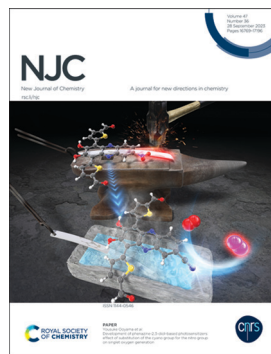


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ISSN 1144–0546 CODEN NJCHES 47(36) 16769–17196 (2023)



### Cover

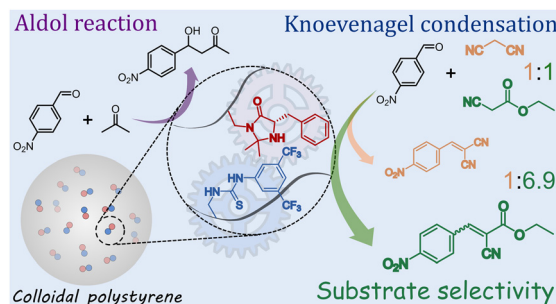
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2023, 47, 16799.

## COMMUNICATIONS

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### Colloidal polystyrene-supported cooperative imidazolidinone/thiourea catalysts for efficient aldol reaction and substrate-selective Knoevenagel condensation in water

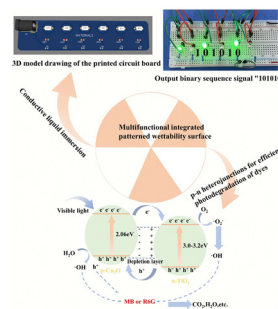
Wei Xiao, Zihao Wang, Jinxiang Yang, Meishuang Qiu, Yan Peng, Xiaorong Xiong, Yizhuo Lu, Tianyou Chen\* and Zushun Xu\*



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### Integrated patterned wettability surface for signal expression and efficient photodegradation of multiple water-soluble dyes

Xian Jiang, Di Yang, Guang Xu, Pengcheng Tang, Fuchao Yang\* and Zhiguang Guo\*



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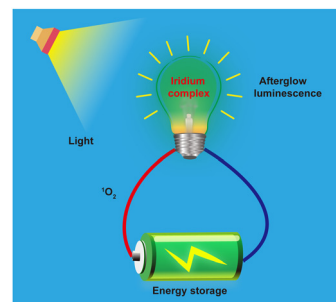


## COMMUNICATIONS

16794

### Autofluorescence-free *in vivo* imaging using a cyclometalated iridium complex with afterglow luminescence

Yawei Liu,\* Yanzhong Li, Tao Pu, Yuetian Pei, Yiwei Fan, Congjian Xu\* and Fuyou Li\*

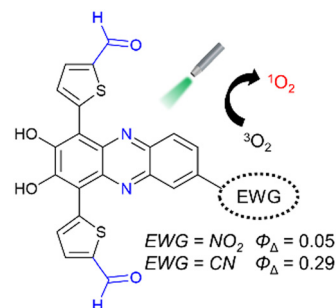


## PAPERS

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### Development of phenazine-2,3-diol-based photosensitizers: effect of substitution of the cyano group for the nitro group on singlet oxygen generation

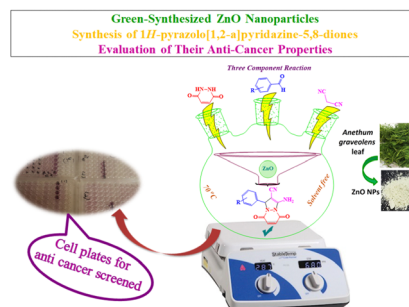
Kazuki Ohira, Chih-Hsin Yu, Keiichi Imato and Yousuke Ooyama\*



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### Catalytic application of green-synthesized ZnO nanoparticles in the synthesis of 1*H*-pyrazolo[1,2-*a*]pyridazine-5,8-diones and evaluation of their anti-cancer properties

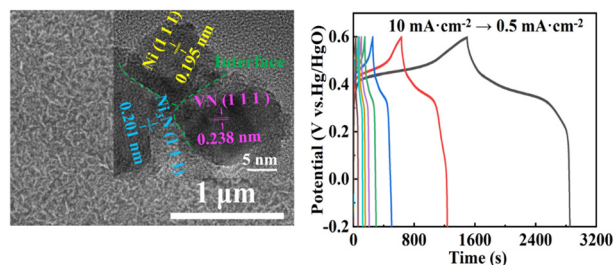
Soma Majedi,\* Faiq H. S. Hussain, Azeez A. Barzinjy,\* Maryam Hosseinpour Tehrani and Farouq E. Hawaiz



