

IN THIS ISSUE

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Cover

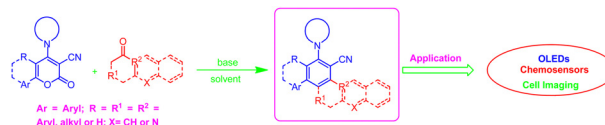
See Hae Sook Park and Young Kee Kang, pp. 15862-15876. Image reproduced by permission of Young Kee Kang from *New J. Chem.*, 2023, 47, 15862.

PERSPECTIVE

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Synthesis of fluorescent aromatic species via ring transformation of α -pyranones and their application in OLEDs, chemosensors, and cell imaging

Manjula Krishnan and Fateh V. Singh*

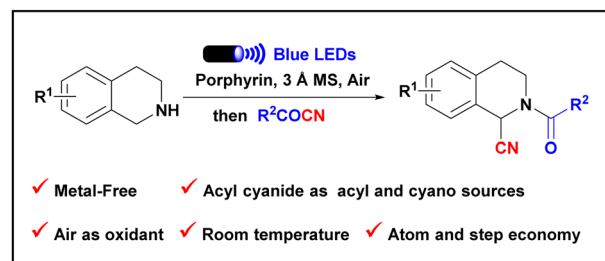


COMMUNICATIONS

15847

A facile one-pot synthesis of *N*-acyl-1-cyano-1,2,3,4-tetrahydroisoquinoline via a photoredox and Reissert-type reaction from 1,2,3,4-tetrahydroisoquinolines

Zi-Yi Yuan, Zheng-Qian Zhang, Jun-Rong Liang, Chu-Yan Lin, Dan-Li Peng, Bao-Dong Cui, Xue-Qing Mou, Yun Zhang* and Yong-Zheng Chen*



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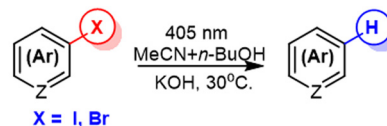


COMMUNICATIONS

15852

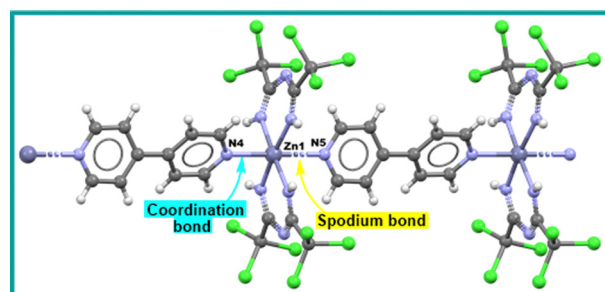
Visible-light-induced, base-promoted transition-metal-free hydrogenation of aryl halides with *n*-butanol

Yiwei Zhu,* Zhimin Wu, Hongcai Sun and Junjun Ding



- Visible-light-promoted C-X ($X = \text{Br, I}$) bond cleavage
- Mild conditions and not need strict inert environment
- Non-involvement of transition metal or photoredox catalysts

15856

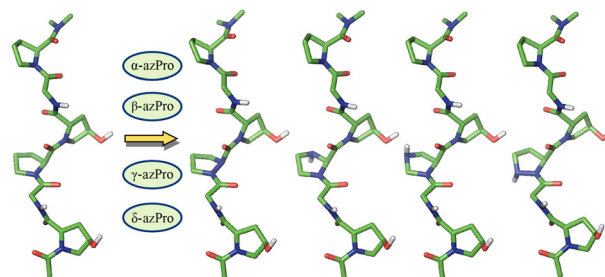
Spodium, halogen and hydrogen bonds in the reactivity of bis(2,4-bis(trichloromethyl)-1,3,5-triazapentadienato)-Zn(II)Ismayil M. Garazade, Atash V. Gurbanov,*
Rosa M. Gomila, Antonio Frontera,* Ana V. M. Nunes,
Kamran T. Mahmudov* and Armando J. L. Pombeiro*

PAPERS

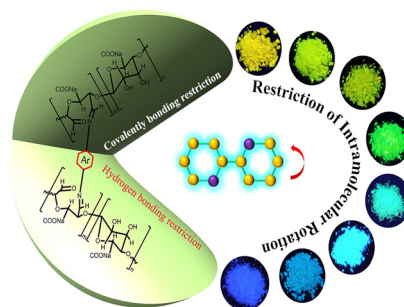
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Conformational preferences of aza-proline residues and their impact on the relative stability of polyproline structures

