

## IN THIS ISSUE

ISSN 1144–0546 CODEN NJCHES 47(40) 18519–18880 (2023)



### Cover

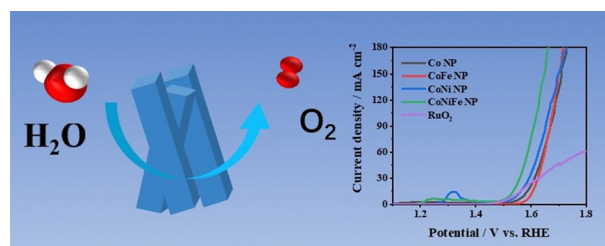
See Kenta Arai *et al.*, pp. 18537–18546. Image reproduced by permission of Kenta Arai from *New J. Chem.*, 2023, 47, 18537.

## 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\*

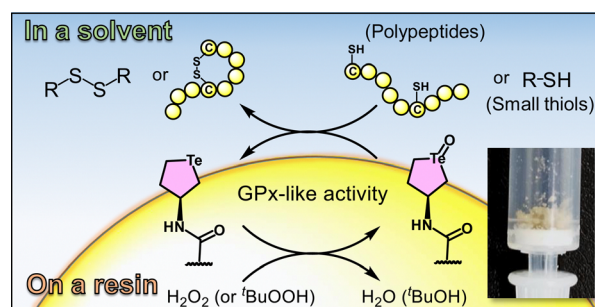


## PAPERS

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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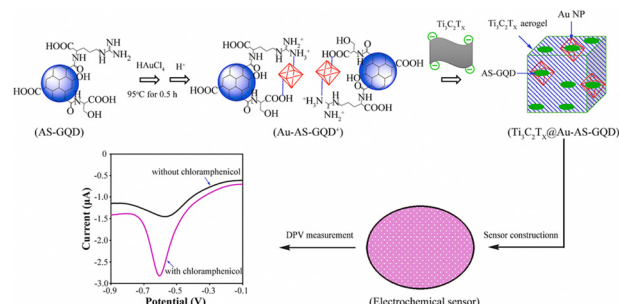


## PAPERS

18547

# Facile synthesis of $\text{Ti}_3\text{C}_2\text{T}_x$ @gold nanoparticle-arginine and serine-functionalized graphene quantum dot aerogel for electrochemical detection of chloramphenicol

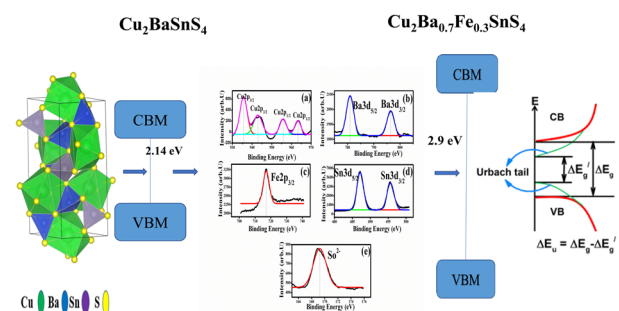
Wei Mengyu, Li Ruiyi and Li Zaijun\*



18555

# P-type to N-type conversion of Fe-doped $\text{Cu}_2\text{BaSnS}_4$

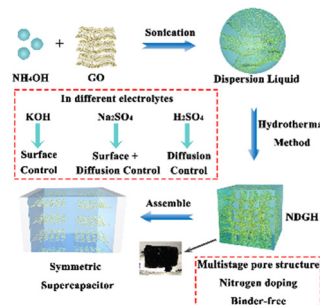
Peer Mohamed Sanjitha Banu, Johnson Henry, Ganesan Sivakumar, Kandasamy Prabakar and Kannusamy Mohanraj\*



