

## IN THIS ISSUE

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### Cover

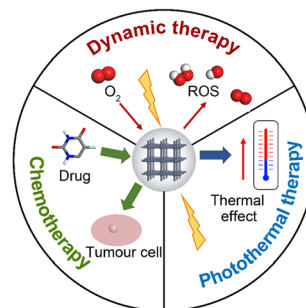
See Marisa Ionta, Marcelo Henrique dos Santos *et al.*, pp. 15460–15471. Image reproduced by permission of Marisa Ionta and Marcelo Henrique dos Santos from *New J. Chem.*, 2023, 47, 15460.

## PERSPECTIVES

15407

### Understanding the role of metal–organic frameworks in cancer treatment

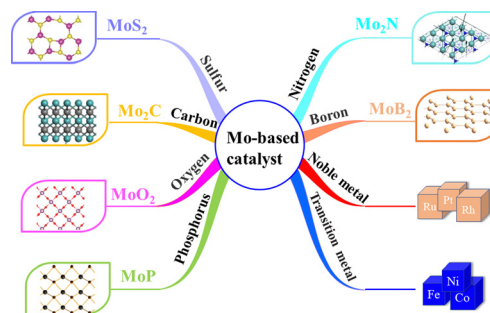
Yinuo Zhang, Xin Wang, Runhan Wang, Yinuo Chen, Lingdi Wang, Yaxin Shi, Zilu Wang, Weipin Niu\* and Wei Shi\*



15422

### Recent advances in Mo-based electrocatalysts toward the hydrogen evolution reaction and the hydrogen oxidation reaction

Ning Wan and Guangyin Fan\*



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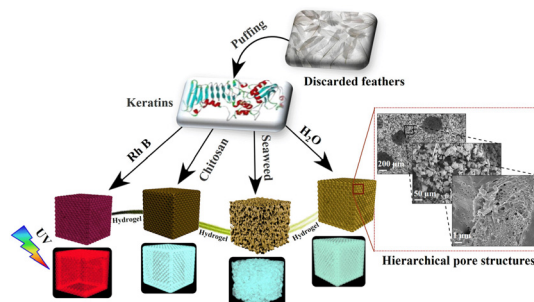


## COMMUNICATIONS

15440

### Novel luminescent hierarchical porous hydrogels with a three-dimensional interconnected network structure from feather keratin crosslinking reaction

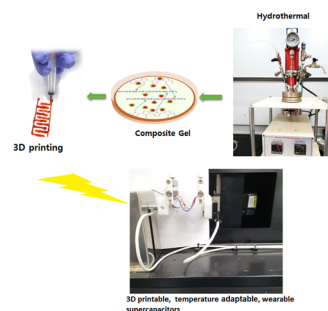
Chun-Feng Wang, Jin Chuan Wu and Qingxin Li\*



15445

### 3D printable, excellent temperature adaptable and wearable supercapacitors from TPU/PPy/MnCO<sub>3</sub> matrix gel

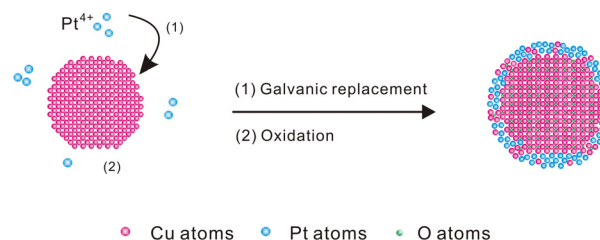
Subramanian Praveenkumar, Samayanan Selvam and Jin-Heong Yim\*