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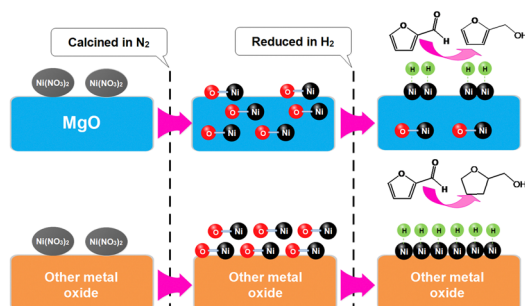
### A V–Ni-based nitride heterostructure as a highly efficient electrode for flexible all-solid-state supercapacitors

Yue Feng, Yu Chen, Lan Yang, Ningna Chen, Ruiqing Liu, Xiujing Lin,\* Wencai Wang and Xiaomiao Feng\*



## PAPERS

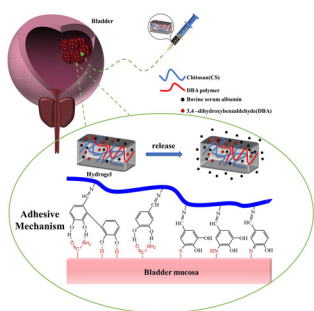
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### Screening of Ni based catalysts supported on metal oxides for liquid-phase hydrogenation of furfural to furfuryl alcohol

Jingbo Qi,\* Yanbiao Ren, Lincai Zhang and Xun Hu\*

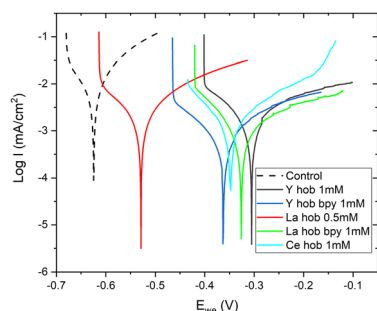
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### Preparation and properties of biocompatible and injectable hydrogels for bladder cancer drug delivery

Xueliang Deng, Dangwei Li, Leming Chen, Zihan Yu, Jingping Qiu, Xin Liang, Ting Huang, Jue Lan, Rongmin Qiu\* and Linbin Jiang\*

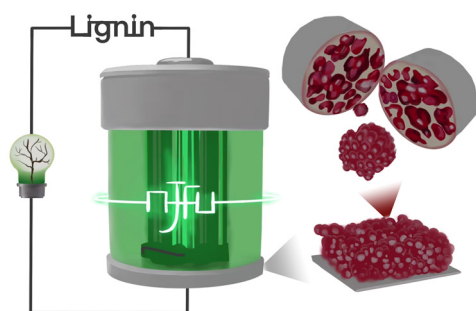
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### 4-Hydroxybenzoato-rare earth(III) complexes – syntheses, a structural goldmine from coordination diversity and improved corrosion inhibition behaviour

Josh Moon, Zhifang Guo, Owen A. Beaumont, Sophie Hamilton, Guillaume Bousrez, Eleanor Mottram, Jun Wang, Anthony E. Somers, Glen B. Deacon and Peter C. Junk\*

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### Pomegranate like silicon-carbon composites prepared from lignin-derived phenolic resins as anode materials for lithium-ion batteries

Penghui Li, Chen Miao, Dairenjie Yi, Yumeng Wei, Tingjun Chen and Wenjuan Wu\*

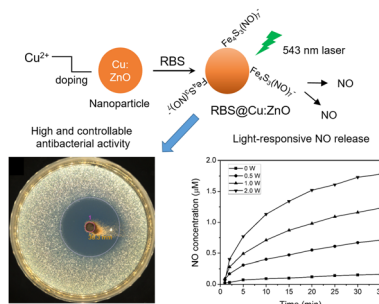


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# Roussin's black salt decorated Cu-doped ZnO nanoparticles for bacterial inhibition

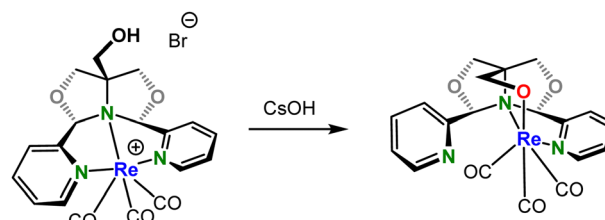
Lingling Lv, Yaoqing Chu\* and Lianjiang Tan\*



