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Cover
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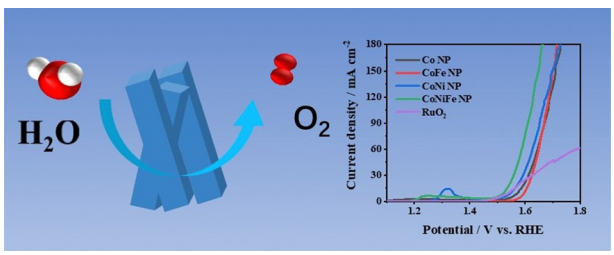
COMMUNICATION

18532

Facile synthesis of a medium-entropy CoNiFe subacetate nanoprism for high efficiency oxygen evolution reaction

Junyan Chen, Junlong Xu, Yingying Yao, Siwen Cui* and Siru Chen*

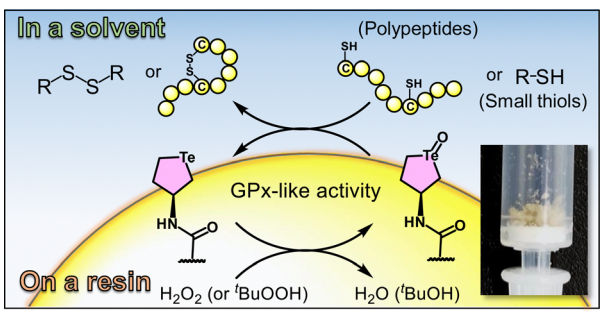


PAPERS

18537

Resin-supported cyclic telluride as a heterogeneous promoter of disulfide formation under solid–liquid biphasic conditions

Yuya Nishizawa, Yuri Satoh, Osamu Kanie and Kenta Arai*



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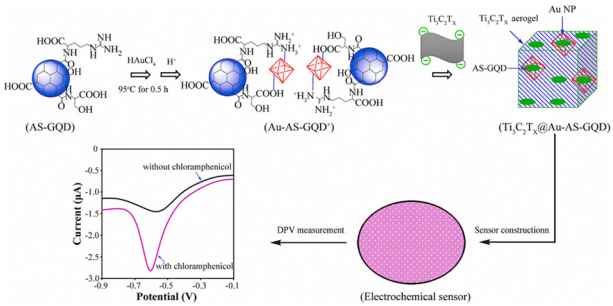
18547

Facile synthesis of $Ti_3C_2T_x$@gold nanoparticle-arginine and serine-functionalized graphene quantum dot aerogel for electrochemical detection of chloramphenicol

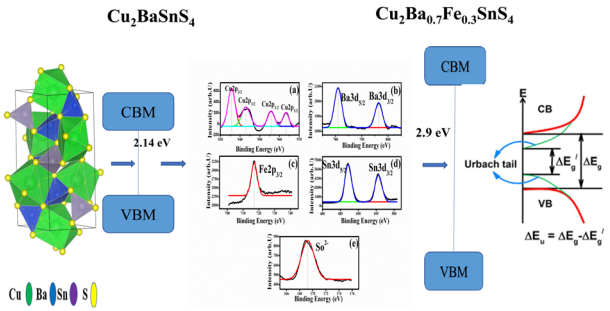
Wei Mengyu, Li Ruiyi and Li Zaijun*



18555

P-type to N-type conversion of Fe-doped Cu_2BaSnS_4

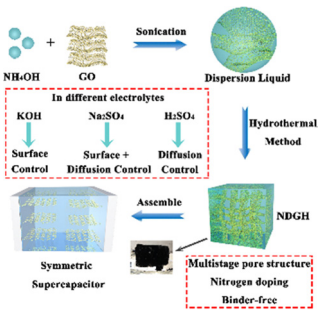
Peer Mohamed Sanjitha Banu, Johnson Henry, Ganesan Sivakumar, Kandasamy Prabakar and Kannusamy Mohanraj*



18567

Influence of aqueous electrolytes on the electrochemical behavior of nitrogen-doped graphene hydrogel electrodes for supercapacitors

Hui Ju, Tongchen Liu, Hongli Lang, Chenjin Pu, Xiaojing Bai, Yong Xu, Qianqian Tang, Shuxin Liu* and Lin Zhang