15450

### Tuning the surface structure of Cu<sub>2</sub>O@Pt for enhanced ethanol electrooxidation

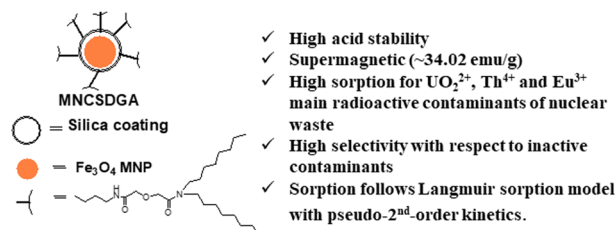
Xiang Li,\* Junjun Zhang, Bo Xi, Yaming Liu, Changqing Jin, Xiaohua Feng and Ge Liu



15455

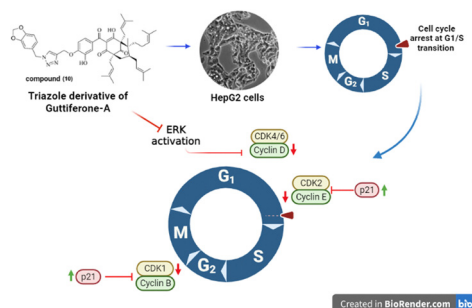
### DGA-functionalized super-magnetic acid-stable sorbent for treatment of acidic rich nuclear effluent

P. N. Khan, S. Pahan, Arijit Sengupta\* and Tessy V.



## PAPERS

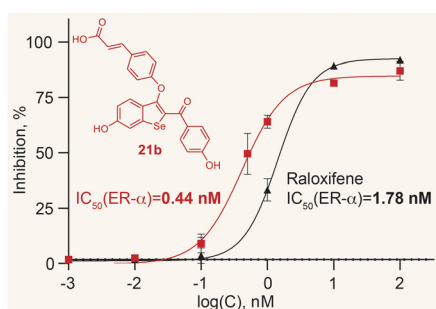
15460



### Triazole derivatives of guttiferone-A inhibit the proliferation of HepG2 cells by modulating MAPK/ERK signaling and expression profiles of regulators of G1/S transition

Dayana Alves Rodrigues, Bianca Lana de Sousa, Carolina Giroto Pressete, Júnio Gonçalves Silva, Bruno Zavan, Ester Siqueira Caixeta, Antônio Jacinto Demuner, Eduardo Pilau, Evandro Silva, Marisa Ionta\* and Marcelo Henrique dos Santos\*

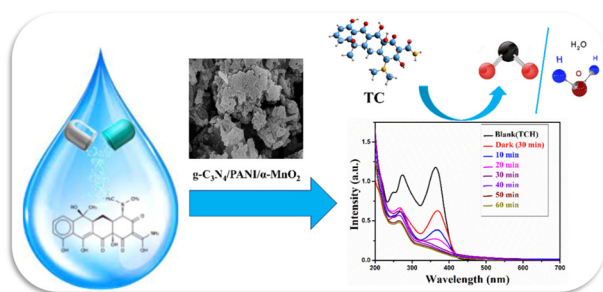
15472



### Selenium analogues of rintodestrant (G1T48) as potent estrogen receptor modulators and downregulators

Edgars Paegle, Pavels Dimitrijevs and Pavel Arsenyan\*

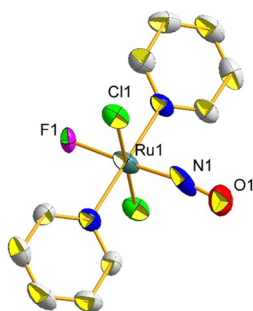
15487



### Construction of a g-C<sub>3</sub>N<sub>4</sub>/PANI/α-MnO<sub>2</sub> direct Z-scheme heterojunction with oxygen-rich vacancies for enhancing photocatalytic degradation of tetracycline hydrochloride under visible light

Nisar Ahmad Chopan and Hamida-Tun-Nisa Chishty\*

15506



### The influence of hydroxide to fluoride substitution in the *trans*-position to NO on the photochemistry of ruthenium nitrosyl complexes in the solid state and in solution

Artem A. Mikhailov, Anastasiya O. Brovko, Nataliya V. Kuratieva, Ilia V. Eltsov, Dominik Schaniel and Gennadiy A. Kostin\*

