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Cover

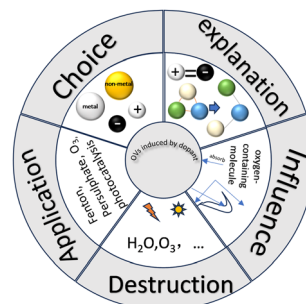
See Kenneth J. Balkus et al., pp. 21159–21167. Image reproduced by permission of Muhammad Abbas from *New J. Chem.*, 2023, 47, 21159.

PERSPECTIVE

21137

The roles of the oxygen vacancies caused by the ion doping method in catalytic materials and their applications in advanced oxidation processes

Jinxin Nie Cui Lai,* Tianjue Hu,* Huchuan Yan, Shiyu Liu, Ling Li, Xiuqin Huo, Xuerong Zhou, Mingming Zhang, Fuhang Xu, Dengsheng Ma, Haoyang Ye, Yixia Li, Neng Wang and Hanxi Li

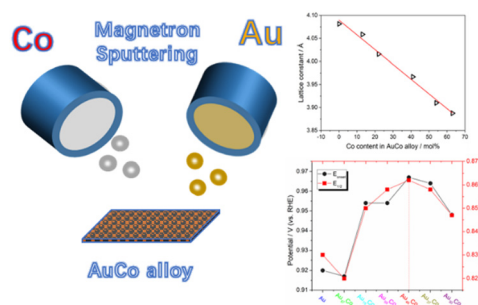


COMMUNICATIONS

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Overcoming the problem of insolubility to controllably synthesize AuCo alloy as a high performance electrocatalyst for the oxygen reduction reaction

Zhandong Ren, Zhiqiang Xie, Ruoxi Ming, Yiping Zhan, Yuefei Xin, Juanjuan Han, Lin Zhuang, Yi Liu and Yuchan Zhu*



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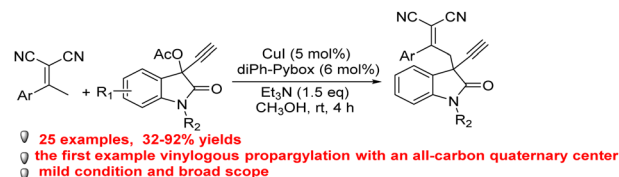


COMMUNICATIONS

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Vinyllogous propargylation of α,α -dicyanoalkenes: construction of an all-carbon quaternary center

Shuhui Lu, Yujie Zhao, Su Xie, Wei Li and Shi-Wu Li*

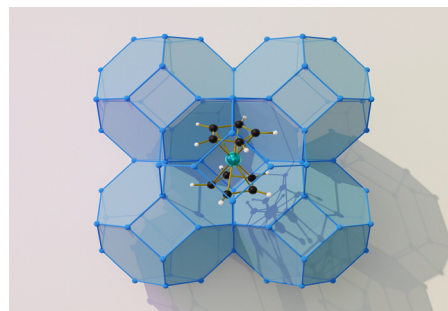


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Encapsulation of cobaltocenium ions in a zeolite-like metal–organic framework

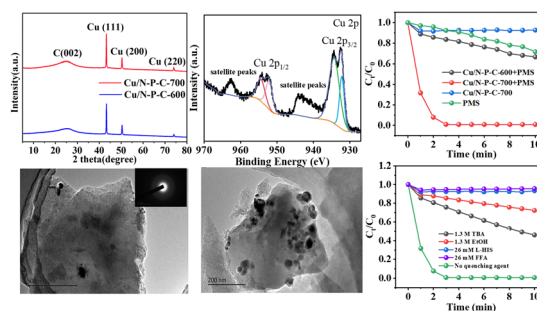
Muhammad Abbas, Anne M. Marti, Arslan Umer, Monu Joy, Ya-Ching Yang, Sue-Lein Wang and Kenneth J. Balkus Jr*



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Facile sol–gel fabrication of Cu/N–P-doped C nanocatalysts for peroxymonosulfate activation towards advanced oxidation of 4-nitrophenol

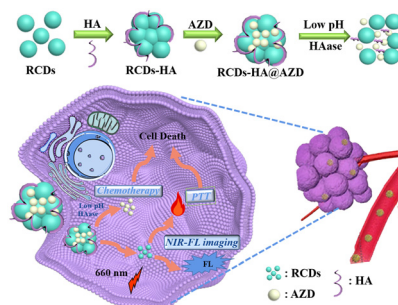
Yadan Wang, Cancan Zhang, Yanchao Shen, Han Wang, Yujie Ma and Pingyun Li*