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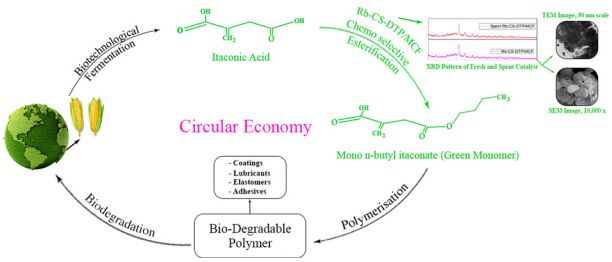
Highly selective esterification of bioderived itaconic acid to monobutyl itaconate: kinetic analysis of a reusable 20% (w/w) $Rb_{0.5}Cs_{2.0}H_{0.5}PW_{12}O_{40}$/MCF catalyst system

Rohitkumar G. Singh and Ganapati D. Yadav*



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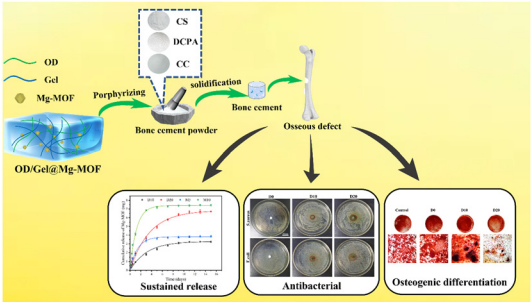
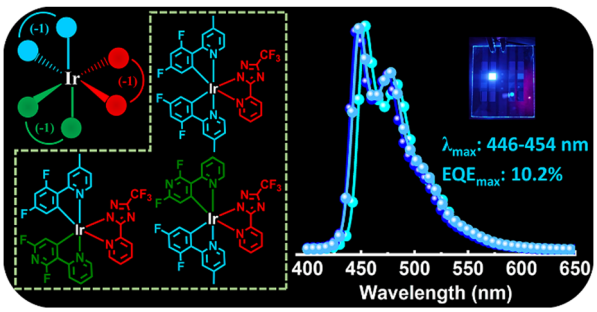


Regulating the release of Mg-MOF from degradable bone cement by coating Mg-MOF with oxidized dextran/gelatin

B. Wang, S. Peng, H. Chen, H. Ren, Y. Yan* and Q. Zhang*

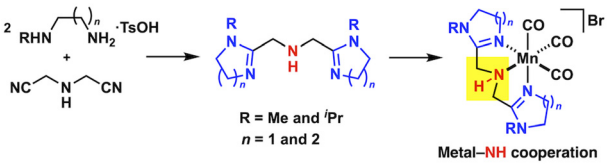
18603



Asymmetric [Ir(C_1^N_1)(C_2^N_2)(L^X)]-tris-heteroleptic iridium(III) complexes enable deep blue phosphorescent emission

Li Gu, Shuaibing Li, Huabo Han, Xinzhong Wang, Changjiang Zhou, Junjian Lu,* Liang Zhou* and Guangzhao Lu*

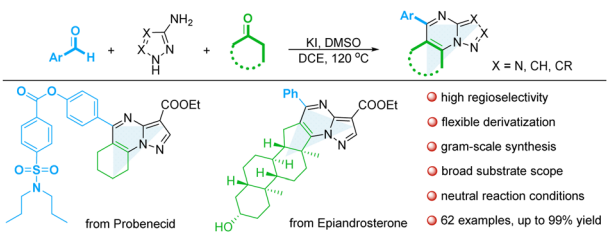
18610



Synthesis, structures, and properties of manganese(I) complexes featuring tridentate amidine-toting protic amine ligands

Ryo Watari and Yoshihito Kayaki*

18618



KI-mediated three-component annelation for the regioselective synthesis of angular azolo[1,5-*a*]pyrimidine derivatives

Yimei Guo, Zhenhua Sun, Xiaodan He,* Penghui Cao, Guangping Fan and Qinghe Gao*

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PAPERS

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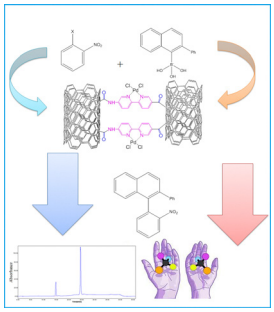
Catalytic activity of a palladium(II) complex modified on multi-wall carbon nanotubes: an efficient catalyst for the Suzuki cross-coupling reaction