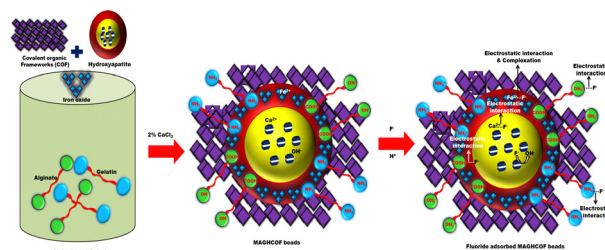


## PAPERS

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# Microfabrication of covalent organic framework-based magnetic bio-ceramic beads for defluoridation of water

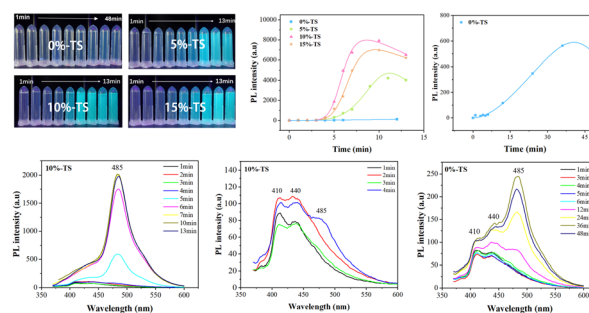
Antonyamy Jeyaseelan, Natrayasamy Viswanathan,\*  
Ilango Aswin Kumar and Sabah Ansar



15525

# Microwave-synthesized narrow emitting carbon dots and their tunable fluorescence for sensing applications

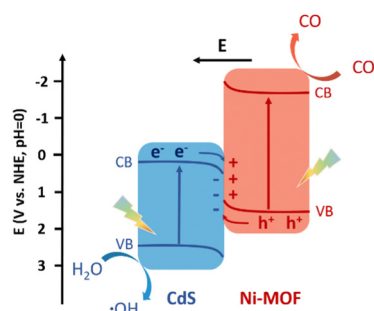
Xiao-Lan Wei,\* Qin-Lin Shi, Lan Jiang and Yu Qin



15534

# Synthesis of a highly active core-shell Ni-MOF@CdS S-scheme heterojunction for enhanced photoreduction of CO<sub>2</sub> to CO

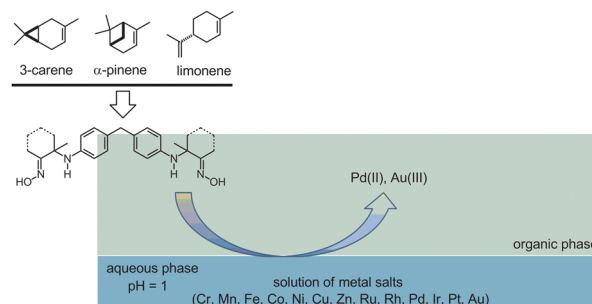
Rai Nauman Ali, Waqar Ahmad Qureshi, Hina Naz,  
Haopeng Jiang, Maria Yaseen, Xiaohui Yu\* and  
Qinqin Liu\*



15543

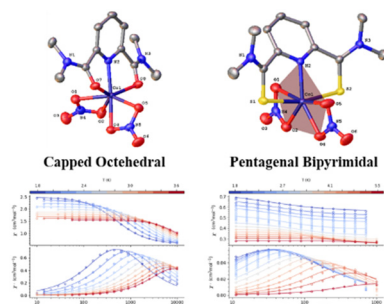
# New reagents for selective extraction of Pd(II) and Au(III) from acidic media

Darya V. Zubricheva, Sergey N. Bizyaev, Vera D. Tikhova  
and Alexey V. Tkachev\*





