

## IN THIS ISSUE

ISSN 1144-0546 CODEN NJCHES 48(5) 1879–2350 (2024)



### Cover

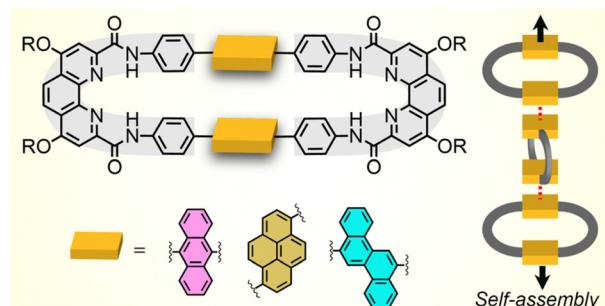
See Bappaditya Gole et al.,  
pp. 1894–1897.  
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Bappaditya Gole from  
*New J. Chem.*,  
2024, **48**, 1894.

## COMMUNICATIONS

1894

### Synthesis and spontaneous self-assembly of non-planar aromatic amide macrocycles

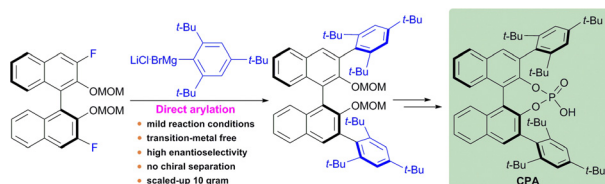
Rabban Rabban, Jinti Moni Kumar, Naiwrit Karmodak and Bappaditya Gole\*



1898

### A convenient synthetic approach to highly hindered 3,3'-bis(2,4,6-tri-*tert*-butylphenyl)-BINOL-derived phosphoric acids

Zhiqiang Wang and Gen Li\*



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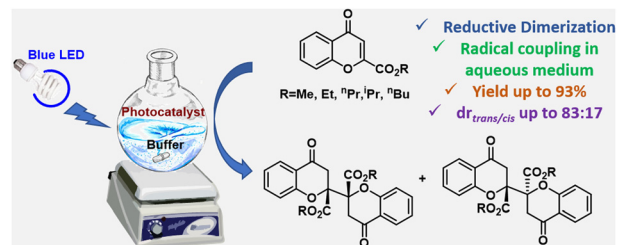
**rsc.li/icm**

## COMMUNICATIONS

1902

**Organophotoredox-catalyzed stereoselective reductive dimerization of chromone-2-carboxylic esters**

Arijit De, Tanaya Manna, Subhas Chandra Debnath and Syed Masood Husain\*

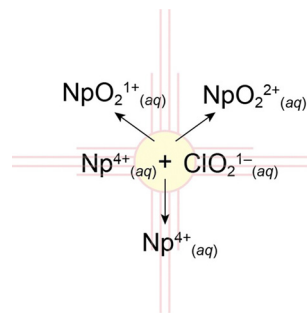


## PAPERS

1907

**Electron transfer between neptunium and sodium chlorite in acidic chloride media**

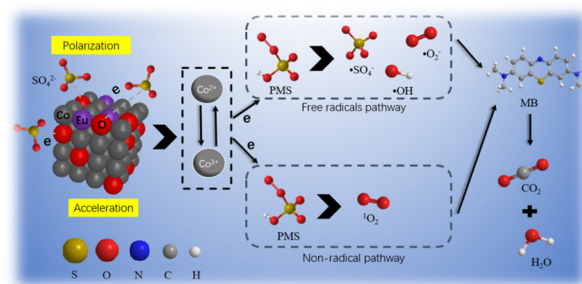
Brian T. Arko, David Dan, Sara L. Adelman,\* David B. Kimball,\* Stosh A. Kozimor\* and Jennifer C. Shafer\*



1919

**Enhanced catalytic performance of  $\text{Co}_3\text{O}_4/\text{Eu}_2\text{O}_3$  with sulfur-modification in activating peroxymonosulfate for removal of methylene blue**

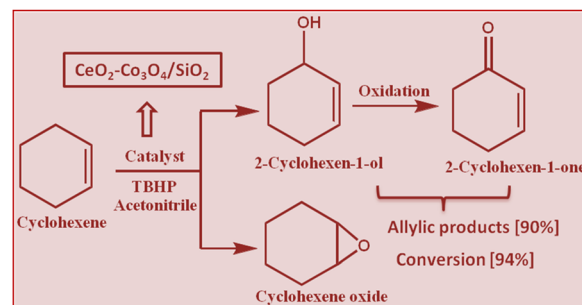
Haili Shen, Ying Wei, Qiang Xia, Jun Shen and Gang Li\*