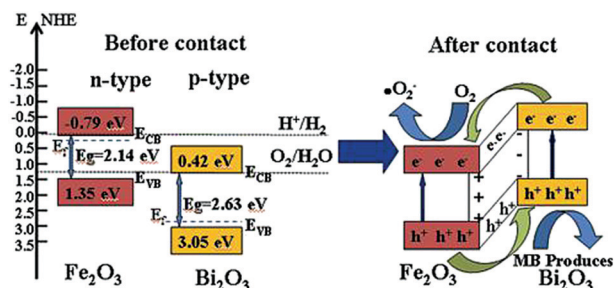
Hae Sook Park and Young Kee Kang*



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Polysaccharide restriction on bipyridyl isomers for multicolor emissionsMinhao Quan, Hongni Chen, Zhenjie Jiang,
Xuchao Wang,* Xiaojing Long* and Yanzhi Xia

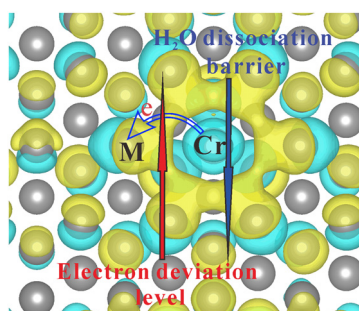
15886



Construction of an α -Fe₂O₃/Bi₂O₃ p–n heterojunction with exceptional visible-light photocatalytic performance for dye removal

Rui Lei, Jinlong Wei, Wanzhu He, Xiuqin Ao, Jinqiang Song,* Chao Wang,* Quanquan Zhang,* Hao Xie,* Jing Li and Jiamiao Ni

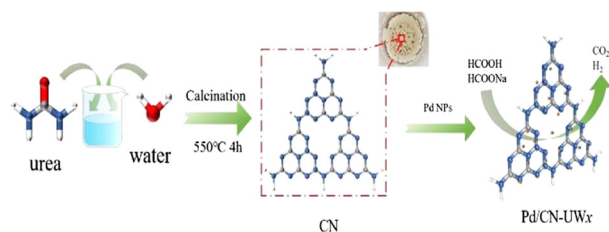
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The effect of metal matrix M (M = Co, Ni, Cu) on the water dissociation performance of oxophilic Cr from density functional theory

Chao Kong,* Yanxia Han, Lijie Hou and Liguao Gao*

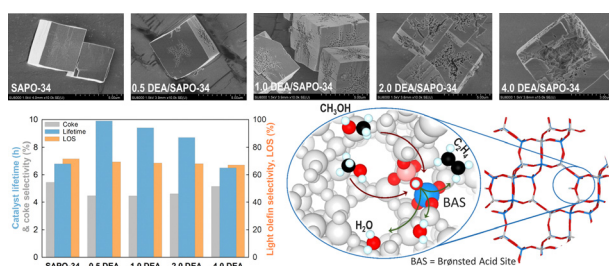
15901



Highly dispersed Pd nanoparticles anchored on carbon nitride for hydrogen production from formic acid

Qing-Fang Deng,* Kun Qian, Jingyu Zhang, Shangkun Ma, Jianjiao Xin, Fengjuan Cui, Chunling Zuo and Lihua Jia*

15907



Uncovering the role of Lewis and Brønsted acid sites in perforated SAPO-34 with an enhanced lifetime in methanol conversion to light olefins

Mohammad Ghavipour, Tiago J. Goncalves, Ralph Al Hussami, Ranjan Roy, Samira Siahrostami* and Jan Kopyscinski*

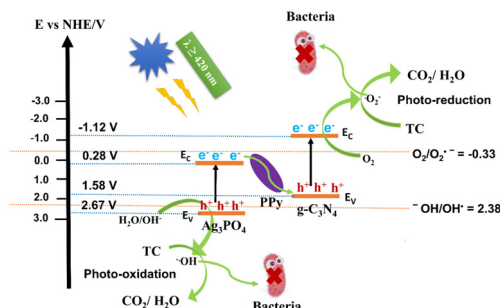


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Fabrication of polypyrrole-sensitized $\text{Ag}_3\text{PO}_4/\text{g-C}_3\text{N}_4$ Z-scheme heterojunction for photocatalytic and antibacterial activity