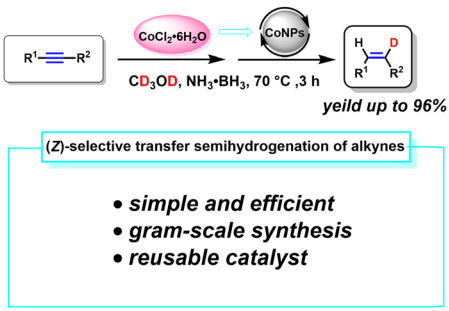
Hassan Keypour* and Jamal Kouhdareh



18634

A ligand-free *in situ*-generated cobalt nanoparticle catalyst for (*Z*)-selective transfer semihydrogenation of alkynes

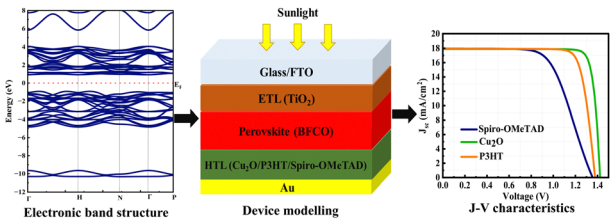
Shunbin Yang, Dengju Zhang, Weiguo Zuo, Guanqun Wang, Chengtao Wang, Jiyang Guo, Duona Fan, Song You* and Xian Jia*



18640

Exploration of the photovoltaic properties of oxide-based double perovskite Bi_2FeCrO_6 using an amalgamation of DFT with spin–orbit coupling effect and SCAPS-1D simulation approaches

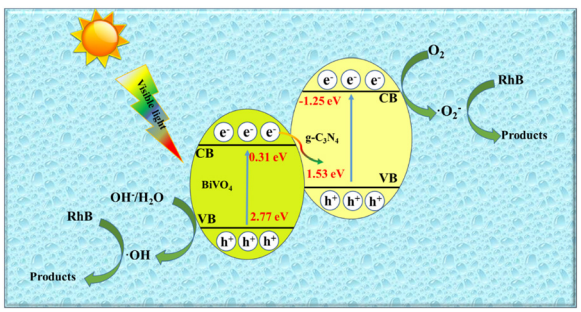
Gagan Kumar, Babban Kumar Ravidas, Sagar Bhattarai, Mukesh Kumar Roy and Dip Prakash Samajdar*



18659

Direct Z-scheme heterojunction of $BiVO_4$ microsphere/g-C_3N_4 nanosheets for the efficient photocatalytic degradation of Rhodamine B

Zhentao Wang, Waheed Iqbal, Jingjing Wang, Ninghui Chang* and Chuanguang Qin*



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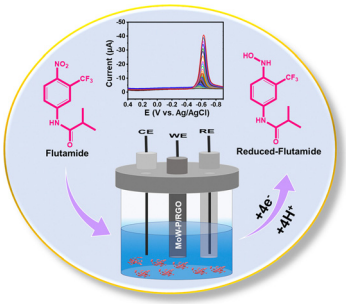
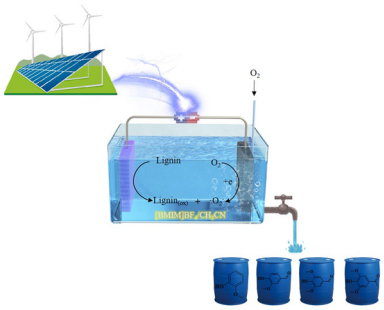


Determination of flutamide toward a real-time electrochemical sensor based on ultrathin reduced graphene oxide-covered MoW-P

Naveen Karuppusamy, Srinithi Subburaj, Shen Ming Chen,* Pitchaimani Veerakumar, Kuan-Yu Lin and S. Meenakshi