1932

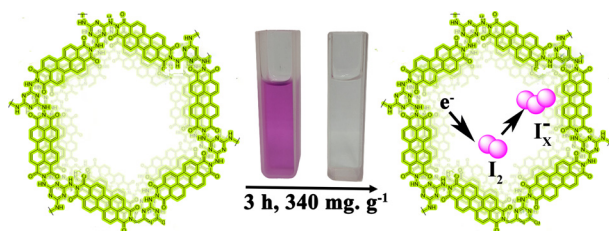
 **$\text{SiO}_2$  supported Ce–Co mixed oxide catalyzed selective allylic oxidation of cyclohexene**

Palli Sitaramulu, Silligandla Nazeer, Kamma Yogendra, Aratikumari Suresh Prasad, Pendem Chandrashekar and Tumula Venkateshwar Rao\*



## PAPERS

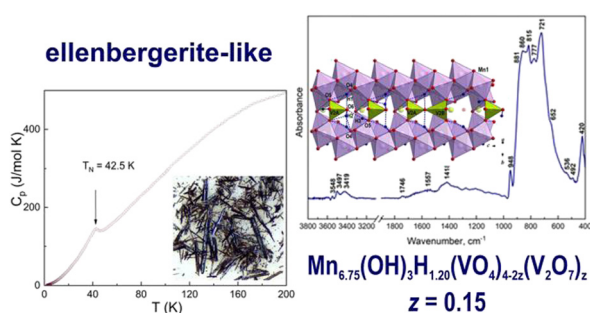
1943



### Nitrogen-rich porous organic polymer as a promising adsorbent for iodine capture from organic solvents

Fatemeh Khosravi Esmaeiltarkhani, Mohammad Dinari\* and Nazanin Mokhtari

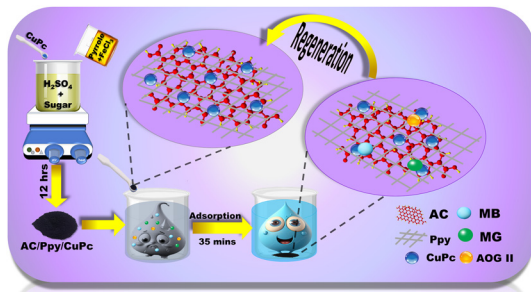
1952



### Crystal structure, infrared spectroscopy and thermodynamic properties of a manganese member of the ellenbergerite family

Larisa V. Shvanskaya,\* Polina V. Krikunova, Tatyana M. Vasilchikova, Elena Y. Borovikova, Olga S. Volkova and Alexander N. Vasiliev

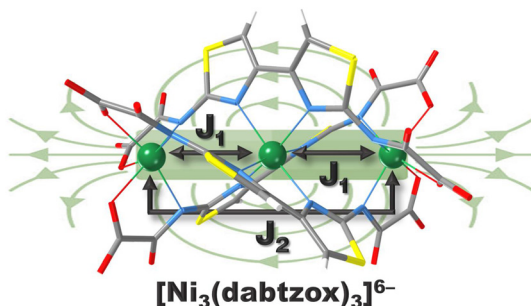
1958



### Facile one-pot synthesis of a waste copper phthalocyanine-derived nanocomposite for efficiently removing dyes from wastewater

Munazza Munshi, Tanzila Khan, Madhuri Bhakare, Ankita Kadam and Surajit Some\*

1971



### Crystal structure, magnetic properties and theoretical study of a bithiazolebis(oxamate)-containing [Ni<sub>3</sub>] helicate

Lucas H. G. Kalinke, Mariany S. Silva, Renato Rabelo, Ana K. Valdo, Felipe T. Martins, Nicolás Moliner, Miguel Julve, Francesc Lloret, Joan Cano\* and Danielle Cangussu\*

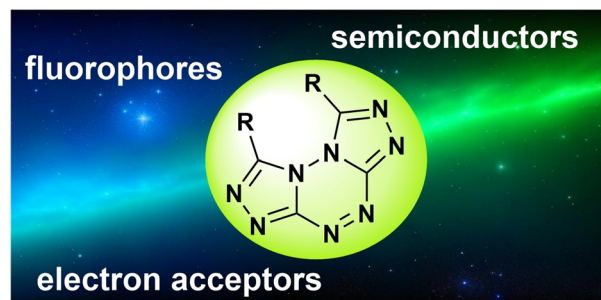


## PAPERS

1983

# Novel helix-shape bis[1,2,4]triazolo[4,3-*b*:3',4'-*f*][1,2,4,5]tetrazines: synthesis, optical and charge-transfer properties