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# Synthesis, characterization, and structure determination of bis-oxazolidine complexes of rhenium

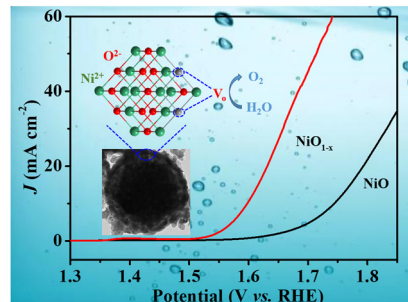
Ryan A. Pohorenec, William W. Brennessel and William D. Jones\*



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# Promoting the electrocatalytic activity through the introduction of oxygen vacancies to core-shell NiO hollow sphere catalysts for efficient oxygen evolution

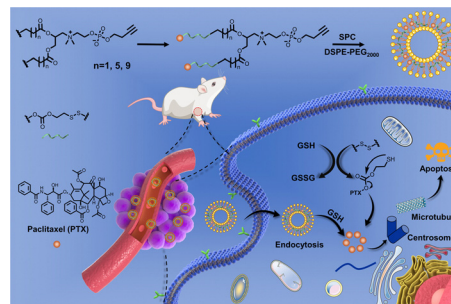
Long Li, Mengcong Jiao, Ben Xu, Shengrong Guo\* and Qiang Hu\*



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# Redox-sensitive dimeric paclitaxel choline phosphate nanoliposomes for improved anticancer efficacy

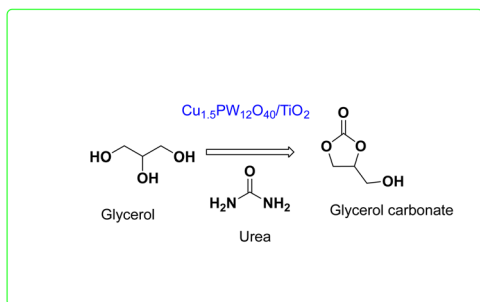
Jinzhong Hu, Zhiguo Gao, Kai Sun, Min Liu, Zining Wang, Jiaying Yu, Wanying Wei, Xiaofan He, Senlin Wang, Yaojia Li\* and Baiwang Sun\*





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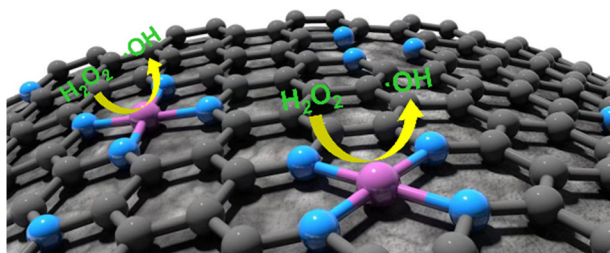
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### Synergetic role of copper-modified phosphotungstic acid supported on titania catalysts for the conversion of bio-glycerol to glycerol carbonate

Balaga Viswanadham,\* Venkata D. B. C. Dasireddy and Balla Putrakumar

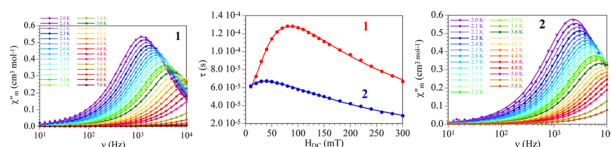
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### Highly efficient $\cdot\text{OH}$ generation in Fenton-like reactions over a bioinspired manganese single-atom site

Man Yang\* and Yujing Ren

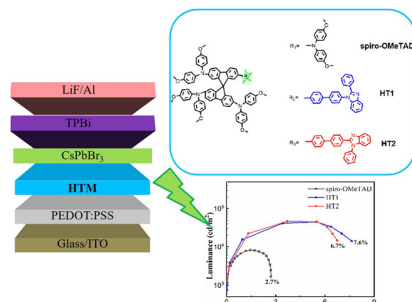
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### Slow relaxation of the magnetization in two cobalt(III)/cobalt(II) dimers

Rabi Sankar Sarkar, Carlos J. Gómez-García, Michael G. B. Drew and Shouvik Chattopadhyay\*

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### Spiro-based hole-transporting materials utilized in green perovskite quantum dot light-emitting diodes with high luminance

Zetian Huang, Xiansheng Li, Guohong Li, Daqing Zhang, Qin Zhang, Xin Luo, Haitao Zhou, Bo Xu,\* Jinhai Huang and Jianhua Su\*