18567

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

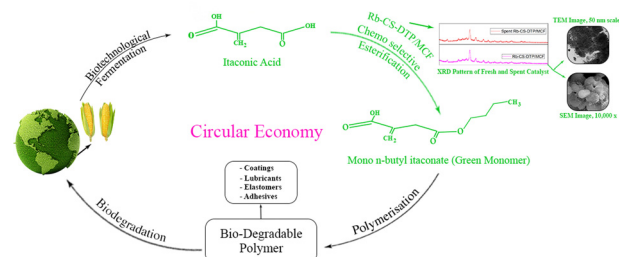
Hui Ju, Tongchen Liu, Hongli Lang, Chenjin Pu, Xiaojing Bai, Yong Xu, Qianqian Tang, Shuxin Liu\* and Lin Zhang



18577

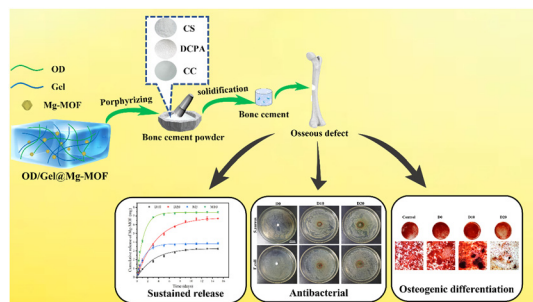
# Highly selective esterification of bioderived itaconic acid to monobutyl itaconate: kinetic analysis of a reusable 20% (w/w) $\text{Rb}_{0.5}\text{Cs}_{2.0}\text{H}_{0.5}\text{PW}_{12}\text{O}_{40}/\text{MCF}$ catalyst system

Rohitkumar G. Singh and Ganapati D. Yadav\*



## PAPERS

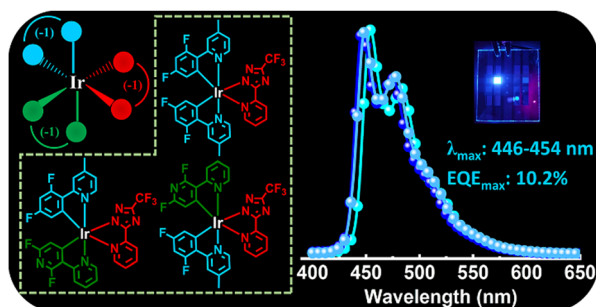
18591



### 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\*

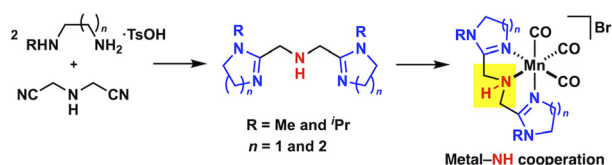
18603



### Asymmetric [Ir(C<sup>1</sup><sup>N</sup><sub>1</sub>)(C<sup>2</sup><sup>N</sup><sub>2</sub>)(L<sup>X</sup>)]-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\*

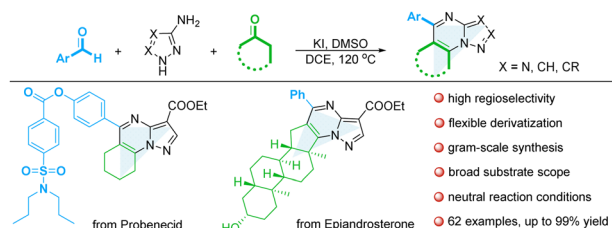
18610



### 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\*

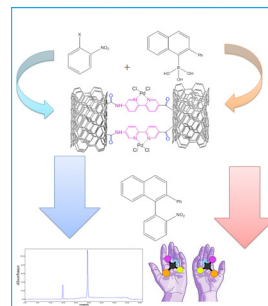


## PAPERS

18623

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

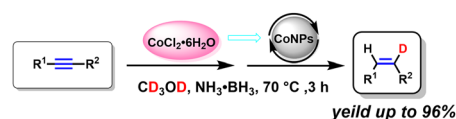
Hassan Keypour\* and Jamal Kouhdareh



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\*



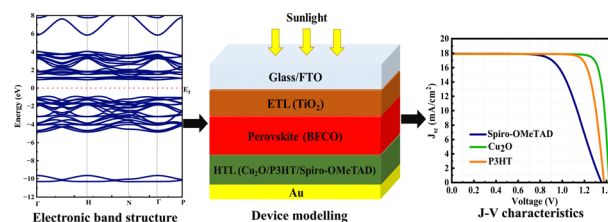
(Z)-selective transfer semihydrogenation of alkynes

