

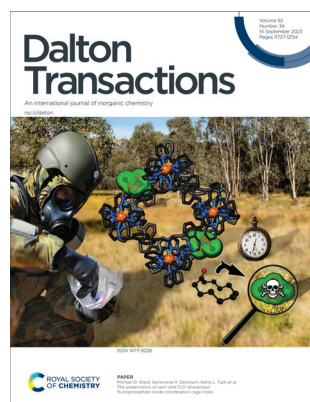
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IN THIS ISSUE

ISSN 1477-9226 CODEN DTARAF 52(34) 11737–12154 (2023)



Cover

See Michael D. Ward,
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Kellie L. Tuck *et al.*,
pp. 11802–11814.

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Inside cover

See Tosapol Maluangnont
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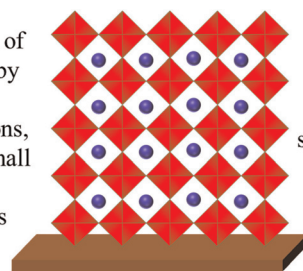
PERSPECTIVE

11750

Recent progress in the stabilization of low band-gap black-phase iodide perovskite solar cells

Mona Mittal, Rahul Garg and Atanu Jana*

Stabilization of
black phase by
metal ions,
organic cations,
polymers, small
molecules,
quantum dots



Long-term
stability, high
PCEs

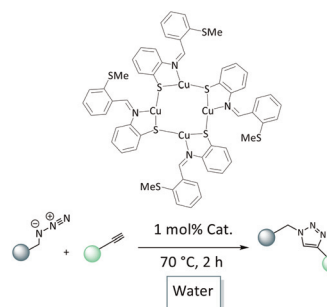
Black phase halide perovskite

COMMUNICATIONS

11768

Tetracopper(I) thiolate- and amido-(SNS) complexes and copper-catalyzed azide–alkyne cycloaddition in water

Atousa Khanzadeh, Saeed Ataie and R. Tom Baker*



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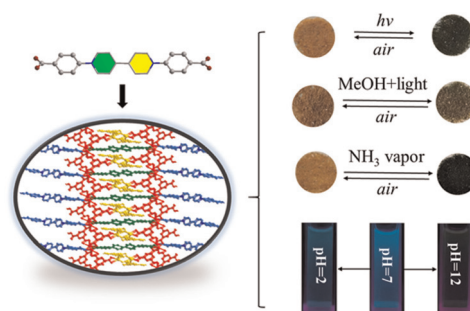


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11773

A viologen-based Cd(II) coordination polymer as a multifunctional platform for photochromism, chemochromism and a broad range of fluorescence pH sensing

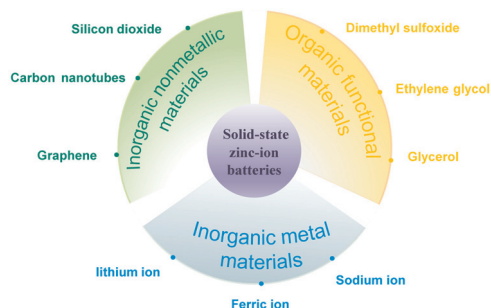
Shi Zhang, Kai Zhang, Shengliang Du, Shufan Chen, Qingfu Zhang, Xinyu Shi, Qinghua Meng, Yanli Gai* and Kecai Xiong*



11780

Recent progress in structural modification of polymer gel electrolytes for use in solid-state zinc-ion batteries

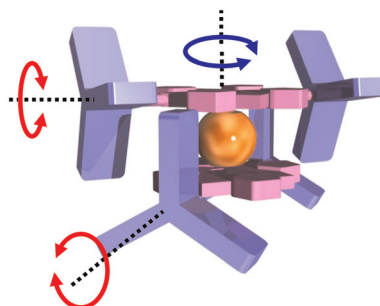
Yifan Li, Jingjing Yuan,* Yifan Qiao, Hui Xu, Zhihao Zhang, Wenyao Zhang, Guangyu He and Haiqun Chen*