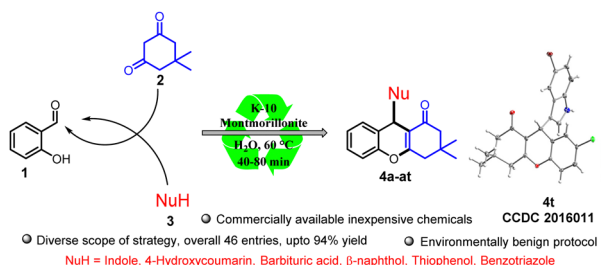
Anna V. Korotina,\* Svetlana G. Tolshchina, Denis A. Gazizov, Alexander S. Steparuk, Grigory A. Kim, Nadezhda S. Demina, Ilya N. Ganebnykh, Pavel A. Slepukhin, Alexey E. Aleksandrov, Alexey R. Tameev and Gennady L. Rusinov



1992

# One-pot construction of highly functionalized 4*H*-chromenes using K-10 montmorillonite in aqueous medium

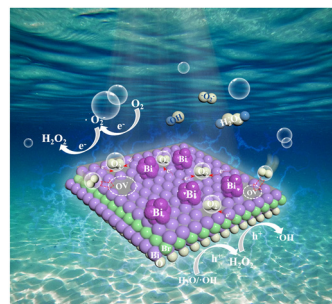
Mohd Yeshab Ansari, Sumedha Swarnkar and Atul Kumar\*



1998

# Synergy of oxygen vacancies and Bi nanoparticles on BiOBr nanosheets for enhanced photocatalytic H<sub>2</sub>O<sub>2</sub> production

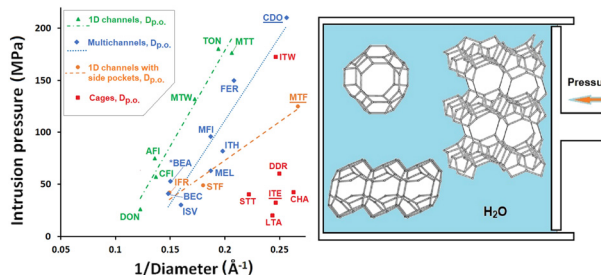
Li Feng, Hanping Fu, Tianxiang Zhang, Qing Zhang, Shufen Ren, Jiayun Cheng, Qingshuang Liang\* and Xiufeng Xiao\*



2008

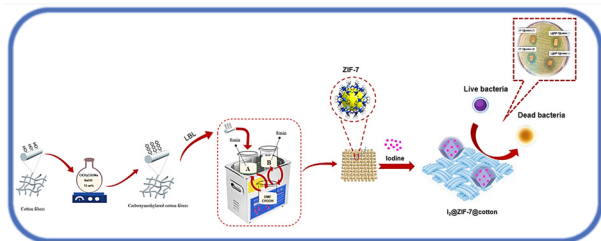
# Structure influence on high-pressure water intrusion in pure silica zeolites

Laura Ronchi, Joël Patarin, Habiba Nouali, T. Jean Daou and Andrey Ryzhikov\*



## PAPERS

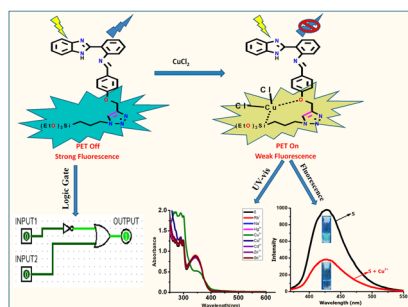
2016



### Iodine-loaded ZIF-7-coated cotton substrates show sustained iodine release as effective antibacterial textiles

Donya Mohammadi Amidi and Kamran Akhbari\*

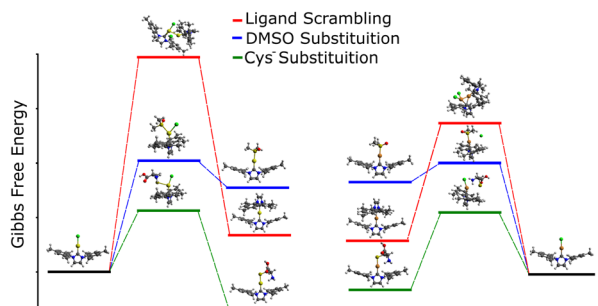
2028



### Benzimidazole-modified organosilane functionalized silica nanoparticles as a 'turn-off' fluorescent probe for highly selective Cu<sup>2+</sup> ion detection: unravelling logic gate behaviour and molecular docking studies