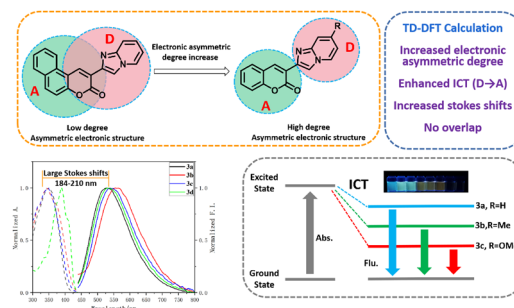


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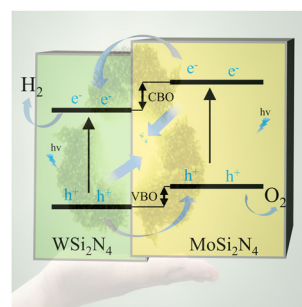
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### High-performance photocatalysts for overall water splitting: type-II $\text{WSi}_2\text{N}_4/\text{MoSi}_2\text{N}_4$ heterostructures

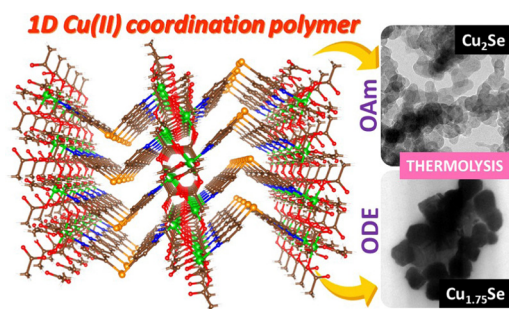
Jiading Bao, Ye Wang, Xiaodong Liu, Rui Zhao,\* Jiabing Yu and Xianping Chen



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### Accessing copper selenide nanostructures through a 1D coordination polymer of copper(II) with 4,4'-dipyridyldiselenide as a molecular precursor

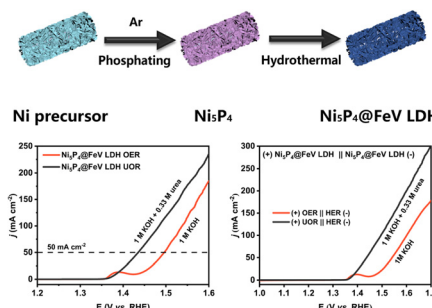
Manoj K. Pal, Gourab Karmakar, Alpa Y. Shah, Adish Tyagi,\* Nattamai Bhuvanesh and Sandip Dey\*



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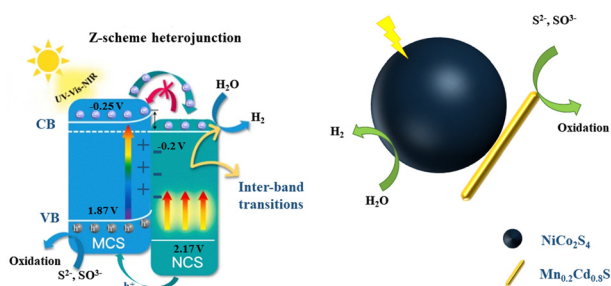
### $\text{Ni}_5\text{P}_4$ -embedded FeV LDH porous nanosheets for enhancing oxygen evolution and urea oxidation reactions

Jibiao Guan, Xiao Li, Yingjing Zhu, Yinchun Dai, Rui Zhang, Baochun Guo and Ming Zhang\*



## PAPERS

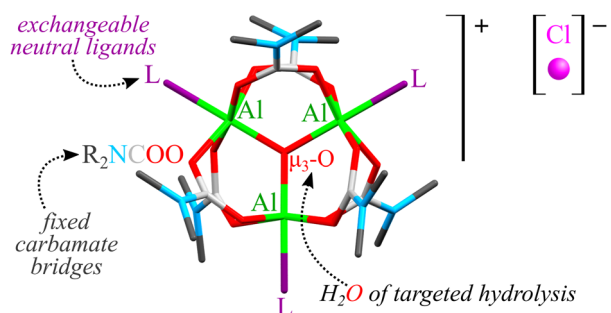
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### 3D nanorod-like $\text{Mn}_{0.2}\text{Cd}_{0.8}\text{S}$ modified by amorphous $\text{NiCo}_2\text{S}_4$ was used for high efficiency photocatalytic hydrogen evolution