11797

Multiply engaged molecular gears composed of a cerium(IV) double-decker of a triptycene-functionalized porphyrin

Toshio Nishino,* Masafumi Fukumura, Shohei Katao, Kazuma Yasuhara and Gwénaél Rapenne*

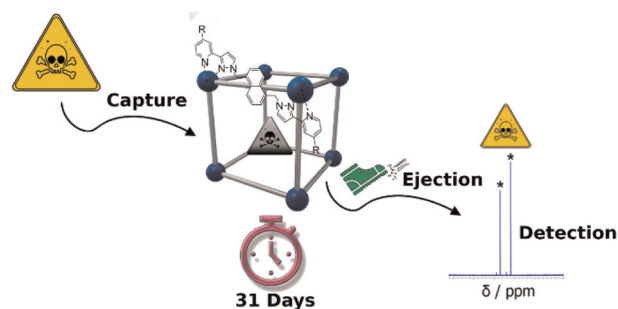


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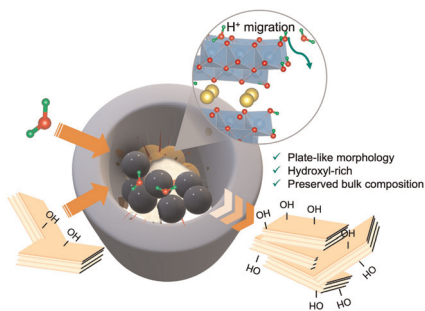
11802

The preservation of sarin and O,O'-diisopropyl fluorophosphate inside coordination cage hosts

Jack C. Dorrat, Rosemary J. Young, Christopher G. P. Taylor, Max B. Tipping, Andrew J. Blok, David R. Turner, Alasdair I. McKay, Simon Ovenden, Michael D. Ward,* Genevieve H. Dennison* and Kellie L. Tuck*



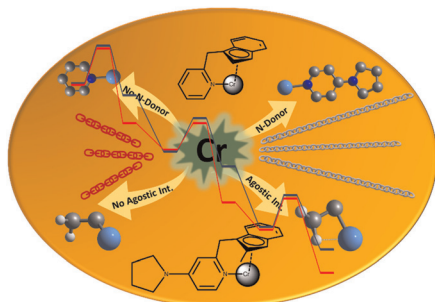
11815



Electrochemical and electrical characteristics of ball milled $\text{Cs}_2\text{Ti}_6\text{O}_{13}$ modified by the surface-to-bulk migration of hydroxyl groups

Tosapol Maluangnont,* Phieraya Pulphol, Kanisorn Klangvijit, Khemjirane Bowornthommatadsana, Narong Chanlek, Makoto Ogawa and Winadda Wongwiriyan

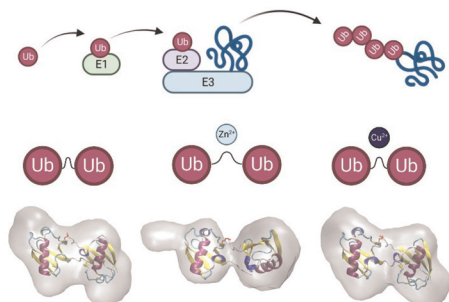
11826



The role of agostic interaction in the mechanism of ethylene polymerisation using Cr(III) half-sandwich complexes: What dictates the reactivity?