- simple and efficient
- gram-scale synthesis
- reusable catalyst

18640

### Exploration of the photovoltaic properties of oxide-based double perovskite $\text{Bi}_2\text{FeCrO}_6$ using an amalgamation of DFT with spin-orbit coupling effect and SCAPS-1D simulation approaches

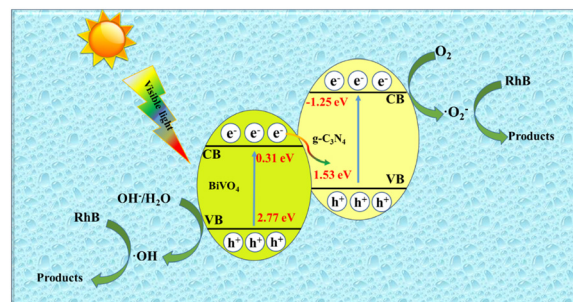
Gagan Kumar, Babban Kumar Ravidas, Sagar Bhattarai, Mukesh Kumar Roy and Dip Prakash Samajdar\*



18659

### Direct Z-scheme heterojunction of $\text{BiVO}_4$ microsphere/g- $\text{C}_3\text{N}_4$ nanosheets for the efficient photocatalytic degradation of Rhodamine B

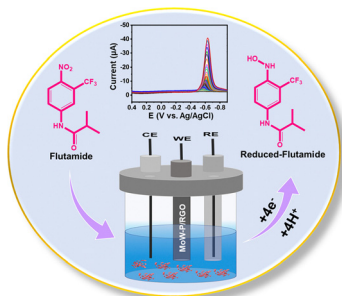
Zhentao Wang, Waheed Iqbal, Jingjing Wang, Ninghui Chang\* and Chuanguang Qin\*