Yan Shang, Jing Xu,\* Yue Ma, Zezhong Li and Qian Li

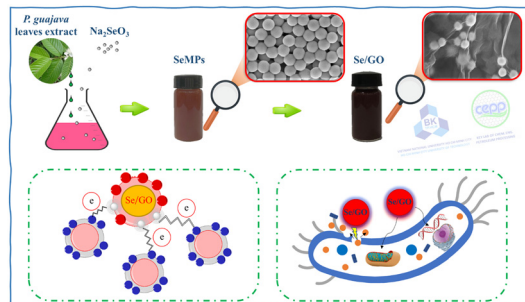
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### Syntheses and ligand exchange experiments of $N,N$ -dialkylcarbamate bridged $\{\text{Al}_3(\mu_3\text{-O})\}^{7+}$ complexes

Erik Schumann, Uwe Böhme, Erica Brendler and Florian Mertens\*

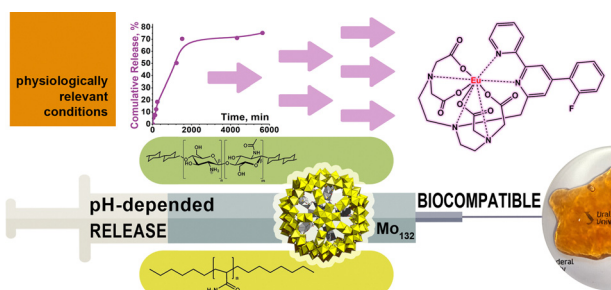
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### Selenium microparticles decorated graphene oxide via green synthesis using *Psidium guajava* leaves: preparation, characterization, and biological activities

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### A polyacrylamide–chitosan semi-interpenetrating self-healing network with embedded Keplerate $\{\text{Mo}_{132}\}$ for pH-controlled release of Eu-fluorescent tags

Kirill Grzhegorzhevskii,\* Ekaterina Rudakova, Alexey Krinochkin, Dmitry Kopchuk, Yaroslav Shtaitz, Lidia Adamova, Grigory Kim, Elena Rusinova and Alisa Shmidt



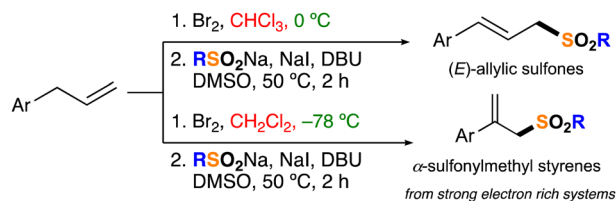


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## Regiodivergent sulfonylation of terminal olefins via dearomative rearrangement

Ever A. Blé-González, Stephen R. Isbel, Olatunji S. Ojo, Patrick C. Hillesheim, Matthias Zeller and Alejandro Bugarin\*

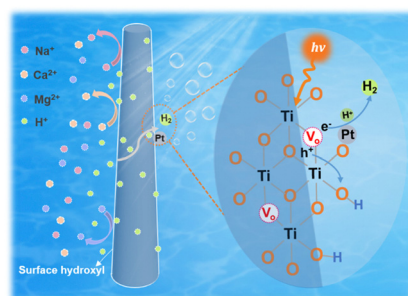


- \*One-pot reaction
- \*Regioselective reaction
- \*Transition metals-free
- \*Access to (E)-allylic sulfones
- \*Access to  $\alpha$ -alkyl styrenes
- \*Tunable methodology

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Enhancing the photo-driven seawater splitting performance of hierarchical  $\text{TiO}_2$  through rich surface hydroxyl and oxygen vacancy design

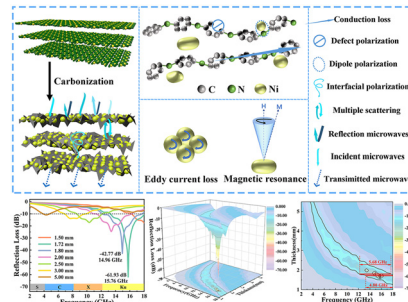
Ya-Jiao Zhang, Shi-Tian Xiao, Yi-Tian Wang, Feng-Juan Wu, Si-Ming Wu,\* Lu Wu, Fu-Fei Pu, Li-Ying Wang, Ge Tian, Cong-Yun Huang and Xiao-Yu Yang\*



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## Ultra-thin Ni@nitrogen-doped polyaniline-derived carbon composites with broadband electromagnetic wave absorption