Gurjaspreet Singh,\* Mohit,\* Akshpreet Singh, Priyanka, Sumesh Khurana, Mithun, K. N. Singh, Jasamrit Nayyar and Brij Mohan\*

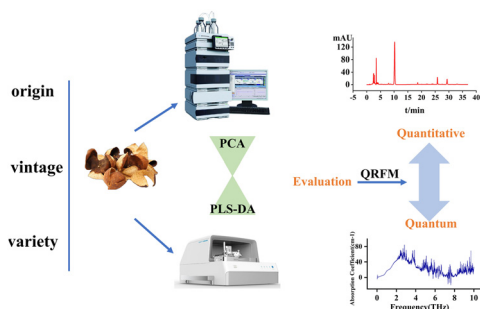
2040



### Unraveling ligand exchange reactions in linear neutral Au(I) and Cu(I) N-heterocyclic carbene complexes for biological applications

Gustavo C. Rodrigues, Manoel V. F. Barrionuevo, Miguel A. San-Miguel and Camilla Abbehausen\*

2048



### Overall control of the quality consistency of Citri Reticulatae Pericarpium by combining HPLC fingerprint, terahertz time-domain spectroscopy and chemometrics

Xinyi Wang, Jiajia Fan, Yong Guo,\* Lili Lan, Qian Li\* and Guoxiang Sun\*

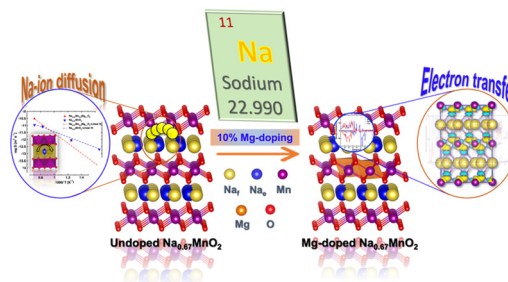


## PAPERS

2063

# Mg-doped cathodic properties and solid-state ionic conduction in P2-type layered material for Na-ion batteries and supercapacitors

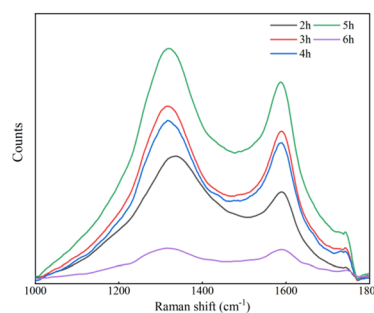
Rachita Panigrahi and Bhabani S. Mallik\*



2073

# Selective production of $\gamma$ -valerolactone from biomass-derived levulinic acid over a Ni/CMK-3 catalyst

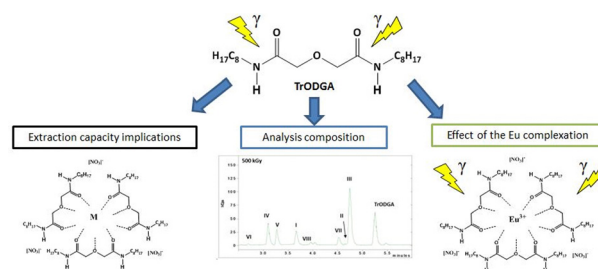
Rui Zhang,\* Xishang Song, Han Wu, Yunqi Zhai, Yina Qiao, Zhihao Yu, Jian Xiong\* and Xuebin Lu



2087

# Radiolytic stability and effects on metal extraction of *N,N,N'*-trioctyldiglycolamide, an important TODGA degradation product

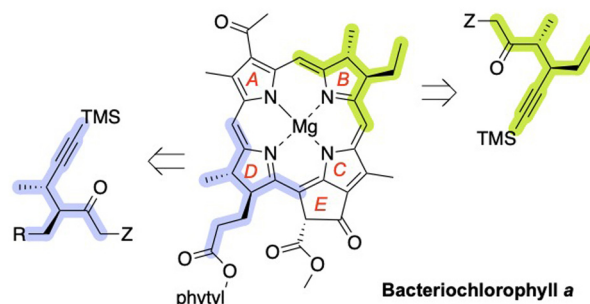
Iván Sánchez-García,\* Richard J. M. Egberink, Willem Verboom and Hitos Galán\*