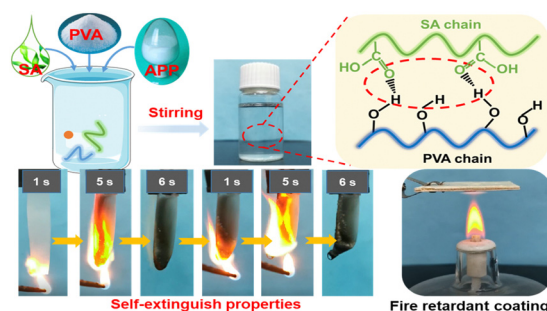
Nisar Ahmad Chopan, Aabid Hussain Bhat and Hamida-Tun-Nisa Chishti*



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Enhanced flame retardant performance of poly(vinyl alcohol) composites based on phosphorus–metal ion synergistic effect

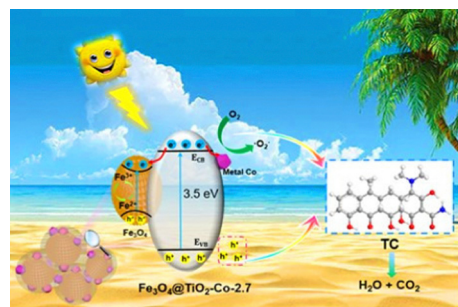
Yide Liu, Jiuyong Yao, Kai Li, Xiankai Li* and Yanzhi Xia*



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Magnetically induced construction of core-shell architecture $\text{Fe}_3\text{O}_4@\text{TiO}_2$ -Co nanocomposites for effective photocatalytic degradation of tetracycline

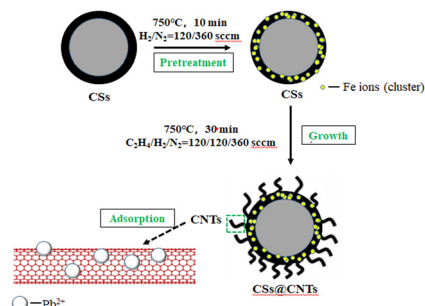
Qingmei Tan, Wensheng Zhang, Tianren Liu, Ying He, Yuangong Ma, Yingxin Yang, Dongxue Han,* Dongdong Qin* and Li Niu



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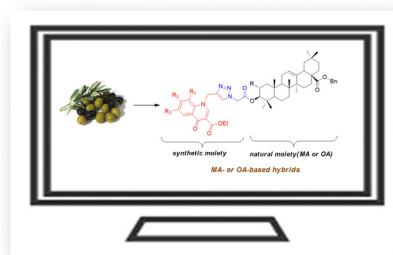
Removal efficiency of Pb(II) by coal fly ash cenospheres@carbon nanotubes

Hongjie Gao, Xiaomin Zhang,* Bo He, Liang Zhang, Ke Wang, Jiaqian Liu, Bing Liu, Zhuang Wang and Jianxiang Ma



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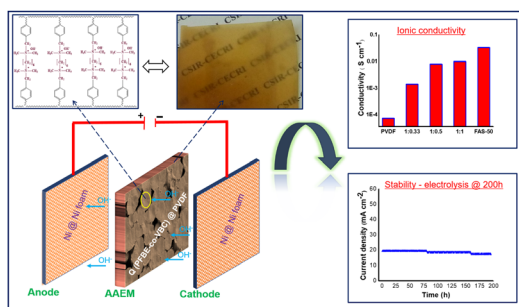
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Design, semi-synthesis and molecular docking of new antibacterial and antibiofilm triazole conjugates from hydroxy-triterpene acids and fluoroquinolones

Besma Boulila, Mabrouk Horchani, Raphael Duval, Mohamed Othman, Adam Daïch, Hichem Ben Jannet, Anis Romdhane* and Ata Martin Lawson*

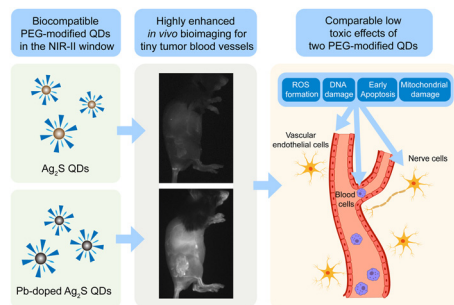
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Highly durable, perfluorinated Q(PFBE-co-VBC) and PVDF blend anion exchange membranes with interconnected morphological features for electrochemical energy conversion systems