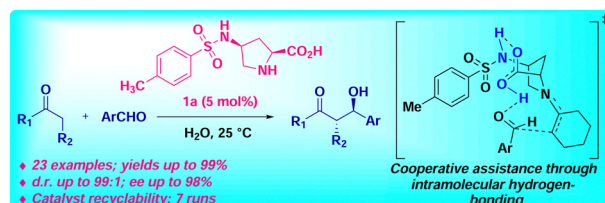
Yan Wang, Guiyang Xian, Chongmei Wu, Zhaolin Zhu, Yin Liu,\* Zhenying Liu and Ling Bing Kong



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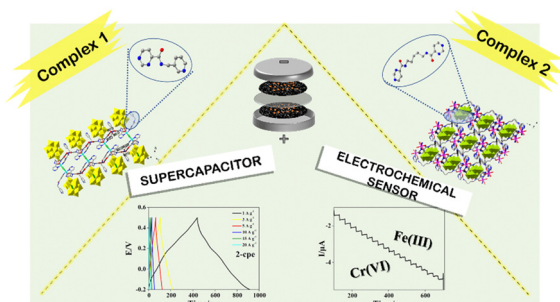
## Cooperative assistance of a sulfonamide in a proline-mediated direct asymmetric aldol addition

Kiran Kumari, Meeta Bhati, Roopendra Singh Madhukar, Akram Gulam Hussain Khan, Prachi Janjani, S. Rajagopala Reddy and Srinivasan Easwar\*



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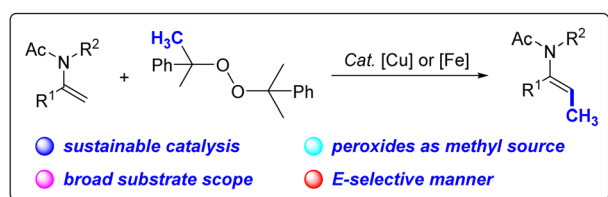
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### Polyoxometalate-based metal-organic supramolecular architectures derived from two new pyrimidine-amide ligands as supercapacitors and multifunctional electrochemical sensors

Xiu-Li Wang,\* Jun-Jun Lu, Hong-Yan Lin, Qian-Qian Liu and Ke-Ke Chen

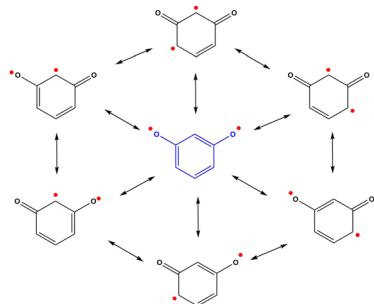
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### Copper- or iron-catalyzed stereoselective methylation of enamides using dicumyl peroxide as the methyl source

Fukuan Zhang, Haidong Liu, Xin-Jian Jia, Lin Li, Yi Liang, Xuzhong Luo and Haiqing Luo\*

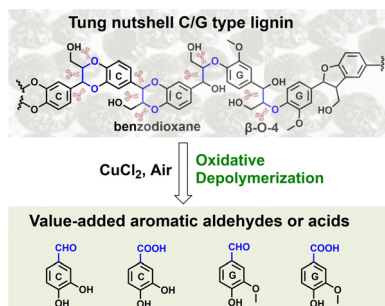
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### Why is the ground state of *m*-benzoquinone a triplet?

Luis Leyva-Parra and Ricardo Pino-Rios\*

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### Catalytic oxidative conversion of C/G-type lignin coexisting in Tung nutshells to aromatic aldehydes and acids

Hongmei Xie, Guozhi Zhu,\* Dawei Ye, Weiquan Cai,\* Junjie Zhang, Kangping Huang, Yuliang Mai, Bing Liao and Jiazhi Chen\*

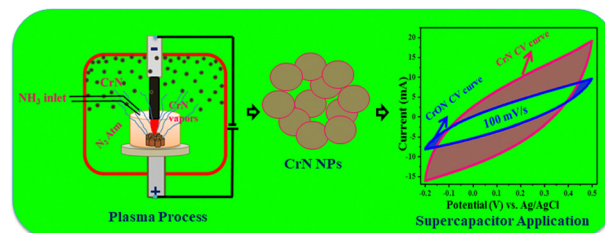


## PAPERS

17080

# Fabrication of carbon-coated chromium nitride (CrN@C) and chromium oxynitride (CrON) nanoparticles by a thermal plasma technique for supercapacitor applications