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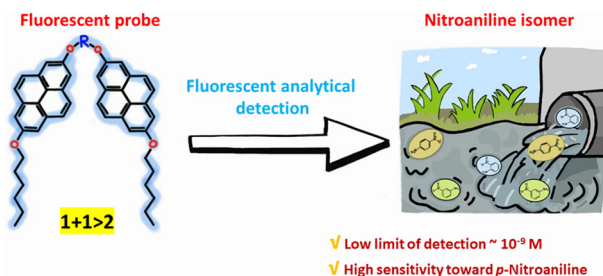
pH/hyaluronidase dual responsive nano drug delivery systems for photothermal/chemotherapy combined treatment for non-small cell lung cancer

Zihan Zhu, Peigang Zhang, Kexin An, Kaihua Zhao, Xianghui Chen, Yuheng Pei, Martin M. F. Choi, Ning Wang* and Wei Bian*



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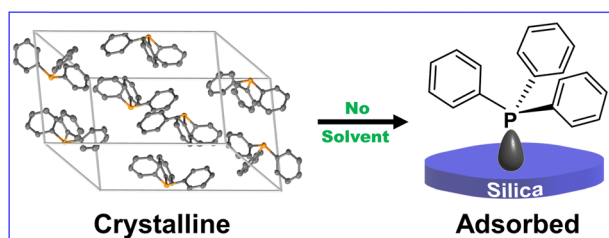
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Synergetic effect of pyrene-based fluorescent probes for trace nitroaniline sensing

Shaoling Li, Wei Liu, Xinyi Song, Chuan-Zeng Wang,*
Carl Redshaw and Xing Feng*

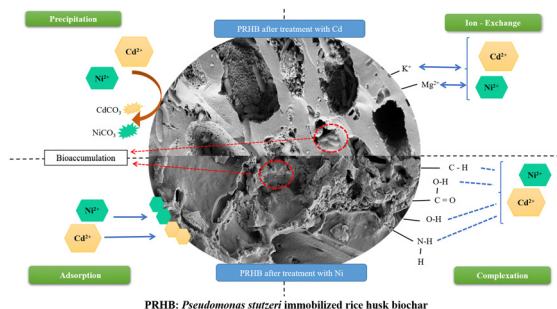
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Adsorption of solid phosphines on silica and implications for catalysts on oxide surfaces

John C. Hoefler, Yuan Yang* and Janet Blümel*

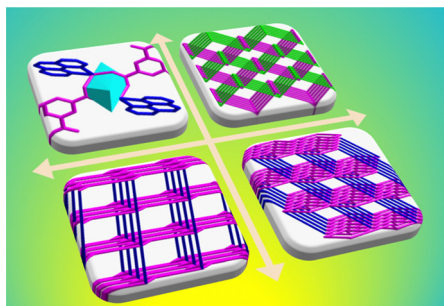
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Developing a biocatalyst showcasing the synergistic effect of rice husk biochar and bacterial cells for the removal of heavy metals

Soumay Koippully Manikandan and Vaishakh Nair*

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Structures and magnetic studies of four new Ni(II) coordination polymers built using symmetrical tetracarboxylate and N-donor linkers

Xiaoyu Zhang, Tianrui Qin, Yichen Liu, Ning An,
Mohd Afzal, Abdullah Alarifi, Mohd. Muddassir,
Hiroshi Sakiyama,* Aurobinda Mohanty* and
Xiuyan Dong*

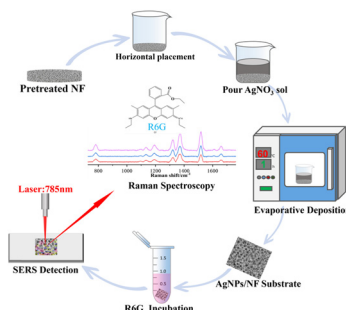


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Vacuum-assisted thermal evaporation deposition for the preparation of AgNPs/NF 3D SERS substrates and their applications

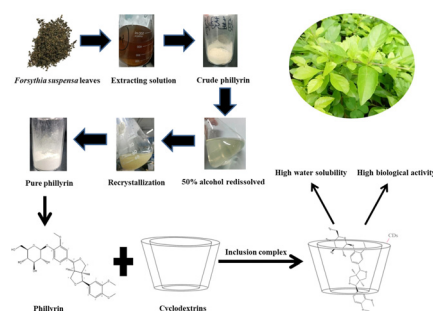
Ziyu Zhou, Atian Xie, Yuanhang Tan, Junfeng Zhang and Changguo Xue*



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Preparation of phillyrin/cyclodextrin inclusion complexes and study of their physical properties, solubility enhancement, molecular docking and antioxidant activity