S. Hosimin, V. Varshini, A. Kalaiyarasi, S. Vengatesan,* S. Ravichandran, C. S. A. Djadocks and S. Vasudevan

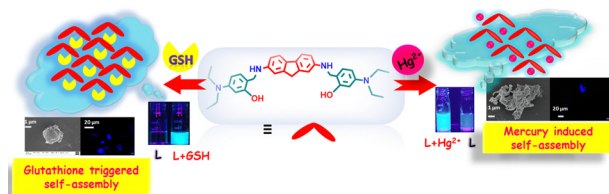
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Doping Ag₂S quantum dots with Pb yields significantly enhanced *in vivo* fluorescence imaging in the NIR-II window and comparable toxic effects

Qingyuan Cheng, Liman Li and Mingxia Yu*

16012



Dual application of a fluorene-based switch-on chemosensor for mercury and glutathione sensing in water: analyte-recognition-triggered self-assembly

Megha Basak and Gopal Das*

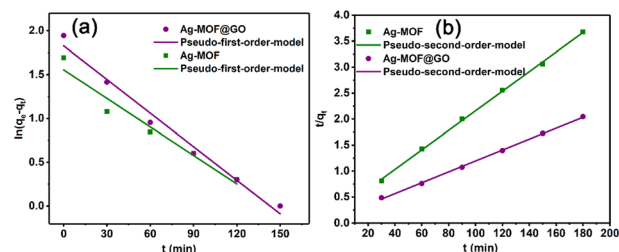


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Design of a novel Ag-MOF@GO composite with a high specific surface area and structural stability for the efficient removal of malachite green

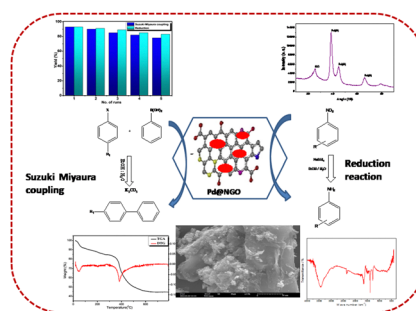
Xingguo Deng, Jingchao Li,* Bo Zhao and Zhihua Li



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Palladium nanoparticles loaded over sheet-like N-doped graphene oxide: investigation of its catalytic potential in Suzuki coupling, in reduction of nitroarenes and in photodegradation of methyl orange

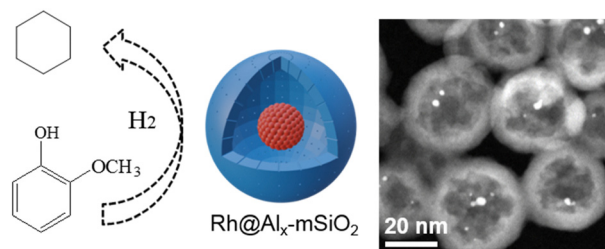
Shubham Sharma, Anjani, Mobina Kouser and Monika Gupta*



16043

Hollow and mesoporous M@aluminosilicate (M = Rh, Pd and Pt) bifunctional catalytic nanoreactors for the hydrodeoxygenation of lignin-derived phenols

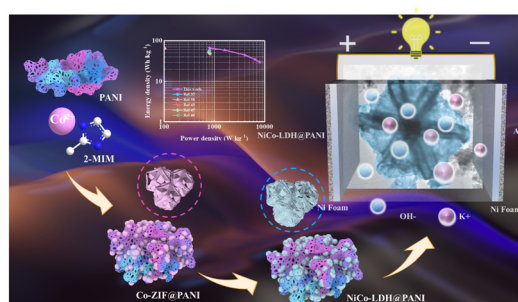
Hongbo Yu,* Fei Zhang, Shuibo Wang, Yang Cong, Shiwei Wang* and Lin Zhu*



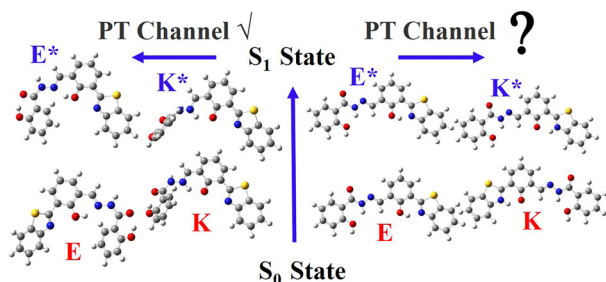
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Integrated battery–capacitor storage system: polyaniline interwoven Co-ZIF-derived hollow NiCo-LDH with enhanced electrochemical properties for hybrid supercapacitors