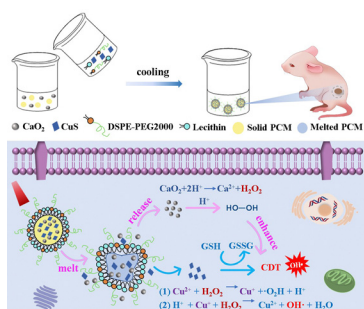
15553



### Structures and magnetic anisotropies of two seven-coordinate Co(II)–nitrate complexes showing slow magnetic relaxation

Wei Lv, Lei Chen, Xue-Tai Chen,\* Hong Yan,\*  
Zhenxing Wang,\* Zhong-Wen Ouyang and Zi-Ling Xue

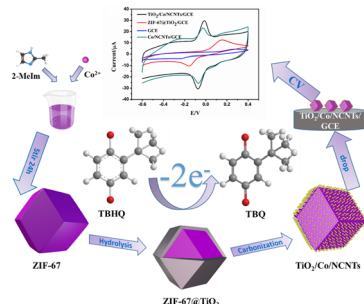
15561



### A phase change material packaged multifunctional nanoplatform integrating hydrogen peroxide self-supply and photothermal response for boosting synergistic chemodynamic and photothermal therapy

Kai Pang,\* Guligena Pidamaimaiti, Yuxi Zhu, Da Sun,  
Bingchen Yu, Zheng Duanmu, Fu Wang and Xunbin Wei\*

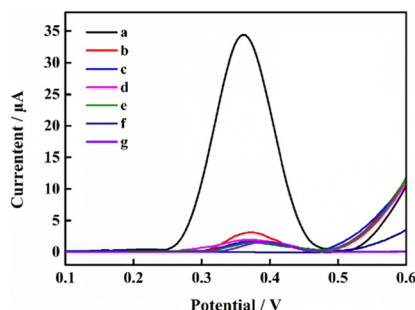
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### Electrochemical determination of tert-butylhydroquinone by ZIF-67@TiO<sub>2</sub> derived hierarchical TiO<sub>2</sub>/Co/NCNTs

Shengbiao Zheng, Jialong Fan, Feilong Yin, Jie Chen,  
Zhenzhen Hui, Jing Tang,\* Xuchun Wang and  
Jiahao Guo\*

15579



### A high-performance PEDOT:PSS platform electrochemical biosensor for the determination of HER2 based on carboxyl-functionalized MWCNTs and ARGET ATRP

Daoxiang Li, Weiye Zhang, Mingsan Miao,\* Yanju Liu\* and  
Huaixia Yang\*

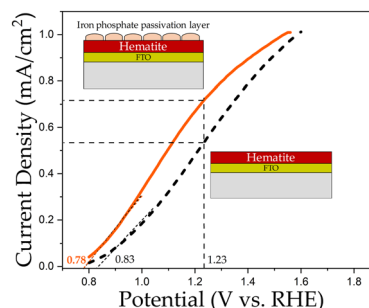


## PAPERS

15588

# Surface passivation of hematite photoanodes using iron phosphate

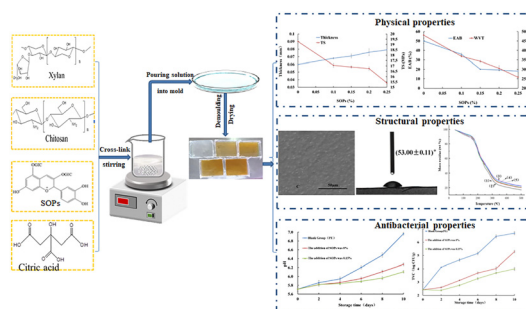
Fatemeh Parveh, Amin Yourdkhani\* and Reza Poursalehi