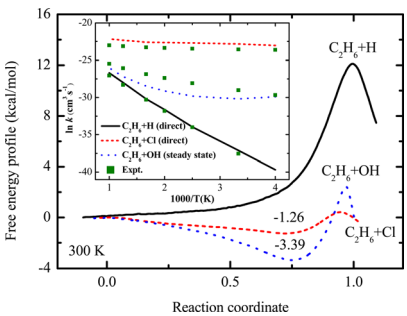
18682



Enhanced ORR performance to electrochemical lignin valorization in a mixture of ionic liquid/organic solvent binary electrolytes

Haomin Jiang, Ang Li, Yanzhi Sun, Lei Wang and Yongmei Chen*

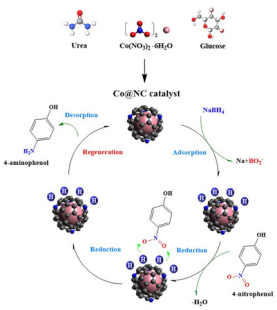
18690



Direct and steady state rate constants of C_2H_6 + X (X = H, Cl, OH): influence of the van der Waals well

Wanli Cheng and Wenji Wang*

18701



Cobalt nanoparticles encapsulated in nitrogen doped graphite as a highly efficient and reusable catalyst for the reduction of 4-nitrophenol

Yi-Jen Huang, Yi-Sheng Chen, Sheng-Yao Xi, Xun-Wen Hu and Mei-Hui Tsai*

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PAPERS

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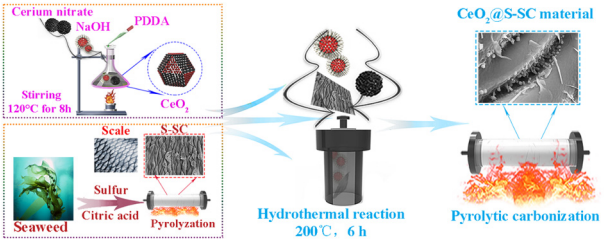
Hierarchical sulfur-doped scaly carbon coupled with a cerium oxide nanoparticle-based electrochemical sensor for the sensitive determination of uric acid

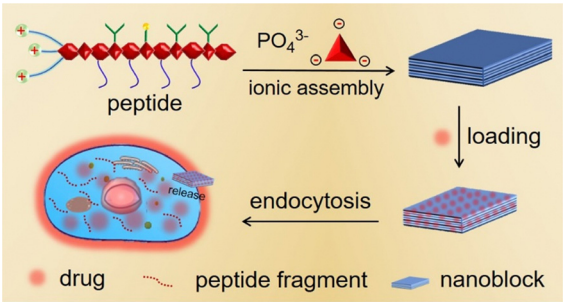
Di Zhu,* Xinying Li, Lili Fu, Tianshuo Bai, Qin Wang, Chunlei Ma, Xin Sun, Lixin Lin and Xuemei Li*



18721

Self-assembled peptide-based nanoblocks for drug delivery

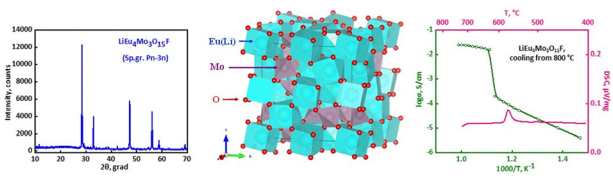
Xiaoming Xie,* Fanrui Meng, Zilin Zhang, Xingyu Xu, Minmin Guo, Yulian Jiang and Ting Wang*



18729

The fluorite-like $Ln_5Mo_3O_{16+\delta}$ family extension: $LiLn_4Mo_3O_{15}F$ (Ln = Eu, Gd, or Dy) ceramics

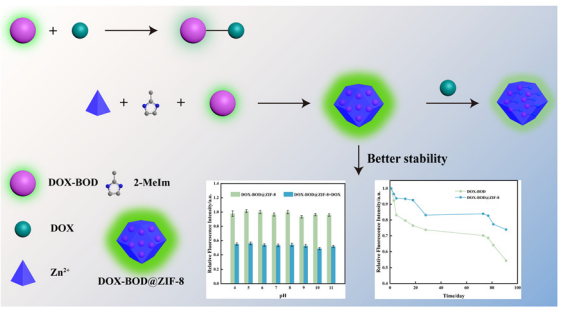
Ekaterina Orlova,* Timofei Sorokin, Alexander Pustovit, Egor Baldin, Elena Zakharova, Elena Kharitonova, Nikolay Lyskov, Valentina Utochnikova, Olga Alekseeva and Valentina Voronkova