## PAPERS

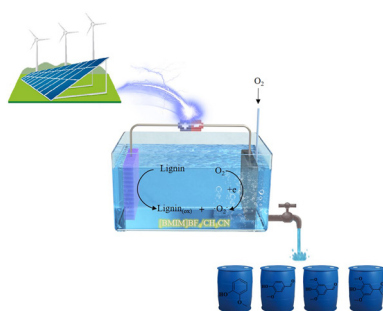
18671



### 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

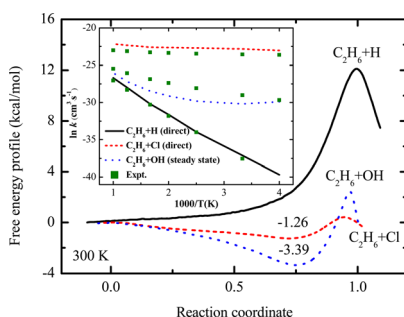
18682



### 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\*

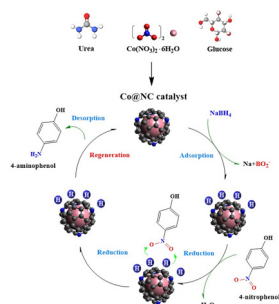
18690



### 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\*

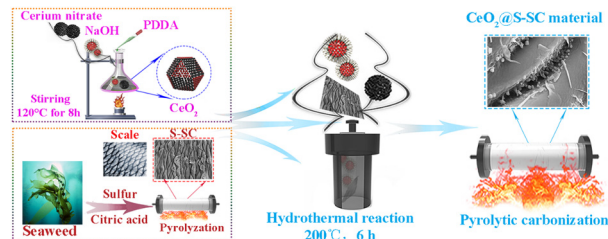


## PAPERS

18712

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

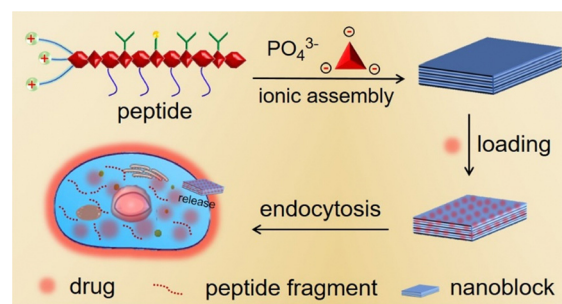
Di Zhu,\* Xinying Li, Lili Fu, Tianshuo Bai, Qin Wang, Chunlei Ma, Xin Sun, Lixin Lin and Xuemei Li\*



18721

### Self-assembled peptide-based nanoblocks for drug delivery

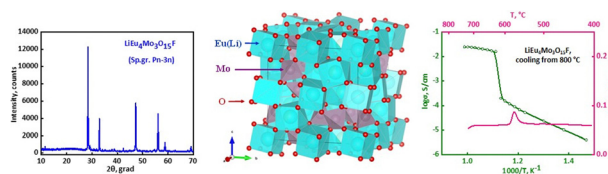
Xiaoming Xie,\* Fanrui Meng, Zilin Zhang, Xingyu Xu, Minmin Guo, Yulian Jiang and Ting Wang\*



18729

### The fluorite-like $\text{Ln}_5\text{Mo}_3\text{O}_{16+\delta}$ family extension: $\text{LiLn}_4\text{Mo}_3\text{O}_{15}\text{F}$ (Ln = Eu, Gd, or Dy) ceramics

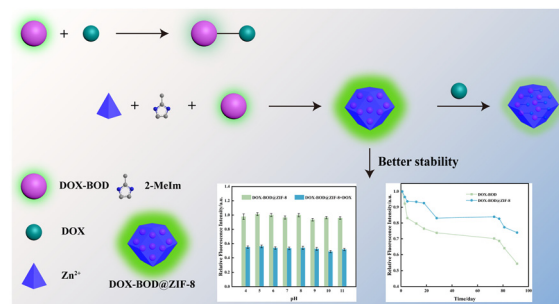
Ekaterina Orlova,\* Timofei Sorokin, Alexander Pustovit, Egor Baldin, Elena Zakharova, Elena Kharitonova, Nikolay Lyskov, Valentina Utochnikova, Olga Alekseeva and Valentina Voronkova



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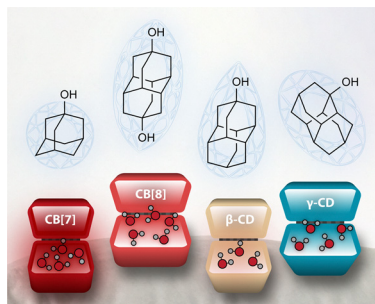
### Metal–organic framework-based fluorescent probe device DOX-BOD@ZIF-8 for the detection of doxycycline

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



## PAPERS

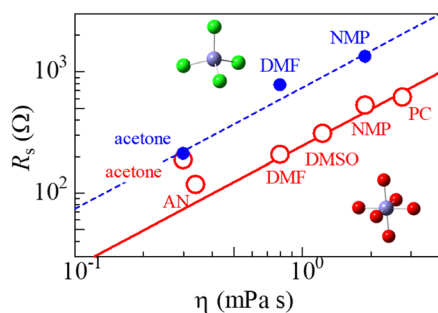
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### Hosting of diamantane alcohols in water and hydrogen-bonded organic solvents: the (non-)classical hydrophobic effect