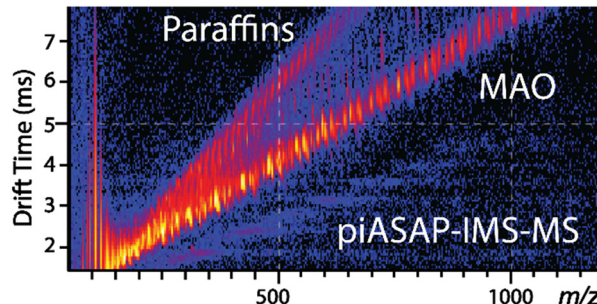
Qiao Qin, Qing-Sheng Zhao,* Hang Li, Yu-Heng Ren, Sheng-hua Zha, Rong-Rong Tian, Jing Li and Shou-bu Hou



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Characterization of modified methylaluminoxane by ion mobility spectrometry mass spectrometry and ultra-high resolution Fourier-transform ion cyclotron resonance mass spectrometry

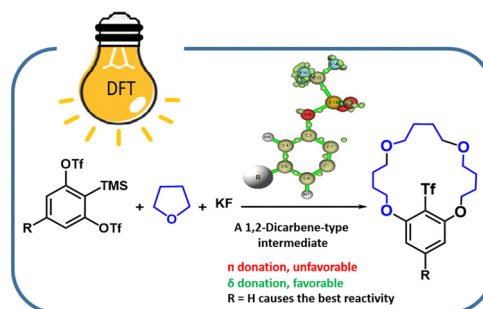
Ahmad Naim, Marie Hubert-Roux, Virginie Cirriez, Alexandre Welle, Aurelien Vantomme, Evgueni Kirillov, Jean-François Carpentier, Pierre Giusti* and Carlos Afonso*



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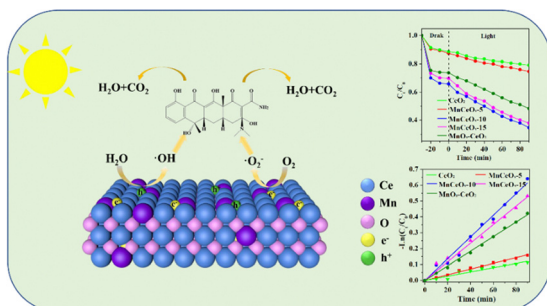
Distortion-controlled 1,2-dicarbene reactivity of 3-triflyloxybenzynes: a theoretical approach

Fatemeh Pirouzi, Hossein Eshghi* and Hossein Sabet-Sarvestani



PAPERS

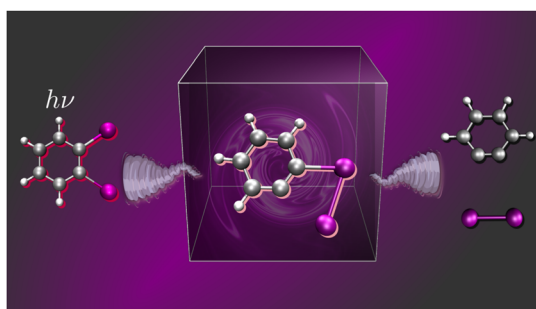
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Hollow sphere manganese–ceria solid solution enhances photocatalytic activity in tetracycline degradation

Huiming Shi, Quanquan Shi,* Jinmei Li and Gao Li*

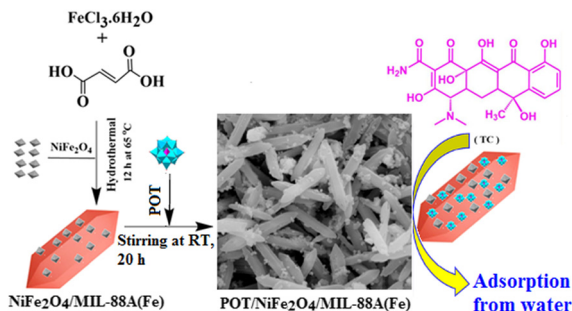
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Mechanistic insights into benzyne formation via 1,2-di-iodobenzene photolysis

Cristian Guerra,* Leandro Ayarde-Henriquez,* Yeray A. Rodriguez-Núñez, Eduardo Chamorro and Adolfo E. Ensuncho

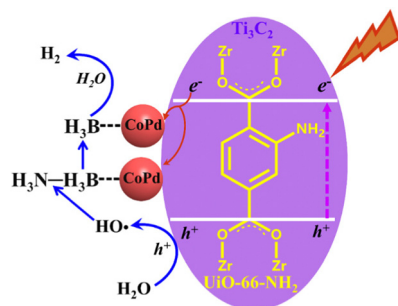
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An MIL-88A(Fe) rod-like metal–organic framework decorated with tungstophosphate polyoxoanions and nickel ferrite nanoparticles for the removal of antibiotics from water