15599

# Preparation and performance of xylan-based *Sanguisorba officinalis* L. polyphenol preservative films

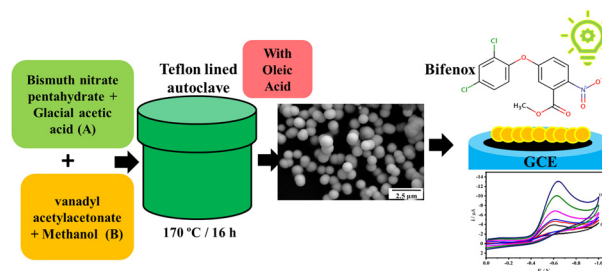
Zhuorui Zhang, Yunkai Yan, Jinyang Wang, Jianxi Song and Guiquan Jiang\*



15609

# Size and surface-engineered BiVO<sub>4</sub> catalytic smooth spheres for efficient electrochemical detection of bifenox herbicide

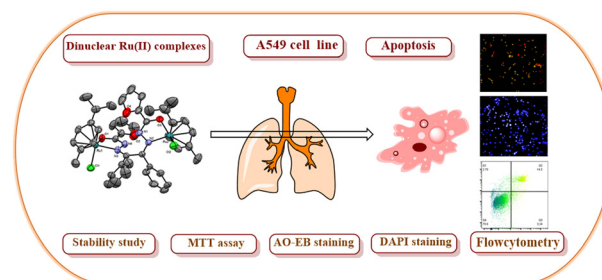
Thangaraju Dheivasigamani,\* Kumaravel Ammasai,\* Priyadharshini Shanmugam, Govarthini Seerangan Selvam and Durairajan Arulmozhi



15622

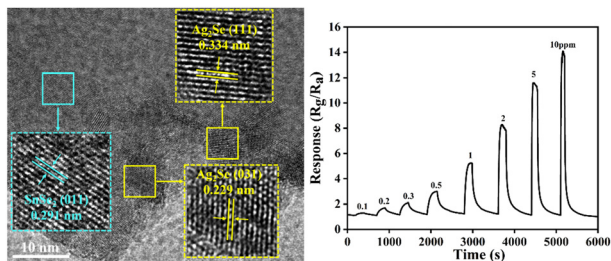
# New dinuclear arene Ru(II) benzilbis(furoylhydrazone) complexes: synthesis, structure, and anticancer activity

Sankar Monika and Rengan Ramesh\*



## PAPERS

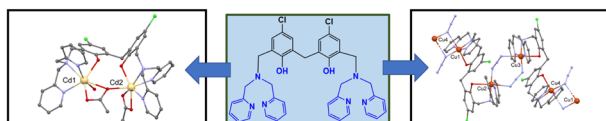
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### $\text{SnSe}_2/\text{Ag}_2\text{Se}$ heterostructures with an accumulation layer for rapid and sensitive detection of $\text{NO}_2$

Junpeng Mao, Dongmin Yin, Wen Lu, You Wang,\*  
Zhenze Zhou, Weixun Hao, Xiangqun Chen\* and  
Juanyuan Hao\*

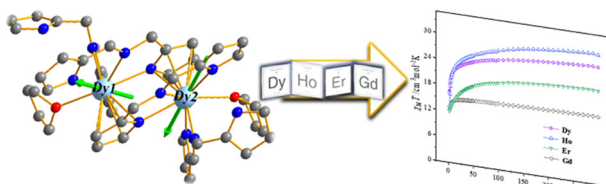
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### Structure and magnetic characterization of some bicompartamental $[\text{N}_6\text{O}_2]$ divalent metal(II) complexes using bis(phenolato) ligands bearing two pendant bis(pyridyl) amine arms

Franz A. Mautner,\* Roland C. Fischer, Ana Torvisco,  
Kai Nakashima, Makoto Handa, Masahiro Mikuriya,  
Nahed M. H. Salem, Gabriel J. Overby, Madison R. Maier,  
Febbe R. Louka and Salah S. Massoud\*