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

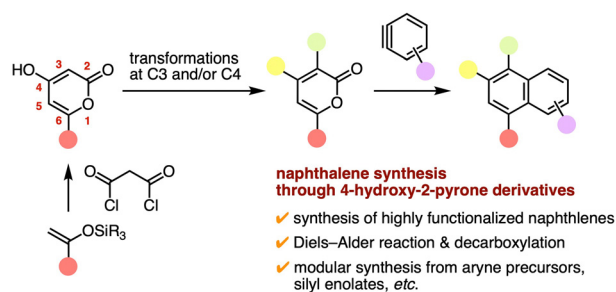
18756



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

Yunika Nomura, Dai Inoue and Yutaka Moritomo\*

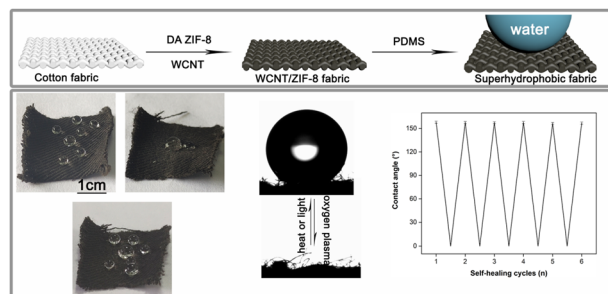
18762



### Multisubstituted naphthalene synthesis from 4-hydroxy-2-pyrone derivatives through [4+2] cycloaddition with o-silylaryl triflates

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

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

Hongliang Zhang and Zhiguang Guo\*



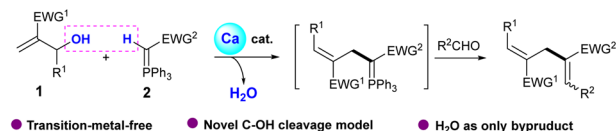


## PAPERS

18779

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

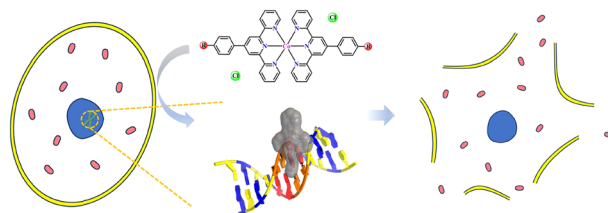
Xiaohong Li, Dong Zhang, Yan Wang, Shiji Xiao, Ying Wu, Peizhong Xie\* and Teck-Peng Loh\*



18785

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

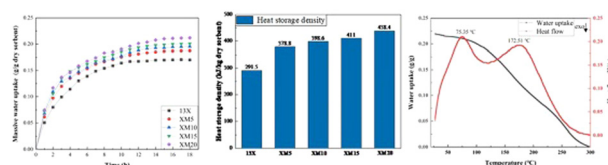
Min Chen, Dameng Sun, Jiahe Li, Zhiyuan Wang, Hongming Liu,\* Lixia Pan,\* Hailan Chen\* and Zhen Ma\*



18794

### Zeolite 13X/MgSO<sub>4</sub> as a potential heat storage material: thermal performance characterization and sorption kinetics enhancement

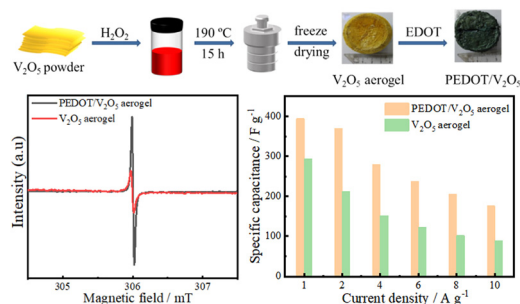
Ying-Jie Huo, Ting Yan,\* Xiao-Le Chang, Hong Zhang and Wei-Guo Pan\*



18803

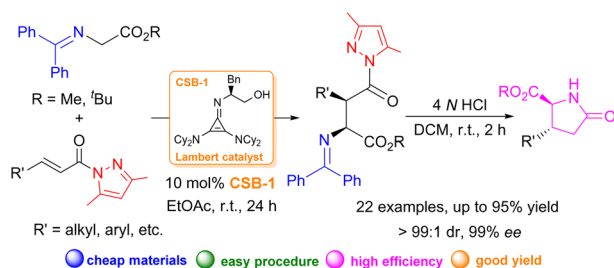
### Oxygen-vacancy V<sub>2</sub>O<sub>5</sub> ultrathin nanosheets adorned with PEDOT films as anodes for high-energy-density asymmetric supercapacitors