Hao Guo,* Jiaying Tian, Mingyue Wang, Yuan Chen, Ning Wu, Liping Peng, Yinsheng Liu, Xijia Xu and Wu Yang*



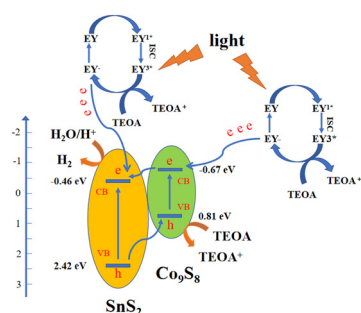
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Theoretical study of the direction of the excited-state intramolecular proton transfer of the HBS molecule

Qiao Zhou,* Hongxiang Wang and Peng Song*

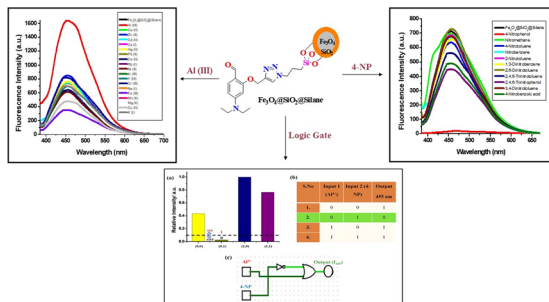
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Amorphous bimetallic sulfide $\text{Co}_9\text{S}_8/\text{SnS}_2$ used as a p–n heterojunction to achieve photocatalytic hydrogen evolution

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

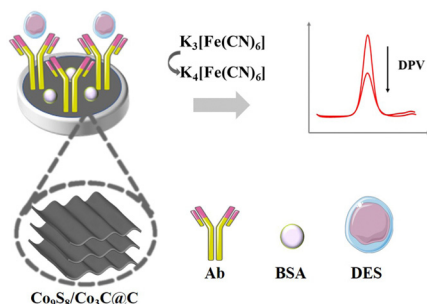
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Organosilane based magnetic silica nanoparticles for the detection of Al(III) ions and construction of a molecular logic gate

Gurjaspreet Singh,* Anita Devi,* Anamika Saini, Diksha, Yamini Thakur, Riddima Singh, Jandeep Singh, Pooja Kalra and Brij Mohan*

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Construction of a label-free electrochemical immunosensor based on a $\text{Co}_9\text{S}_8/\text{Co}_3\text{C@C}$ dual-heterojunction for the detection of diethylstilbestrol

Xin Wen, Yangyang Wang, Jianjun Ding, Xiaojing Dong, Yiqiang Sun and Bo Xu*

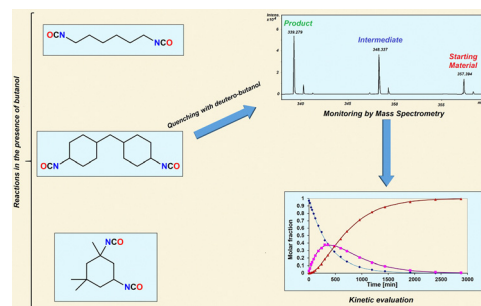


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The kinetics of uncatalyzed and catalyzed urethane forming reactions of aliphatic diisocyanates with butan-1-ol

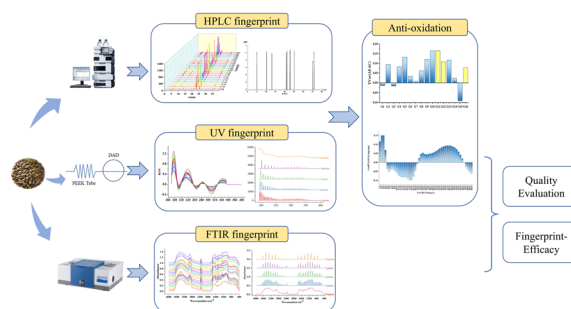
Anett Juhász, Üneri Haymana Serra, Csilla Lakatos, Bence Vadkerti, Anita Rágyanszki, Ödön Farkas, Sándor Kéki* and Lajos Nagy



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Comprehensively evaluating the quality consistency of *Forsythia suspensa* by five-wavelength mean fusion fingerprint profiling combined with spectrum quantum fingerprint and antioxidant activity