18737

Metal–organic framework-based fluorescent probe device DOX-BOD@ZIEF-8 for the detection of doxycycline

Jia Gao, Xiaolong Sun, Huayue Zhu, Ru Jiang, Qing Guo, Xuankai Ding, Jiahuan Hu, Yifeng Wang, Yufeng Zhou, Lingzhi Ding and Yongqian Fu*



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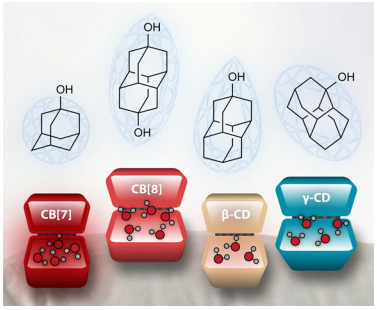
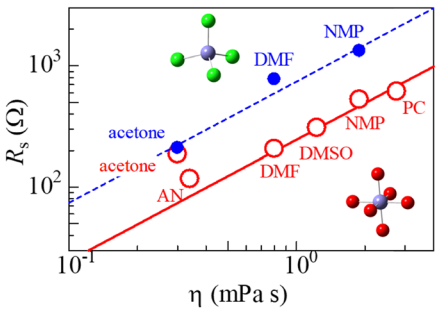


Hosting of diamantane alcohols in water and hydrogen-bonded organic solvents: the (non-)classical hydrophobic effect

Andrea Usenik, Marija Alešković, Sunčica Roca, Iva Markuš, Marina Sekutor* and Josip Požar*

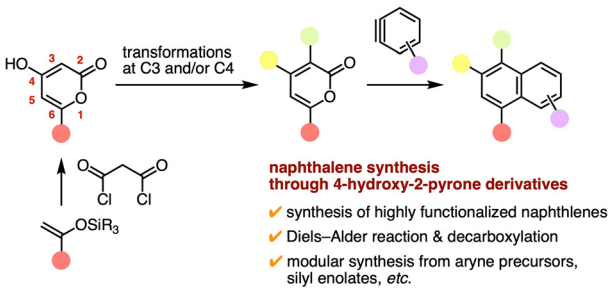
18756



Resistance components in organic electrolytes containing Fe^{2+}/Fe^{3+} for liquid thermoelectric conversion devices

Yunika Nomura, Dai Inoue and Yutaka Moritomo*

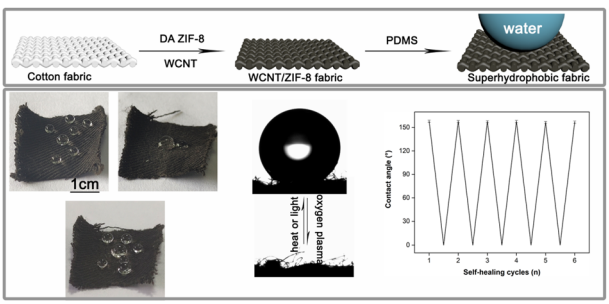
18762



Multisubstituted naphthalene synthesis from 4-hydroxy-2-pyrones through [4+2] cycloaddition with *o*-silylaryl triflates

Koyo Numata, Shinya Tabata, Akihiro Kobayashi and Suguru Yoshida*

18769



Robust self-healing superhydrophobic cotton fabric for durable and efficient oil–water separation

Hongliang Zhang and Zhiguang Guo*

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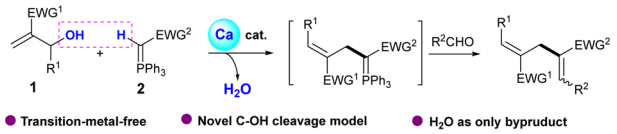
18779

Calcium-catalyzed dehydrative allylation of P-ylides and sequential Wittig reaction for streamlined access to versatile 1,4-dienes