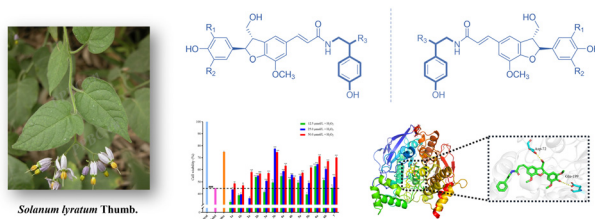
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### Organolanthanide $\eta^1$ - and $\eta^5$ -pyrrolyl half-sandwich compounds: synthesis, structures, and magnetic properties

Yeye She, Yanhua Lu, Chaohong Jia, Yahong Li,\*  
Yi-Quan Zhang\* and Jin-lei Yao\*

15658



### Stereochemical investigations of bioactive dihydrobenzofuran-type lignanamides from *Solanum lyratum*: chiral resolution, *in vitro* and *in silico* profiling

Ye Chang, Zhi-Kang Duan, Xin Zhang, Jiao-Yang Hou,  
Jia-Qi Niu, Guo-Dong Yao, Bin Lin, Shao-Jiang Song,  
Ming Bai\* and Xiao-Xiao Huang\*



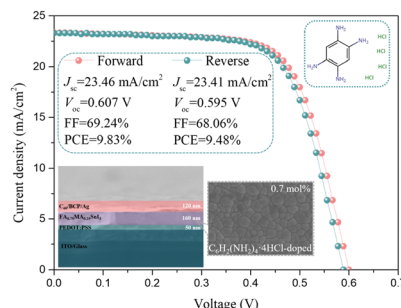


## PAPERS

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# High-efficiency and stable FA<sub>0.75</sub>MA<sub>0.25</sub>SnI<sub>3</sub> perovskite solar cells with large-size crystal grains prepared by doping with multifunctional chloride salt

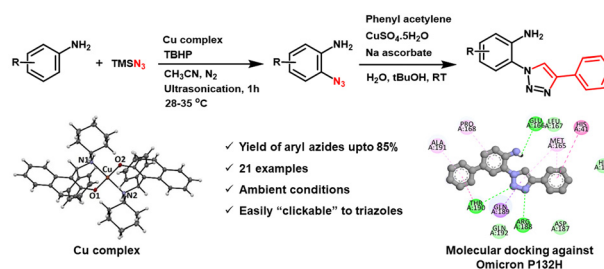
Minghao Wang\* and Wei Wang



15677

# C–H functionalization of aromatic amines for azidation catalyzed by Betti base coordinated copper(II) complexes under ultrasonication

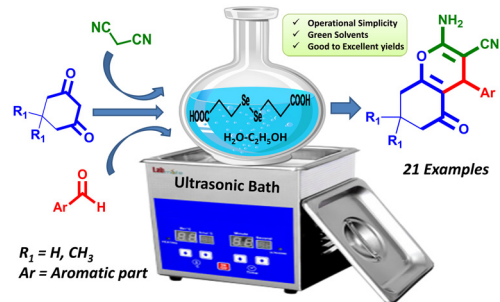
Premkumar G., Toka Swu,\* Richa Gupta and Kothandaraman R.



15686

# A redox active organodiselenide as an efficacious catalyst for the synthesis of oxygen-containing heterocyclic compounds

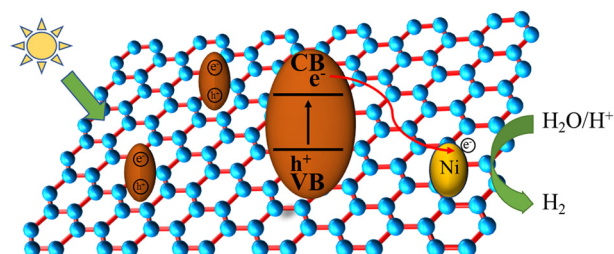
Noimur Rahman,\* Nisha Kushwah and K. Indira Priyadarsini