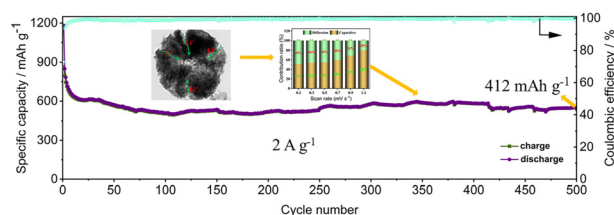
Qian Zhang, Ming Cai, Jiajia Fan, Lili Lan* and Guoxiang Sun*



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Ultrathin nanosheet-decorated honeycomb-like Co₃O₄ porous balls for high performance lithium-ion batteries

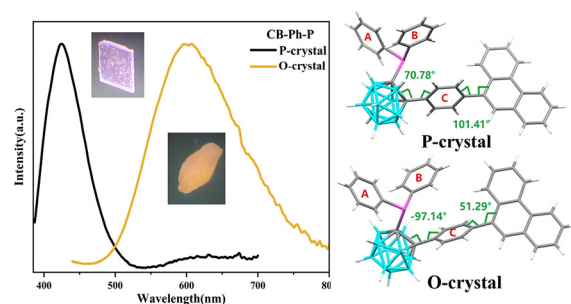
Yumei Wang,* Jimei Song, Fangfang Liu, Xiuting Lang and Lingyun Ren



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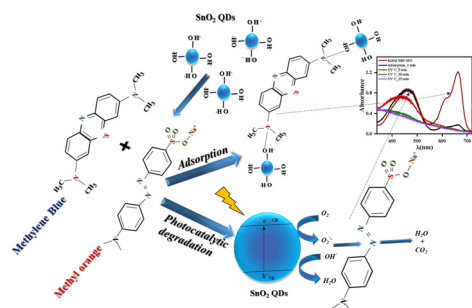
Investigating stimuli-responsive luminescence and aggregation-induced emission properties of o-carborane-based luminophores modified with phenanthrene or anthracene

Li Wang, Rong-Jian Chen, Jian-Feng Yan* and Yao-Feng Yuan*



PAPERS

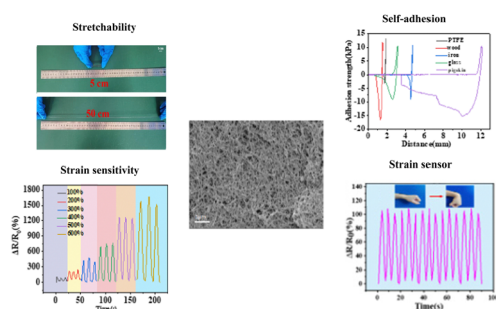
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Uncapped SnO₂ quantum dots for selective adsorption, separation and photocatalytic degradation of a mixture of dyes

T. S. Reshma, Sourav Pan and Arindam Das*

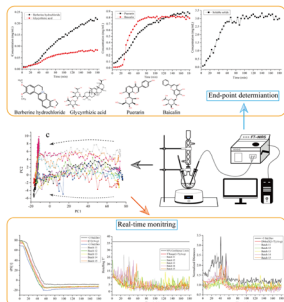
16148



A multifunctional conductive nanocomposite hydrogel for high-performance strain sensors

Jie Ren,* Minmin Zhang, Meng Li, Ruirui Li, Yan Li and Wu Yang

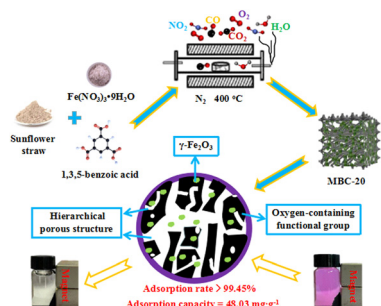
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NIR spectroscopy as a PAT tool for the extraction process of Gegen Qinlian Decoction: end-point determination and fault detection

Sijun Wu, Guoming Zhou, Xiaoyang Zhang, Guangpu Fang, Jiahe Qian, Kun Zhang and Wenlong Li*

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One-step construction of magnetic biochar with a hierarchical porous structure and its adsorption properties