Thakur Rochak Kumar Rana, Abinash Swain and Gopalan Rajaraman*

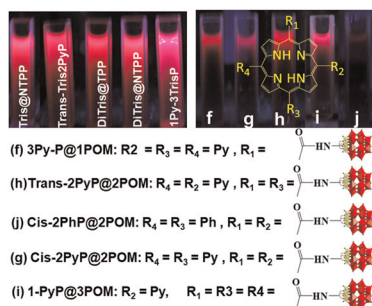
11835



Stretching the chains: the destabilizing impact of Cu^{2+} and Zn^{2+} ions on K48-linked diubiquitin

Vincenzo Mangini, Giulia Grasso, Benny Danilo Belviso, Michele F. M. Sciacca, Valeria Lanza, Rocco Caliendo* and Danilo Milardi*

11850



Designing diverse coordination modes for the covalent attachment of Wells–Dawson type polyoxometalate onto porphyrins

Hafiz Muhammad Asif, Hafiza Fareeha Ashfaq, Yunshan Zhou,* Lijuan Zhang,* Arshad Iqbal, Xin Hu and Farooq Khurum Shehzad

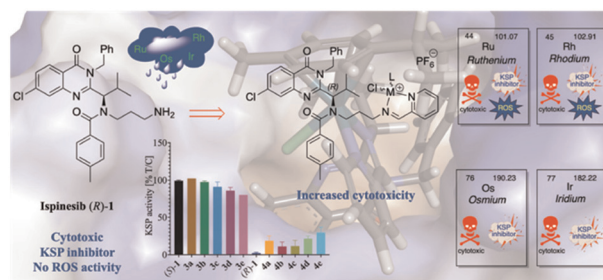


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11859

Organometallic Ru, Os, Rh and Ir half-sandwich conjugates of ispinesib – impact of the organometallic group on the antimitotic activity

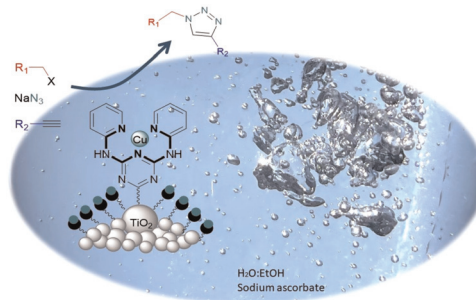
Michał Łomzik, Andrzej Błauz, Marta Głodek, Anna Makal, Daniel Tchoń, Daniel Moscoh Ayine-Tora, Christian Hartinger, Błażej Rychlik and Damian Plażuk*



11875

Sustainable catalysts for efficient triazole synthesis: an immobilized triazine-based copper-NNN pincer complex on TiO₂

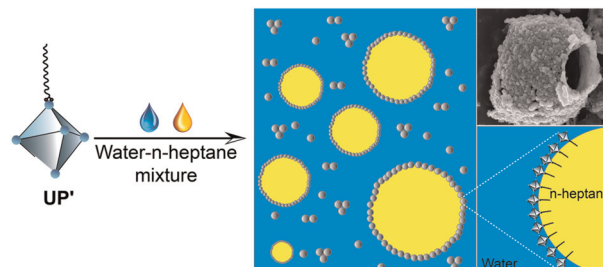
Mitra Esfandiari, Gholamhossein Mohammadnezhad,* Oluseun Akintola, Felix Otto, Torsten Fritz and Winfried Plass*



11886

Engineering linker defects in functionalized UiO-66 MOF nanoparticles for oil-in-water Pickering emulsion stabilization

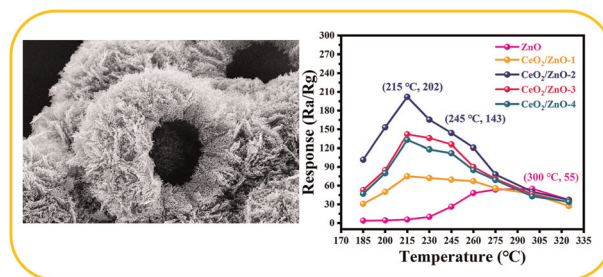
Mostakim SK, Salini Kar, Jayant K. Dewangan and Mithun Chowdhury*