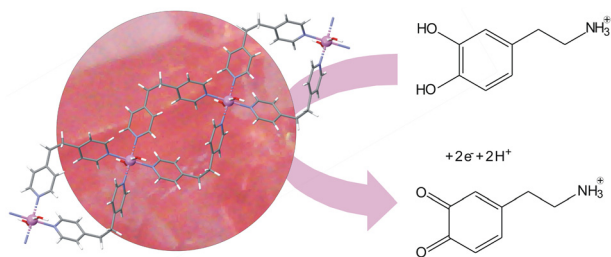
15694

# Enhanced photocatalytic hydrogen production activity of Ni modified TiO<sub>2</sub>/GO nanosheet composites

Faxing Liu, Qunjun Xiang,\* Xigui Zhang\* and Haiping Zhou\*



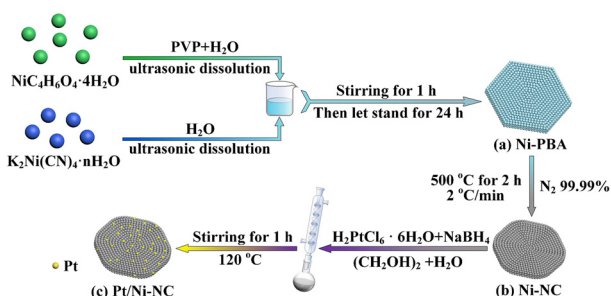
15701



### A cobalt(II) coordination polymer with 6-aminonicotinate and 1,2-bis(4-pyridyl)ethane as a new electrochemical sensor for determination of dopamine

Boris-Marko Kukovec, Ivana Škugor Rončević,\*  
Nives Vladislavić, Nabanita Chatterjee,  
Vesna Sokol and Clive L. Oliver\*

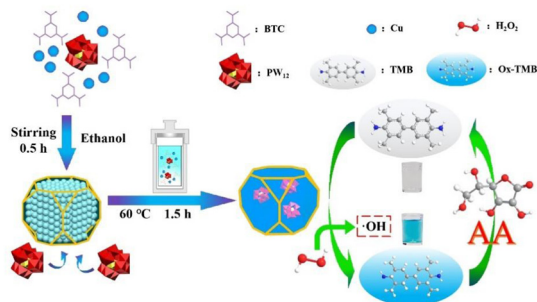
15711



### Pt-decorated MOF-derived Ni–N–C materials as efficient electrocatalysts for methanol oxidation

Chao Luan, Xuanhua Zhang, Chao Wang, Mengyin Liao,\*  
Wenyuan Xu\* and Bohong Chen\*

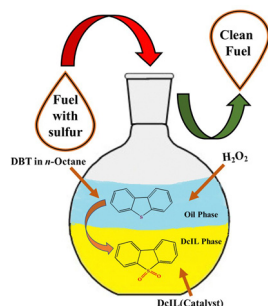
15721



### The fabrication of CuBTC@PW<sub>12</sub> with prominent peroxidase-mimicking activity for colorimetric detection of H<sub>2</sub>O<sub>2</sub> and ascorbic acid via "on-off" switch

Wanyu Song, Peng Sun, Jihong Zhou, Xu Han,\*  
Qijun Dai\* and Fang Chai\*

15731



### Deep extractive and catalytic oxidative desulfurization of liquid fuels by using iron(III) based dication ionic liquids

Anham Zafar, Imtiaz-ud- Din,\* Saadia Batool,  
Robert G. Palgrave and Sammer Yousuf

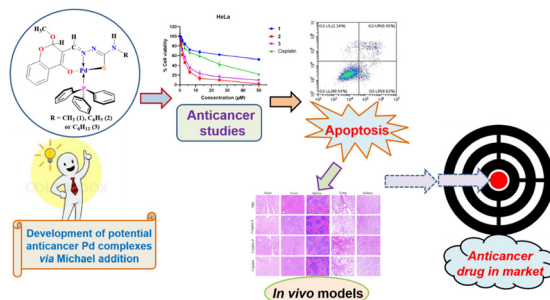


## PAPERS

15748

# Michael addition-driven synthesis of cytotoxic palladium(II) complexes from chromone thiosemicarbazones: investigation of anticancer activity through *in vitro* and *in vivo* studies