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



## PAPERS

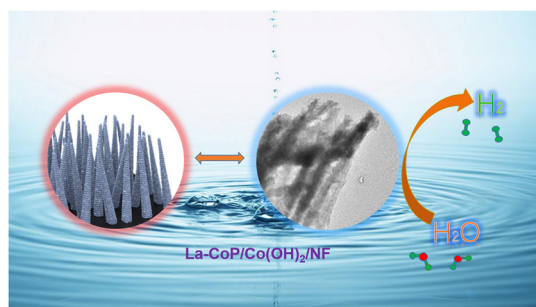
18811



### Chiral cyclopropenimine-catalyzed enantioselective Michael additions between benzophenone-imine of glycine esters and $\alpha,\beta$ -unsaturated pyrazolamides

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

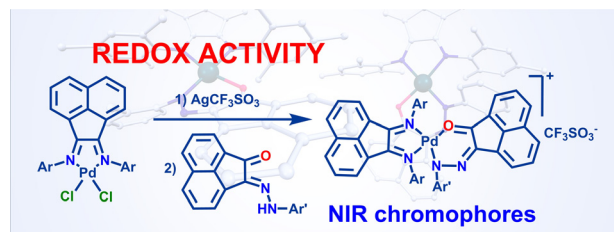
18818



### Co(OH)<sub>2</sub> nanosheets decorated with La-CoP nanorod array for alkaline electrocatalytic hydrogen evolution reaction

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

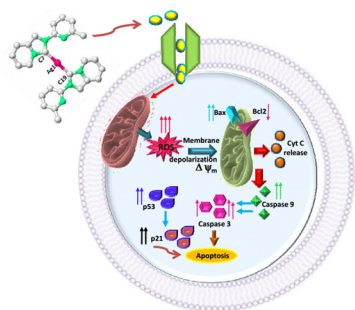
18825



### 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\*

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### 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\*

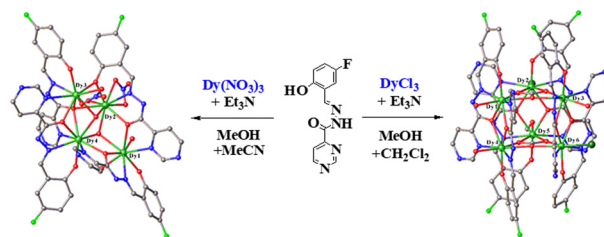


## PAPERS

18849

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

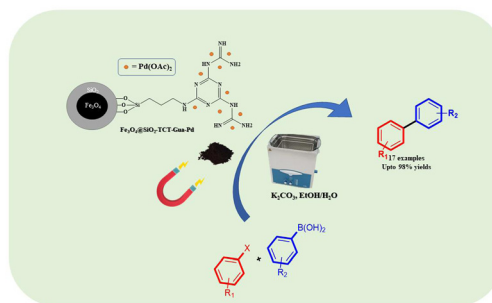
Cai-Ming Liu\* and Xiang Hao



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\*

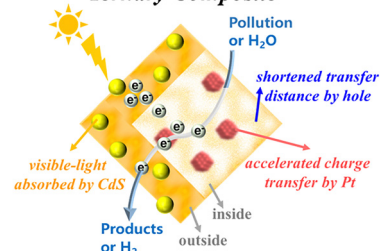


18865

## A hierarchical hollow Pt@H–UiO-66-NH2/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\*

## Hierarchical Pt@H–UiO-66-NH2/CdS Ternary Composite



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## Three-dimensional NiMoO4@CoWO4 core–shell nanorod arrays for electrochemical energy storage applications

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