Morigen Bao, Morigejile Liu, Hongye Zhao, Siqin Zhao* and Sin Asuha

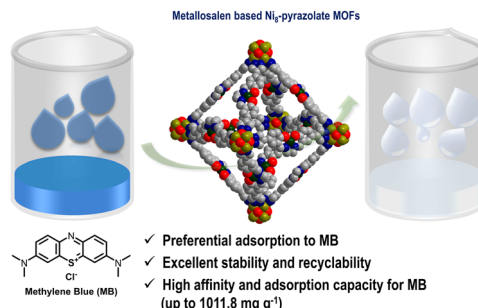


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Highly stable Ni₈-pyrazolate metal–organic frameworks for adsorption of methylene blue from water

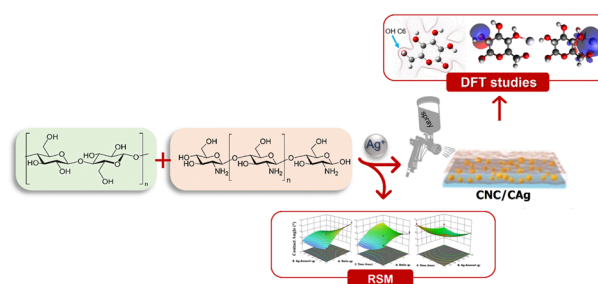
Guo-Qiang Wu, Kun Wu, Ying Wang, Jie Luo, Cong-Ying Zhou* and Weigang Lu*



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Coating based on cellulose from oil palm empty fruit bunches and chitosan doped by Ag⁺: multivariate optimization and DFT analysis

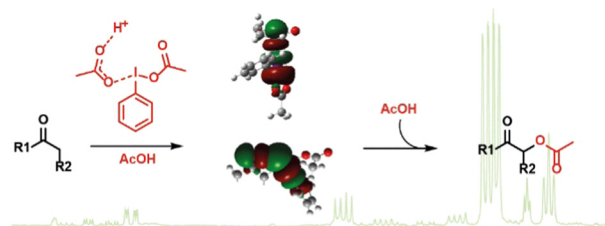
Maulidan Firdaus*, Nurani Alawiyah, Jeessica H. Pratama, Achmad N. Yaqin, Ira Handayani and Fajar R. Wibowo



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Experimental and theoretical study of α -acetoxylation of ketones by (diacetoxy)iodobenzene

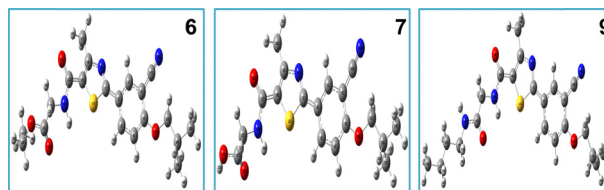
O. J. Quintana-Romero, A. Hernández-Tanguma, J. Camacho-Ruiz and A. Ariza-Castolo*



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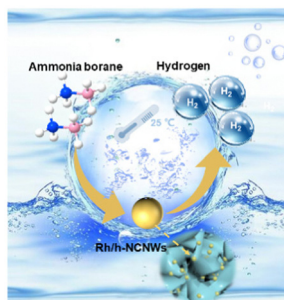
Synthesis and spectral characterization of 4-methylthiazole derivatives: DFT approach and biological activities

Pakkirisamy Sivakumar, Sarangapani Bharanidharan, Rajaram Rajamohan*, Balasubramaniyan Anandhan, Thangavelu Sumathi and Subramaniyan Kamatchi*



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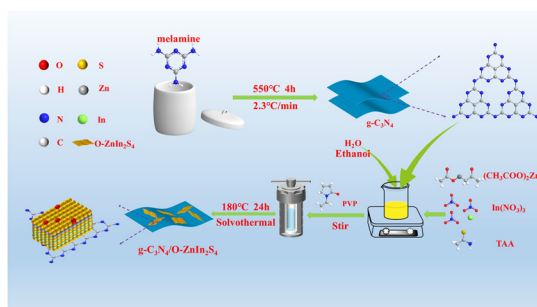
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Architecture engineering toward highly active Rh integrated porous carbon with diverse flexible channels for hydrogen evolution

Hongmin Zhang, Yanfei Luo, Siyu Liu, Jie Wu,*
Guangyin Fan and Xiaojun Yu*

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Synthesis of lamellar O-doped ZnIn₂S₄ on layered g-C₃N₄ for boosted charge transfer and photocatalytic performances

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EXPRESSION OF CONCERN

16245

Expression of concern: Construction of an α -Fe₂O₃/Bi₂O₃ p–n heterojunction with exceptional visible-light photocatalytic performance for dye removal

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