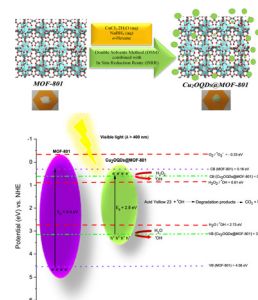
Jebiti Haribabu,\* Nithya Balakrishnan, Srividya Swaminathan, Dorothy Priyanka Dorairaj, Mohammad Azam, Mohamed Kasim Mohamed Subarkhan, Yu-Lun Chang, Sodio C. N. Hsu, Pavel Štarha and Ramasamy Karvembu\*



15760

# Embedding of copper(I) oxide quantum dots in MOF-801 for the photocatalytic degradation of acid yellow 23 under visible light

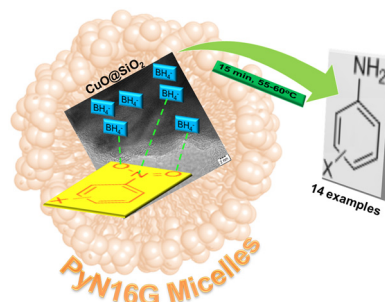
Roghayyeh Ghasemzadeh and Kamran Akhbari\*



15771

# 2-Pyridylmethyl-*N*-palmitoylglycine micelle-guided synthesis of a recyclable CuO@SiO<sub>2</sub> nanocatalyst for hydride transfer nitro reduction in water

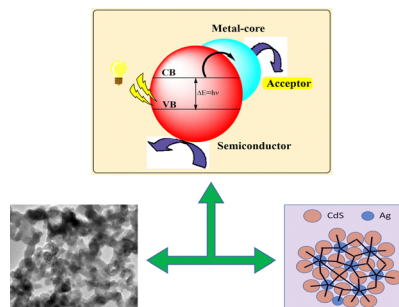
Aleena Pious, Ragavi S., Ravi Kanth Kamlekar, Mariappan Mariappan and Veerappan Anbazhagan\*



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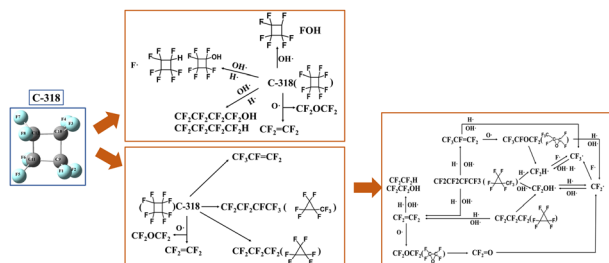
# Facile synthesis of cross-linked Ag–CdS nanoshell morphology for highly efficient photocatalytic activity

Shubhramshu Bhandari,\* Mir Sahidul Ali,\* Debayan Roy, Suresh Saini, Mir Intaj Ali and Mir Sahanur Ali



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Houssem Boulebd,\* Imene Amine Khodja, Miguel Carmena-Bargueño and Horacio Pérez-Sánchez

## CORRECTIONS

15809

### Correction: Green synthesis of M-type manganese-substituted strontium hexaferrite SrMn<sub>x</sub>Fe<sub>12-x</sub>O<sub>19</sub> nanoparticles with intrinsic antibacterial activity against human pathogenic bacteria

Rebaz F. Hamarawf, Diary I. Tofiq\* and Khalid M. Omer\*

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### Correction: Highly efficient post-synthetically modified UiO-66 MOF for the extraction of Pd(II) from aqueous solutions: experimental and theoretical studies

Somnath Sengupta, Madhusmita Sahoo,\* V. Venkata Sravani, B. Sreenivasulu,\* C. V. S. Brahmananda Rao and A. Suresh