11897

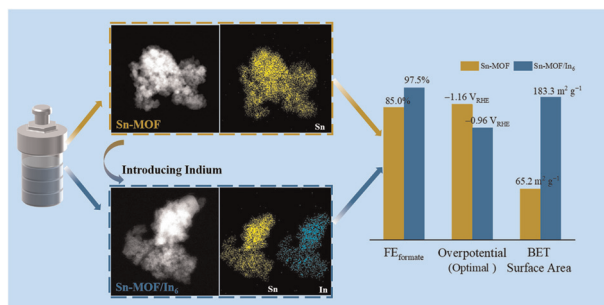
Facile and template-free fabrication of hierarchical coral spheres for acetone gas sensors

Ying Liu, Baoteng Li, Sailong Xu* and Ying Guo*



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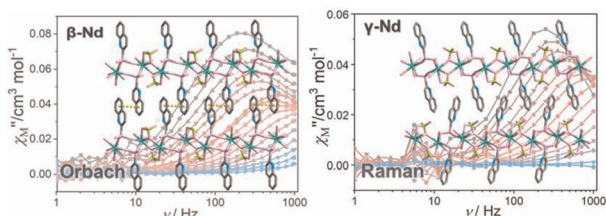
11904



In-modified Sn-MOFs with high catalytic performance in formate electroreduction from aqueous carbon dioxide

Jiaying Yan, Xuanyu Wang, Fanghua Ning, Jin Yi, Yuyu Liu* and Kai Wu*

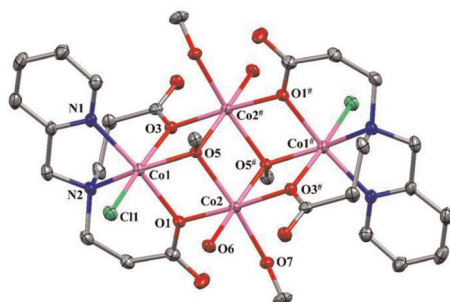
11913



Layered lanthanide phosphonates Ln(2-qph)(SO₄)(H₂O)₂ (Ln = La, Ce, Pr, Nd, Sm): polymorphism and magnetic properties

Xiu-Fang Ma, Dai Zeng, Chang Xu, Song-Song Bao and Li-Min Zheng*

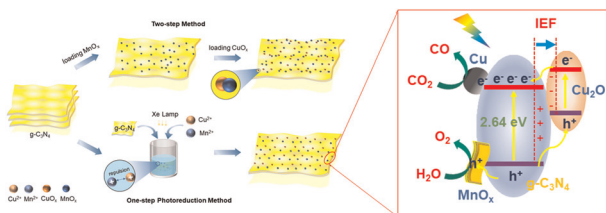
11922



A tetracobalt(II) cluster with a two vertex truncated dicubane topology endogenously supported by carboxylate-based (2-pyridyl)methylamine ligands: magneto-structural and DFT studies

Shashi Kant, Sayan Saha, Francesc Lloret, Joan Cano* and Rabindranath Mukherjee*

11934



One-step photodeposition of spatially separated CuO_x and MnO_x dual cocatalysts on g-C₃N₄ for enhanced CO₂ photoreduction

Fengyu Tian,* Xinyao Wu, Junhong Chen, Xuebiao Sun, Xuemin Yan* and Guangfu Liao*

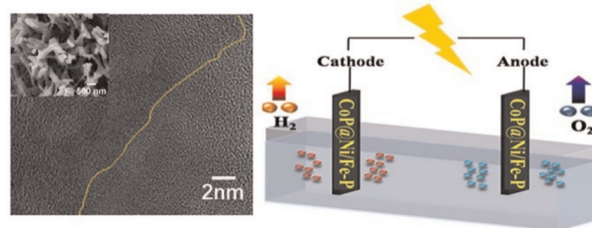


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11941

Crystalline/amorphous composite interface of CoP@Ni/Fe–P as a boosted electrocatalyst for full water splitting