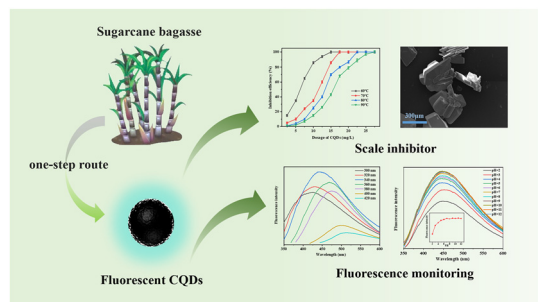
2097

# Synthesis of chiral hexynones for use as precursors to native photosynthetic hydroporphyrins

Khiem Chau Nguyen, Duy T. M. Chung, Phattananawee Nalaoh and Jonathan S. Lindsey\*



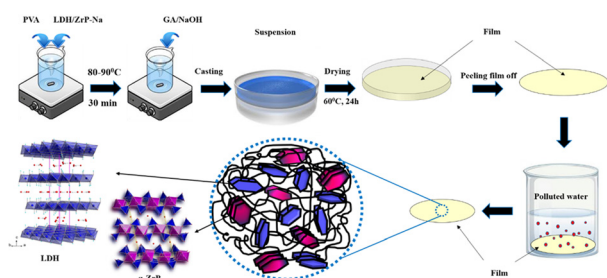
2118



### Green synthesis of fluorescent carbon quantum dots from bagasse: inhibition of calcium sulphate scales

Fangming Yang, Duanzhi Li, Zhihao Chen\* and Wenzhong Yang\*

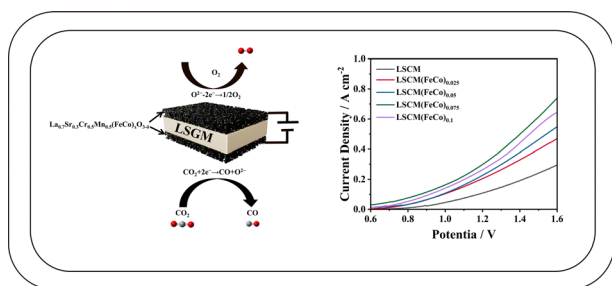
2128



### Composite membranes based on polyvinyl alcohol and lamellar solids for water decontamination

Maria Bastianini,\* Michele Sisani, Eziz Naryyev, Annarita Petracci, Irene Di Guida and Riccardo Narducci\*

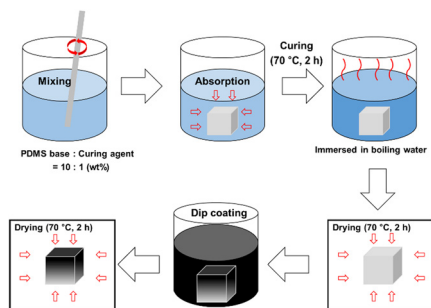
2140



### Construction of a metal-oxide interface through alloy nanoparticles to enhance CO<sub>2</sub> electrolysis

Xu Huang, Hui Sun, Xuwei He, Yunkai Ruan and Lizhen Gan\*

2146



### Development of highly sensitive/durable porous carbon nanotube-polydimethylsiloxane sponge electrode for wearable human motion monitoring sensor

Sung-Jun Lee, Yoon-Gyung Sung, Santhia Kesavan and Chang-Lae Kim\*

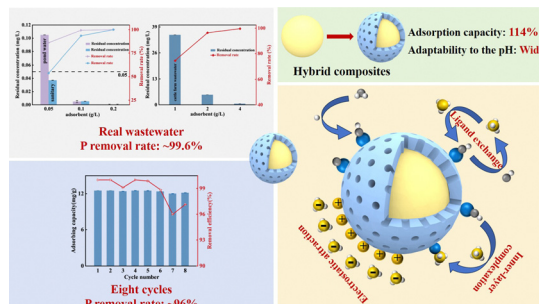


## PAPERS

2155

### Composites hybridized with $\text{Ca(OH)}_2$ and $\text{LaMnO}_3$ synergistically improve phosphate adsorption properties

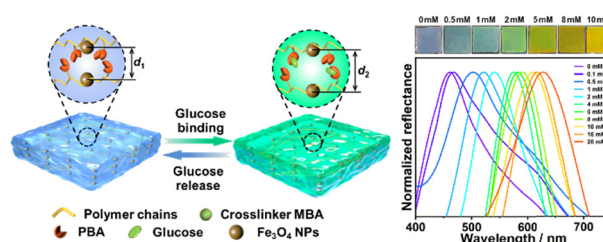
Menghan Feng, Mengmeng Li, Changbin Guo, Xueyan Zhang, Tian Yuan, Keqiang Zhang and Feng Wang\*