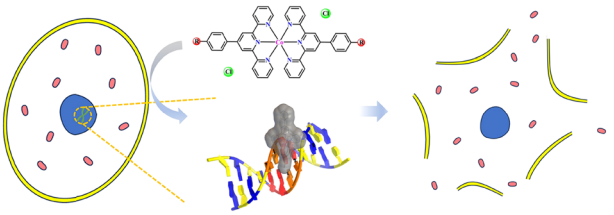
Xiaohong Li, Dong Zhang, Yan Wang, Shiji Xiao, Ying Wu, Peizhong Xie* and Teck-Peng Loh*



18785

Cobalt(II) terpyridine complexes: synthesis, characterization, antiproliferative activity and molecular docking with proteins and DNA

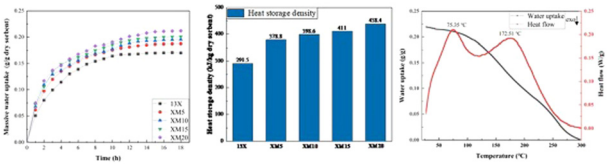
Min Chen, Dameng Sun, Jiahe Li, Zhiyuan Wang, Hongming Liu,* Lixia Pan,* Hailan Chen* and Zhen Ma*



18794

Zeolite 13X/$MgSO_4$ as a potential heat storage material: thermal performance characterization and sorption kinetics enhancement

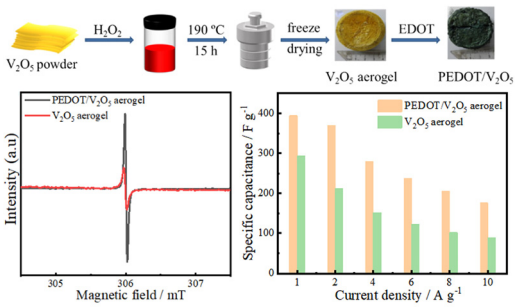
Ying-Jie Huo, Ting Yan,* Xiao-Le Chang, Hong Zhang and Wei-Guo Pan*



18803

Oxygen-vacancy V_2O_5 ultrathin nanosheets adorned with PEDOT films as anodes for high-energy-density asymmetric supercapacitors

Yanmei Liang, Danqin Li, Yao He, Shixing Chao, Mingming Zhang, Xueqian Zhao, Weiqiang Zhou,* Jingkun Xu* and Baoyang Lu



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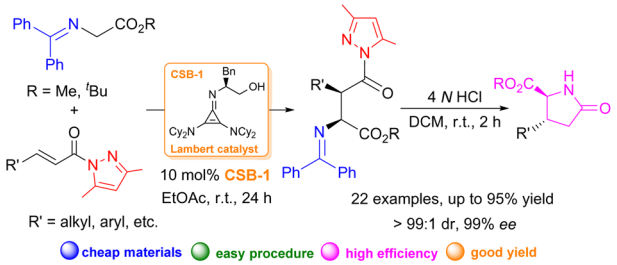
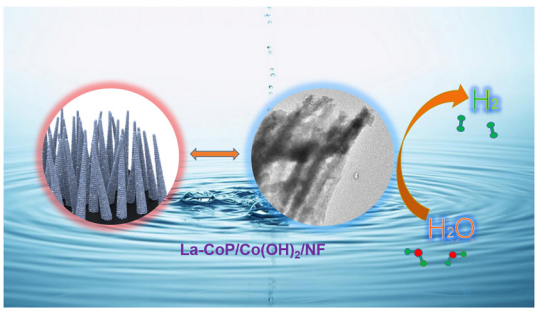
18811



Chiral cyclopropenimine-catalyzed enantioselective Michael additions between benzophenone-imine of glycine esters and α,β-unsaturated pyrazolamides

Yu-Jun Bai, Xue-Ying Wang, Si-Kai Zhu, Xiao-Hui Zheng,* Sheng-Yong Zhang* and Ping-An Wang*

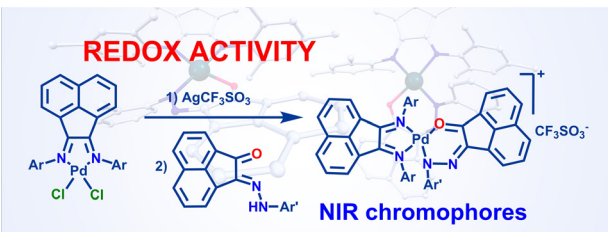
18818



$Co(OH)_2$ nanosheets decorated with La-CoP nanorod array for alkaline electrocatalytic hydrogen evolution reaction