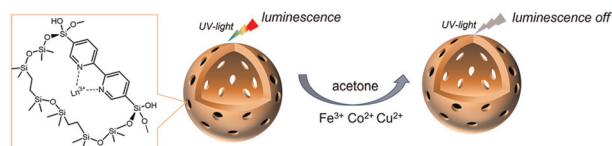
Lijuan Yu, Peilin Wu, Tenghui Tian, Xingquan He, Meihong Fan and Lili Cui*



11949

Lanthanide-grafted hollow bipyridine-based periodic mesoporous organosilicas as chemical sensors

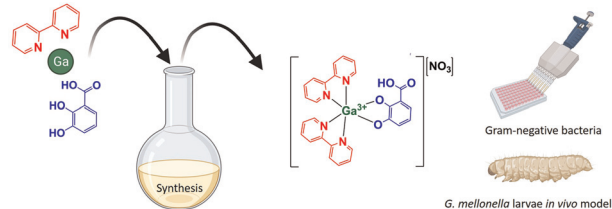
Wanlu Liu, Chunhui Liu, Luca Pilia, Hongliang Zhang, Pascal Van Der Voort, Anna M. Kaczmarek and Rik Van Deun*



11958

Synthesis, characterisation and antibacterial activity of novel Ga(III) polypyridyl catecholate complexes

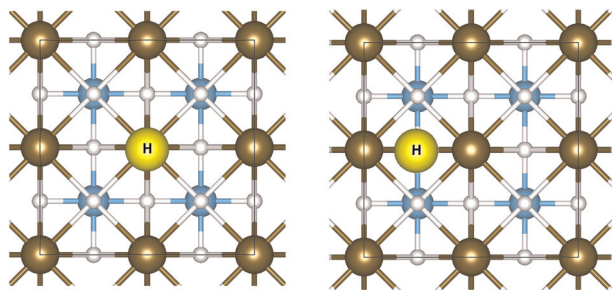
Lewis More O'Ferrall, Magdalena Piatek, Brendan Twamley, Kevin Kavanagh, Christine O'Connor* and Darren M. Griffith*



11965

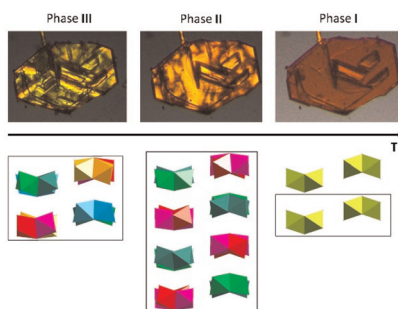
Electronic and electrocatalytic properties of PbTiO₃: unveiling the effect of strain and oxygen vacancy

L. Bendaoudi, T. Ouahrani,* A. Daouli, B. Rerbal, R. M. Boufatah, Á. Morales-García, R. Franco, Z. Bedrane, M. Badawi and D. Errandonea*



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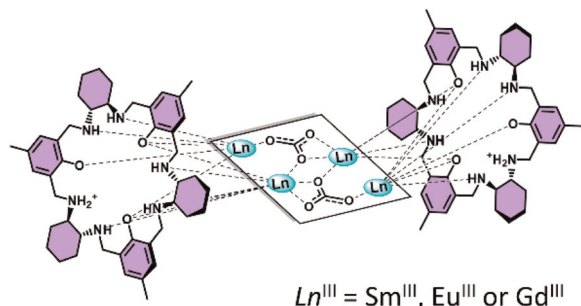
11981



Temperature symmetry breaking and properties of lead-free organic–inorganic hybrids: bismuth(III) iodide and antimony(III) iodide: $(\text{S}(\text{CH}_3)_3)_3[\text{Bi}_2\text{I}_9]$ and $(\text{S}(\text{CH}_3)_3)_3[\text{Sb}_2\text{I}_9]$

Przemysław Szklarz,* Anna Gągor, Ryszard Jakubas, Wojciech Medycki and Grażyna Bator

