong Gu and Dengyue Zheng



5760

NiFePB-modified ZnO/BiVO₄ photoanode for PEC water oxidation

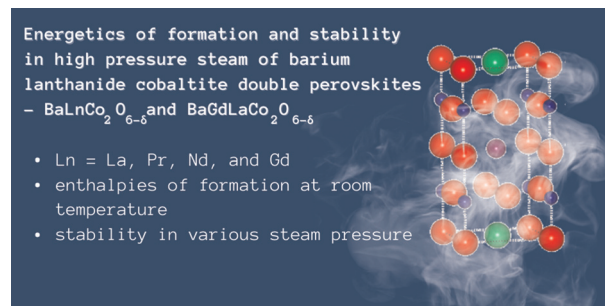
Shouli Bai, Shiyu Jia, Yingying Zhao,* Yongjun Feng,* Ruixian Luo, Dianqing Li* and Aifan Chen



5771

Energetics of formation and stability in high pressure steam of barium lanthanide cobaltite double perovskites

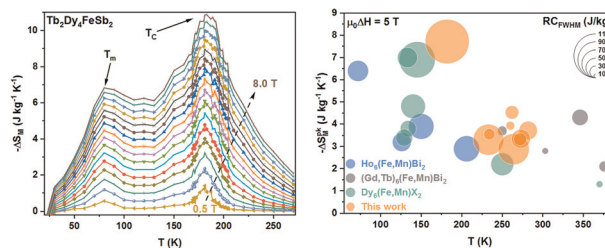
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5780

Selecting optimal R₆TX₂ intermetallics (R = Gd, Tb, Dy; T = Mn, Fe, Co, Ni; X = Sb, Te) for magnetic refrigeration

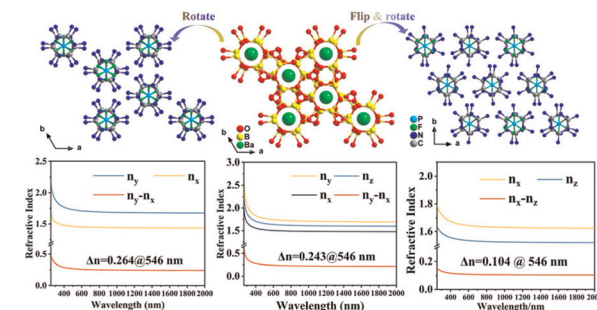
A. Herrero,* I. R. Aseguinolaza, A. Oleaga, A. J. Garcia-Adeva, E. Apiñaniz, A. V. Garshev, V. O. Yapaskurt and A. V. Morozkin



5798

Two UV optical crystals with strong optical anisotropy, large band gaps and an α -BBO type structure

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CORRECTION

5804

Correction: Mesoporous polyvalent Ni–Mn–Co–O composite nanowire arrays towards integrated anodes boosting high-properties lithium storage

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