2166

### A phenylboronic acid-based smart photonic crystal hydrogel sensor for colorimetric detection of glucose

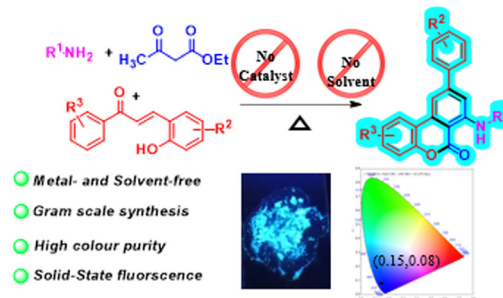
Jingya Wen, Xi Wang, Hairong Yu, Xingbin Lv, Ting Liang\* and Changjing Cheng\*



2175

### Modular three-component synthesis of 6*H*-benzochromenone based blue luminogens under catalyst- and solvent-free conditions

Thangavel Pavithra, Karthiyayini Gnanaoli, Deepan Babu Rajkumar, Arulmozhi Puhazhendhi, Soumya Sivalingam, Natarajan Sampath, Subbiah Nagarajan, Vellaisamy Sridharan and C. Uma Maheswari\*



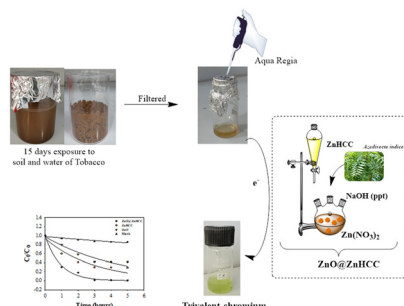
2183

### Electrochemical aminotrifluoromethylation of unactivated alkenes with Langlois' reagent as the $\text{CF}_3$ source

Tongshun An, Xiaowen Qin, Chenwei Liu, Weiheng Yuan, Tanyu Song and Zhiping Yin\*



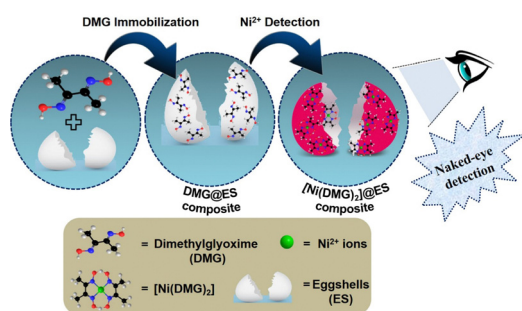
2188



### Estimation and photocatalytic reduction of toxic chromium metal ions from environmental samples by zinc-based nanocomposite

Manviri Rani,\* Jyoti Yadav and Uma Shanker\*

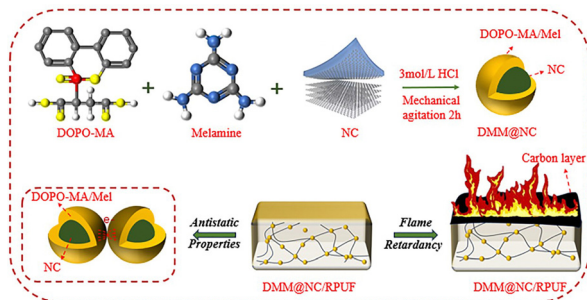
2202



### Ligand-modified eggshells for rapid naked-eye detection and removal of trace level $\text{Ni}^{2+}$ ions

P. Rosaiah, S. Vadivel,\* Kalaivani Dayanidhi, Mohammad Rezaul Karim,\* Ibrahim A. Alnaser, Sambasivam Sangaraju, M. Dhananjaya\* and Sang Woo Joo\*

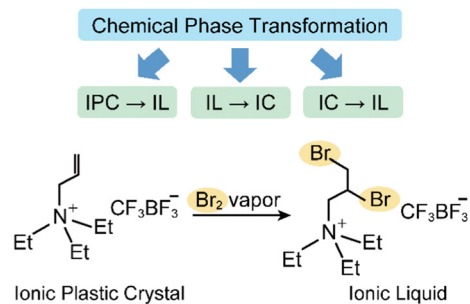
2210



### The preparation and performance evaluation of flame-retardant antistatic composites based on polyurethane

Zhaoshun Zhan, Qixing Shi, Lei Wang,\* Jinfeng Shen, Tianyou Bao, Lixin Li\* and Fanna Meng\*

2219



### Ionic plastic crystals and ionic liquids containing quaternary cations with alkenyl substituents: chemical phase transformations by bromine vapor