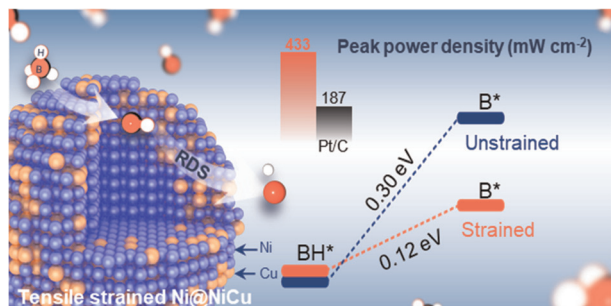
11992



Solid state structures and solution behaviour of tetranuclear lanthanide(III) carbonate-bridged coordination compounds of chiral 3 + 3 amine macrocycle

Karol Wydra,* Vasyl Kinzhybalo, Jerzy Lisowski,*
Karol Wydra,* Vasyl Kinzhybalo and Jerzy Lisowski*

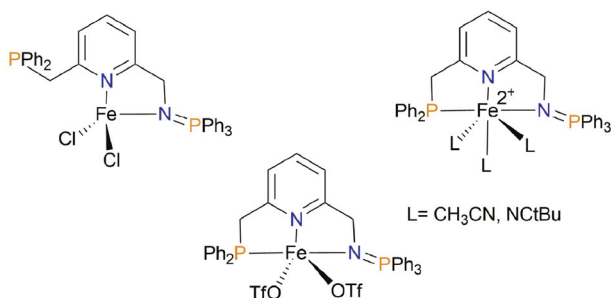
12002



Lattice strain controlled Ni@NiCu efficient anode catalysts for direct borohydride fuel cells

Bihao Hu, Yuxin Xie, Ying Yang, Jiazhi Meng, Jinliang Cai, Changguo Chen, Danmei Yu* and Xiaoyuan Zhou*

12010



Fe^{II} complexes supported by an iminophosphorane ligand: synthesis and reactivity

Thibault Tannoux, Louis Mazaud, Thibault Cheisson, Nicolas Casaretto and Audrey Auffrant*

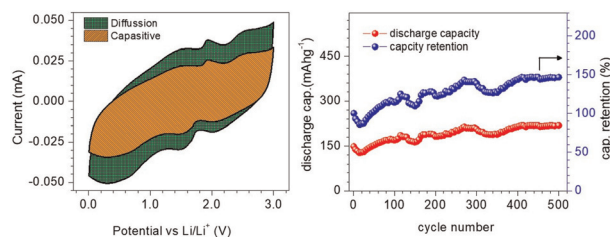


PAPERS

12020

Highly durable and sustainable copper–iron–tin–sulphide ($\text{Cu}_2\text{FeSnS}_4$) anode for Li-ion batteries: effect of operating temperatures

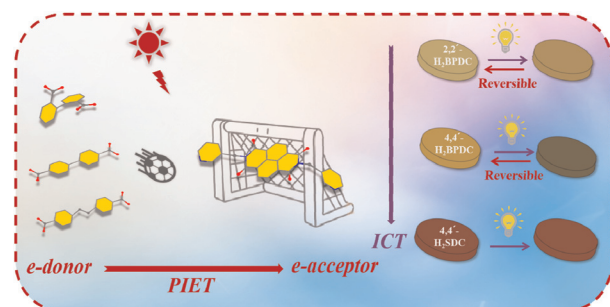
Akbar I. Inamdar,* Amol S. Salunke, Bo Hou, Nabeen K. Shrestha, Hyunsik Im* and Hyungsang Kim*



12030

The effect of conjugation degree of aromatic carboxylic acids on electronic and photo-responsive behaviors of naphthalenediimide-based coordination polymers