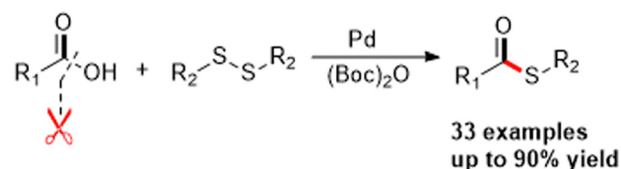
L. Kumaresan, C. Selvakumar, G. Shanmugavelayutham\* and K. Jayasankar



17092

# Palladium-catalyzed convenient synthesis of thioesters from carboxylic acids and disulfides

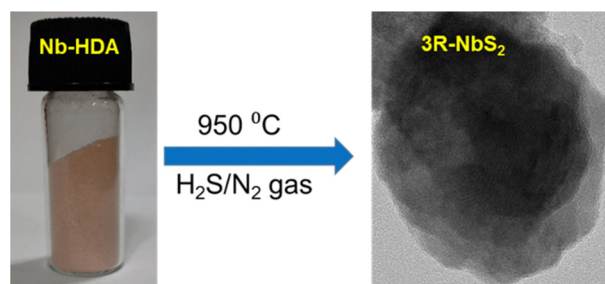
Yong-Mei Xiao,\* Yu Zhao, Jia-Qi Li, Jin-Wei Yuan, Liang-Ru Yang, Pu Mao and Wen-Peng Mai\*



17098

# Synthesis, characterisation, electrocatalytic HER activity, and electrical resistivity of 3R-NbS<sub>2</sub> nanosheets

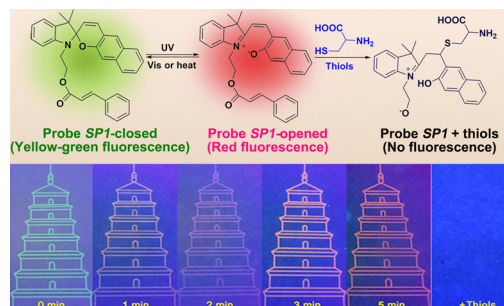
Pallelappa Chithaiah, Sakil Mallick, Devesh Chandra Binwal, Animesh Bhui and C. N. R. Rao\*



17103

# Photoswitchable spiropyran molecules for specific sensing of thiols and fluorescent inks

Tiantian Xu, Xu Zhang, Qian Wang, Shaobing Zhang, Chengkun Wang, Hui Li, Zheng Yang,\* Xiaodan Jia and Xiangrong Liu



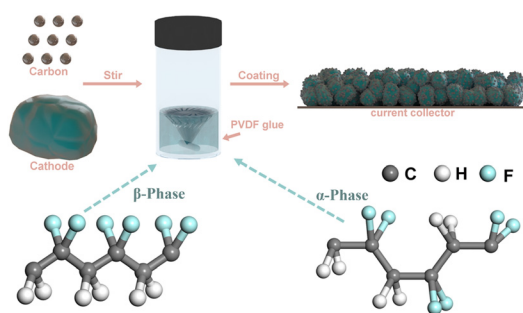
17110



### Development of graphitic-N-based carbon dots using solid-state synthesis for fingerprinting, LEDs, and anticounterfeiting

Ashok Kumar, Rinki Kumari, Kanchan Negi and Sumanta Kumar Sahu\*

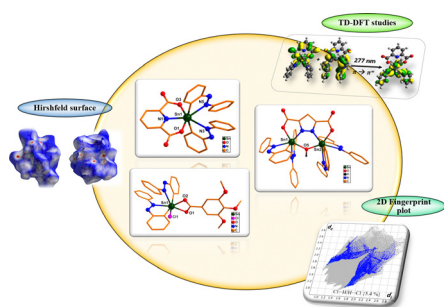
17120



### Effect of slight structural difference in polyvinylidene fluoride binders on the electrochemical performance of single-crystal $\text{LiNi}_{0.5}\text{Co}_{0.2}\text{Mn}_{0.3}\text{O}_2$ cathode

Tangzhe Cao, Huaming Xie, Ying Lei,\* Wei Zou,\* Hui Li, Kang Yang, Tong Zan, Liming Li and Yongxian Fang