Yosuke Nakazono, Ryota Inoue, Ryo Sumitani and Tomoyuki Mochida\*

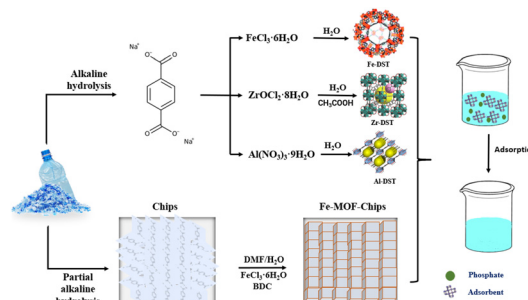


## PAPERS

2226

### Sustainable and shaped synthesis of MOF composites using PET waste for efficient phosphate removal

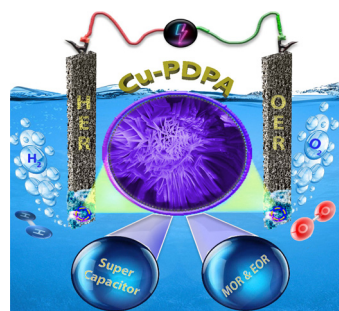
Elmehdi Moumen, Khairuddin Boukayouht, Soraia Elmoutchou, Said Kounbach and Samir El Hankari\*



2236

### Self-supported 3D coral-like copper/poly diphenylamine on nickel foam: multifunctional exploration of overall electrochemical water splitting, alcohol oxidation reaction and supercapacitor applications

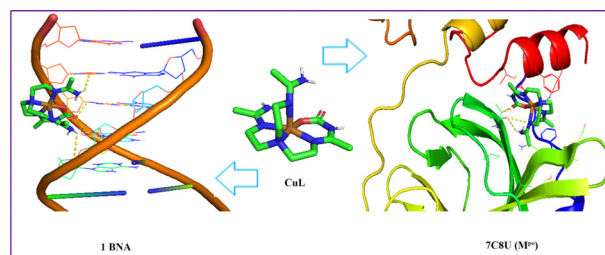
Asha Raveendran, Mijun Chandran, Soo Chool Lee, Masoom Raza Siddiqui, Saikh Mohammad Wabaidur and Ragupathy Dhanusuraman\*



2251

### A new Cu(II) complex derived from the reaction between tris(2-aminoethyl)amine and Cu(I)-activated acetonitrile with potent anticancer activity against some cell lines and high affinity for the essential proteins of SARS-CoV-2

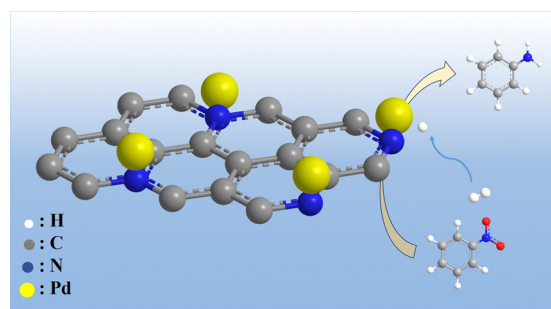
Farshid Hajibabaei, Sadegh Salehzadeh,\* Katayoun Derakhshandeh\* and Robert William Gable



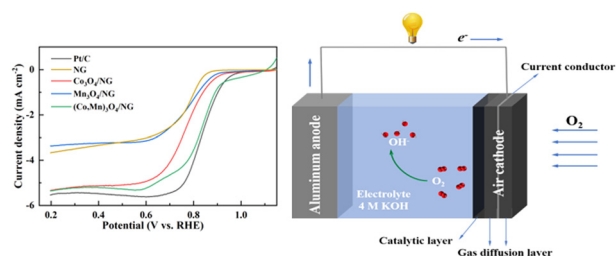
2261

### Efficient room-temperature hydrogenation of nitroaromatic compounds to primary amines using nitrogen-doped carbon-supported palladium catalysts

Yuandie Ma, Huanyu Zhao, Shiyong Zhang, Jie He\* and Zehui Zhang



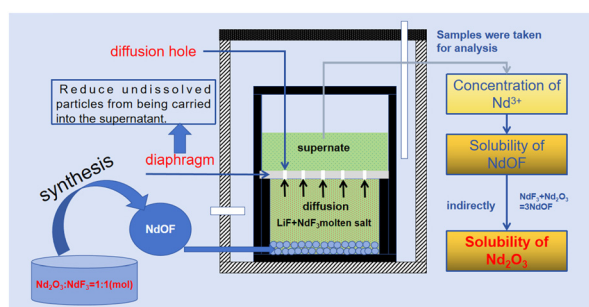
2269



### (Co,Mn)<sub>3</sub>O<sub>4</sub>-doped carbon nanotube composite as a bifunctional electrocatalyst for aluminum–air batteries

Xi Wang, Zhao Li, Lei Liu, Jiuqing Hu, Haobo Shen, Rongrong Li, Zhiqiang Geng, Zunlong Jin\* and Changliang Wang\*