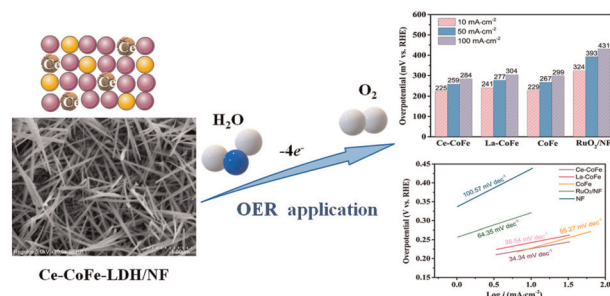
Ming Kang, Bohong Gao, Shimin Zhang, Pengfei Hao,* Gaopeng Li, Junju Shen and Yunlong Fu*



12038

3D nanostructured Ce-doped CoFe-LDH/NF self-supported catalyst for high-performance OER

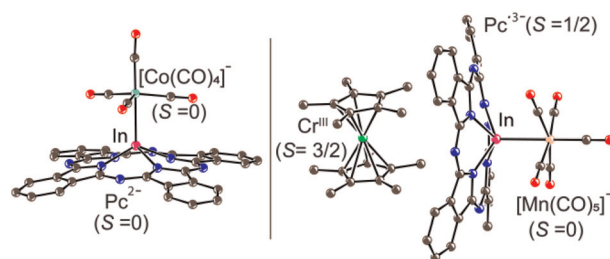
Lu Wang,* Yi Liu, Xiaoheng Liu and Wei Chen*



12049

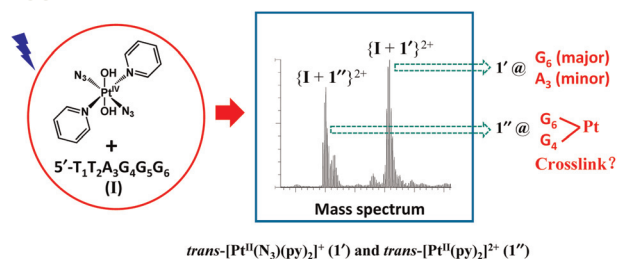
Bimetallic neutral and anionic complexes of transition metal (Co, Mn) carbonyls with indium(III) phthalocyanine

Maxim A. Faraonov,* Evgeniya I. Yudanova, Alexey V. Kuzmin, Ilya A. Yakushev, Salavat S. Khasanov, Akihiro Otsuka, Hideki Yamochi, Hiroshi Kitagawa and Dmitri V. Konarev*



PAPERS

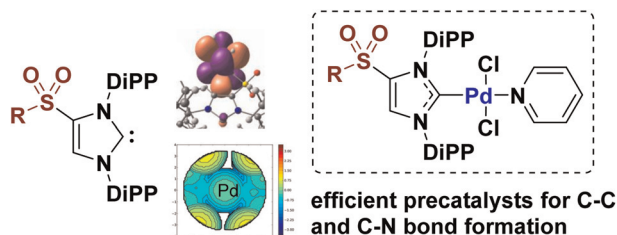
12057



Reaction of human telomeric unit TTAGGG and a photoactivatable Pt(IV) anticancer prodrug

Jiafan Lin, Jishuai Zhang, Ziqi Ma, Xiaoqin Wu, Fuyi Wang, Yao Zhao,* Kui Wu* and Yi Liu*

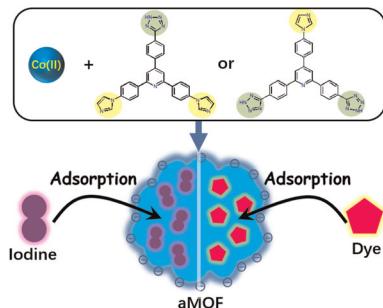
12067



New class of RSO₂-NHC ligands and Pd/RSO₂-NHC complexes with tailored electronic properties and high performance in catalytic C–C and C–N bonds formation

Dmitry V. Pasyukov, Maxim A. Shevchenko, Alexander V. Astakhov, Mikhail E. Minyaev, Yu Zhang, Victor M. Chernyshev* and Valentine P. Ananikov*