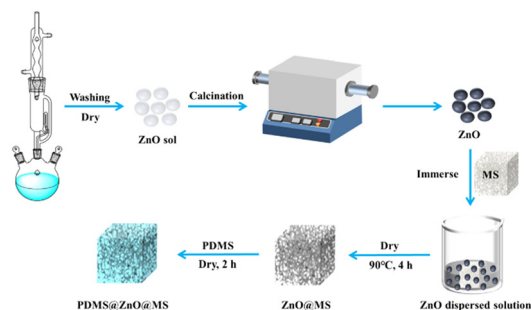
17129



### Stabilization of unusual discrete diorganotin carboxylates using the intramolecular coordination approach: synthesis, structure, TD-DFT, and Hirshfeld surface analyses

Abhishek Mishra, Simran Chaudhary, Nisha Kamboj, Prem Lama, Moumita Majumder\* and Ramesh K. Metre\*

17142



### A dual-functional superhydrophobic PDMS@ZnO@MS sponge for highly efficient oil–water separation and photocatalytic degradation

Dandan Li, Jihong Fu,\* Xinxing Jiang, Yaxue Zhang and Wenxia Xue

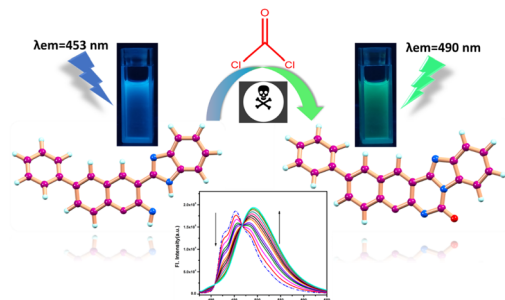


## PAPERS

17154

### An ICT-based organic framework for the fluorogenic detection of lethal pulmonary agent phosgene

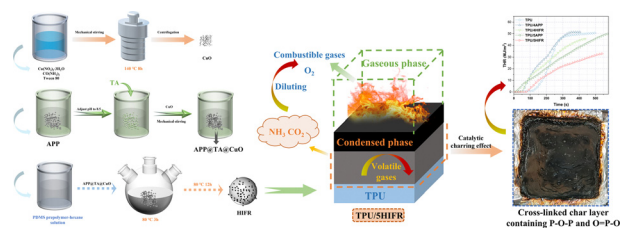
Amitav Biswas, Atanu Maji, Saswati Gharami and Tapan Kumar Mondal\*



17163

### Facile preparation of a hydrophobic intumescent flame retardant toward simultaneously enhanced flame retardancy and smoke suppression of thermoplastic polyurethane

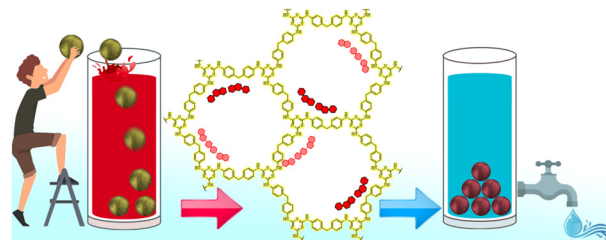
Bihe Yuan, Pengcheng Wang, Quan Fang,\* Man Yang, Xiaoyong Liu, Zhezhe Tan, Qingquan Ding, Guangyi Zhang, Congrui Qi, Zeyang Gao and Jiayi Mei



17174

### An amine-rich porous organic polymer with flexible diarylmethane moieties for adsorptive removal of anionic dyes

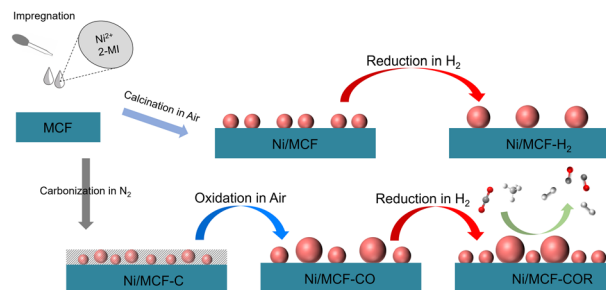
Atena Rashidinia and Mohammad Dinari\*



17186

### Manufacture of highly loaded Ni catalysts by carbonization–oxidation–reduction for dry reforming of methane

Yue Bai,\* Dongyang Shen,\* Guowang Yu, Jie Wang, Shuai Lyu, Yuhua Zhang, Guanghui Wang, Jinlin Li and Lin Li





## CORRECTION

17194

**Correction: The kinetics of uncatalyzed and catalyzed urethane forming reactions of aliphatic diisocyanates with butan-1-ol**

Anett Juhász, Üneri Haymana Serra, Csilla Lakatos, Bence Vadkerti, Anita Rágyanszki, Ödön Farkas, Sándor Kéki\* and Lajos Nagy