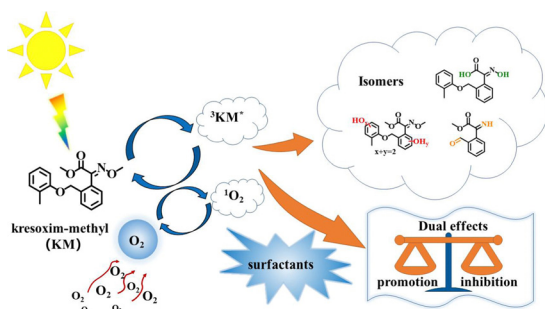
2280



### Solubility of Nd<sub>2</sub>O<sub>3</sub> in LiF and LiF–NdF<sub>3</sub> molten salts

ZanHui Fu, ChunFa Liao,\* Xu Wang, LiangHua Que, Xun Zhou and ShuMei Chen

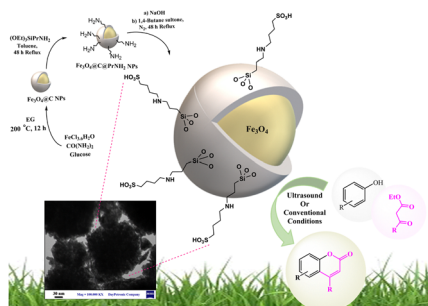
2290



### Aquatic photolysis of strobilurin fungicide kresoxim-methyl: kinetics, pathways, and effects of adjuvants

Xuwei Zhang, Jing Ye, Zhigang Ni, Xuerui Yang,\* Yuefei Ji, Jean-Marc Chovelon, Guangli Xiu and Lei Zhou\*

2299



### Novel butane sulfonic acid-functionalized core–shell magnetic nanocatalysts for ultrasound-assisted coumarin synthesis

Somayeh Soleimani-Amiri\* and Yasaman Salemi

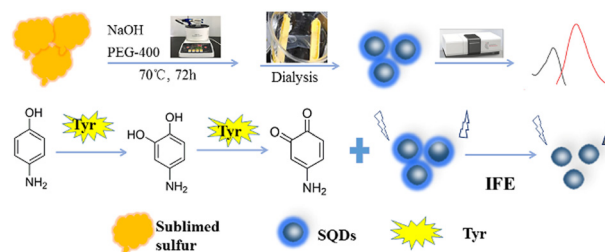


## PAPERS

2311

### Assembly-fission synthesized fluorescent sulfur quantum dots combined with tyrosinase catalytic oxidation for selective detection of *p*-aminophenol in water samples

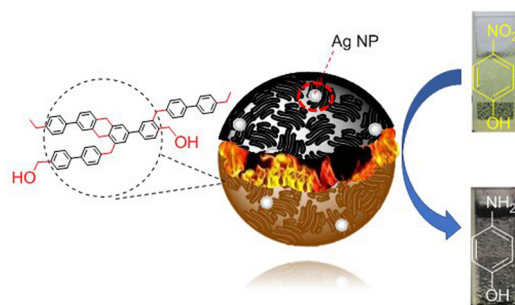
Ming Gao, Chang Bian, Hongjie Zhao, Huili Wang and Xuedong Wang\*



2321

### A nanoporous carbonaceous material with a high surface area: synthesis and application in catalysis

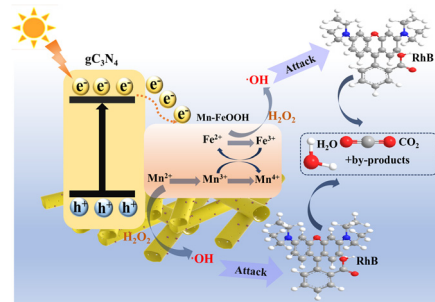
Kailai Zhang, Qiuliang Wang, Zilong Zhong, Yali Luo,\* Jie Liu,\* Yunfei Liu and Yinong Lyu



2327

### Mn-doped FeOOH modified g-C<sub>3</sub>N<sub>4</sub> as a 3D tubular heterogeneous catalyst for photo-Fenton removal of organic pollutants

Liumi Deng, Meng Liao, Xuejing Wei, Zixuan Zou, Shaohua Chen,\* Hua Wang\* and Jiayue Chen\*



2341

### Catalytic investigation of hyaluronic acid-stabilized Ag nanoparticles as non-toxic nanocatalysts in the oxidation of morin

M. Deniz Yilmaz,\* Nezahat Gokce Ozsamur and Sundus Erbas-Cakmak