Yaoxia Yang,* Xingwei Guo, Mi Kang, Dangxia Wang and Zhiwang Yang

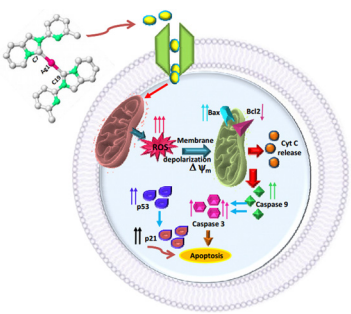
18825



Mono(arylhydrazino)acenaphthenones as a platform for the design of NIR chromophores based on Pd(II)-BIAN complexes

I. V. Bakaev, N. F. Romashev, V. I. Komlyagina, D. G. Samsonenko and A. L. Gushchin*

18835



Therapeutic potential of Ag(I)–, Au(I)–, and Au(III)–NHC complexes of 3-pyridyl wingtip N-heterocyclic carbenes (NHCs) against lung cancer

Prafulla K Behera, Lakshmikanta Maity, Sraddhya Roy, Ananya Das, Priyanka Sahu, Hemanta K. Kisan, Avtar Changotra, Anvarhusein A. Isab, Mohammed Benyounes Fettouhi, Aparajita Bairagi, Nabanita Chatterjee* and Joydev Dinda*

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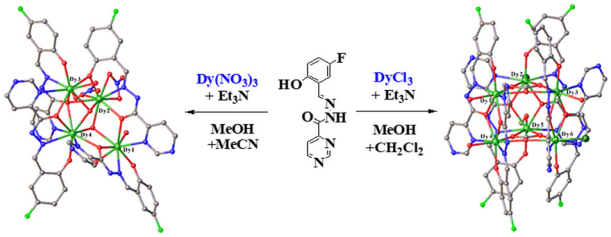
18849

Anion-dependent dysprosium(III) cluster single-molecule magnets

Cai-Ming Liu* and Xiang Hao



18856

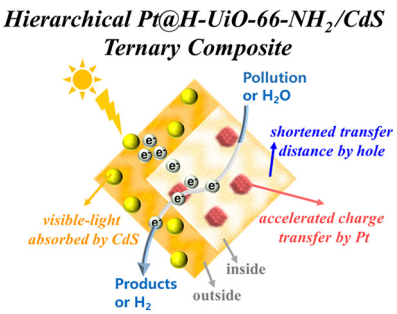
Palladium immobilized on guanidine functionalized magnetic nanoparticles: a highly effective and recoverable catalyst for ultrasound aided Suzuki–Miyaura cross-coupling reactions

Sumanth Hegde, Aatika Nizam,* Ajesh Vijayan, Ramesh B. Dateer and Suresh Babu Naidu Krishna*

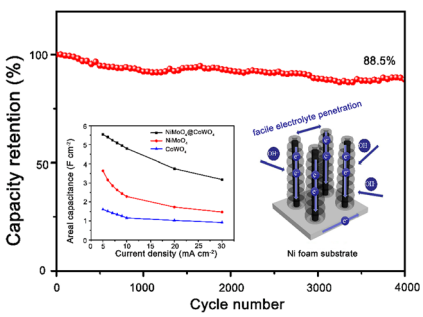
18865

A hierarchical hollow Pt@H-UiO-66-NH_2/CdS ternary catalyst for efficient visible light prompted photocatalysis

Chao Liu, Gang-Gang Chang,* Ting-Ting Luo, Yi-Tian Wang, Shi-Tian Xiao, Yao Yao, Hong-Jian Xu, Ge Tian, Christoph Janiak, Hai-Hu Yu and Xiao-Yu Yang*



18872

Three-dimensional $NiMoO_4$@$CoWO_4$ core–shell nanorod arrays for electrochemical energy storage applications

Bingbing Zhang, Kaibing Xu, Qian Liu,* Liangcai Wu* and Chunrui Wang