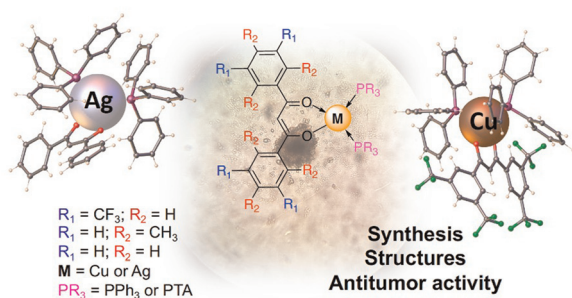
12087



Porous amorphous metal–organic frameworks based on heterotopic triangular ligands for iodine and high-capacity dye adsorption

Ying Feng, Liang-Hua Wu, Chu-Hong Zhang, Bing-Xun Zhou, Sheng-Run Zheng,* Wei-Guang Zhang,* Song-Liang Cai and Jun Fan

12098



Synthesis and cytotoxicity studies of Cu(I) and Ag(I) complexes based on sterically hindered β-diketonates with different degrees of fluorination

Maura Pellei,* Jo' Del Gobbo, Miriam Caviglia, Deepika V. Karade, Valentina Gandin, Cristina Marzano,* Anurag Noonikara Poyil, H. V. Rasika Dias* and Carlo Santini

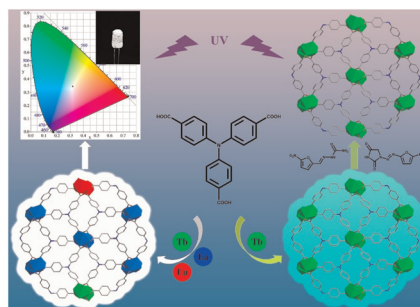


PAPERS

12112

Single-phase white light material and antibiotic detection of lanthanide metal–organic frameworks

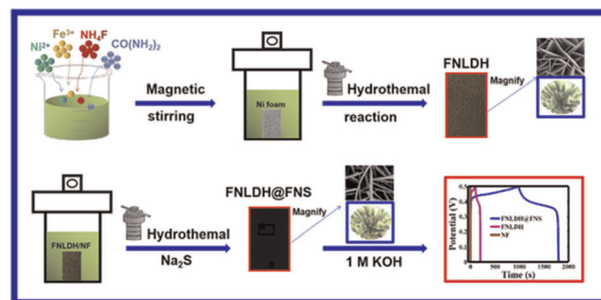
Shunan Ding, Qi Zhou, Guojian Ren,* Yonghang Yang, Cong Wang, Guang Che, MeiLing Li, Danfeng He and Qinhe Pan*



12119

Porous nanosheet–nanosphere@nanosheet FeNi₂-LDH@FeNi₂S₄ core–shell heterostructures for asymmetric supercapacitors

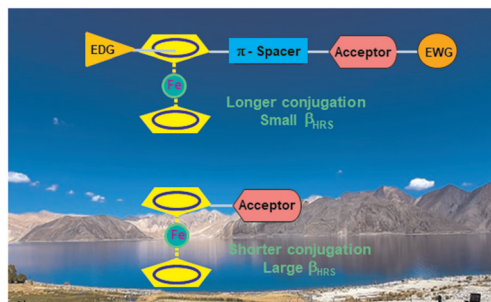
Xiaoqin Min, Zhitao Bo, ZhiKun Xu, Junhui Feng, Xiaoyun Lin* and Yongnian Ni



12130

Size economy and first hyperpolarizability: synthesis and nonlinear optical behavior of ferrocene-based donor–acceptor chromophores lacking π -linkers

Pawan Kumar, Yovan de Coene, Koen Clays, Paramjit Kaur* and Kamaljit Singh*



12143

Defective MOF-74 with ancillary open metal sites for the enhanced adsorption of chemical warfare agent simulants

Sujeong Lee, Sojin Oh, Gihyun Lee and Moonhyun Oh*