Mona Ashrafi, Saeed Farhadi,* Keivan Javanmard and Farzaneh Mahmoudi

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Photocatalytic dehydrogenation of ammonia borane over Ti₃C₂/MOF-supported Pd-doped Co nanoparticles

Xiaodie Huang, Ziye Liu, Jingjing Tu, Changchun Ji and Ying-Hua Zhou*

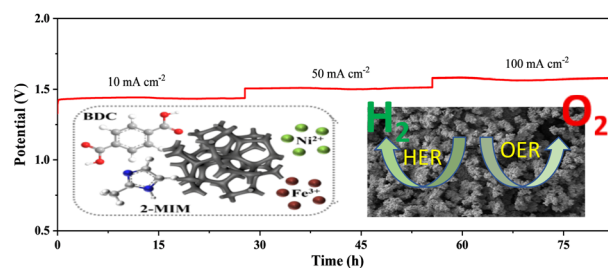


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Preparation of a metal phosphide derived from the dual-ligand NiFe-MOF and its boosted activity toward the electrolysis of water

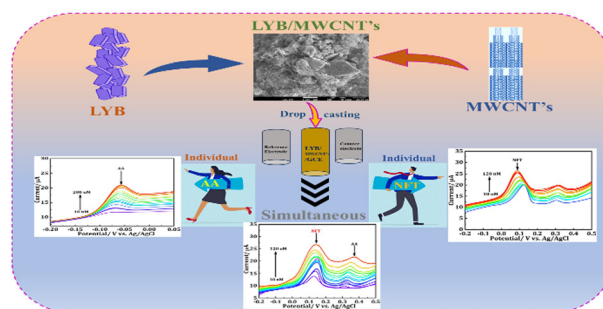
Qing Guo, Lin Wu, Jie Feng, Zhijuan Zou, Chunmei Zeng* and Kunpeng Song*



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Individual and simultaneous electrochemical determination of nitrofurantoin and ascorbic acid in biological samples using a novel La₂YBiO₆ double perovskite deposited on MWCNTs as a nanocomposite

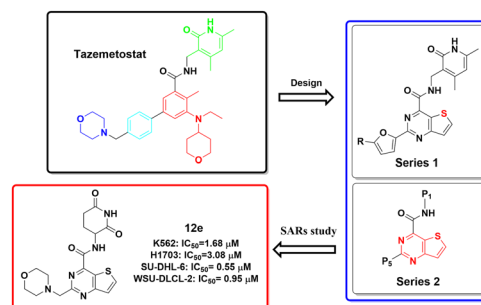
Srujan Basavapura Ravikumar, Sanjay Ballur Prasanna, Santhosh Arehalli Shivamurthy,* Sandeep Shadakshari,* Bhari Mallanna Nagaraja, Jothi Ramalingam Rajabathar and Selvaraj Arokiyaraj



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Design, synthesis, and biological evaluation of novel thieno[3,2-d]pyrimidine derivatives as potent antitumor agents

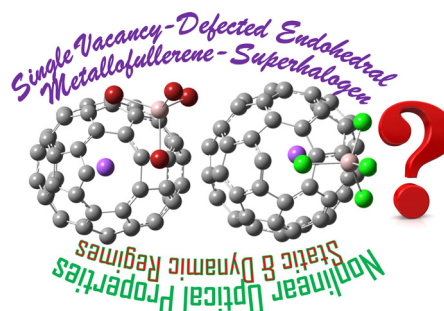
Yadong Zhang, Jiwei Shen, JiaWei Li, Zhi Wang, Yue Wang, Yan Zhu, Shi Ding, YunPeng Zhou, Ye Chen* and Ju Liu*



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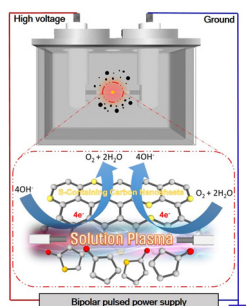
Single vacancy-defect endohedral metallofullerene-superhalogens: molecular topology and nonlinear optical responses of Na@C₅₉[9-4]([8-5])-AlX₄ (X = Cl, Br) systems

Nabil Omri,* Néji Besbes and Yuxiang Bu



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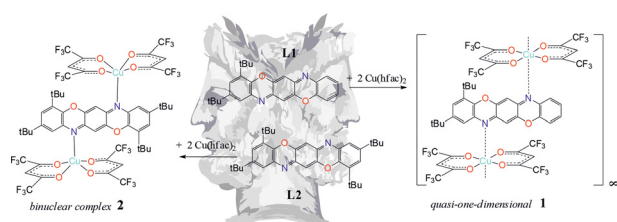
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One-step synthesis of sulfur-containing carbon nanosheets *via* solution plasma process for enhanced electrochemical catalyst

Koangyong Hyun and Sangwoo Chae*

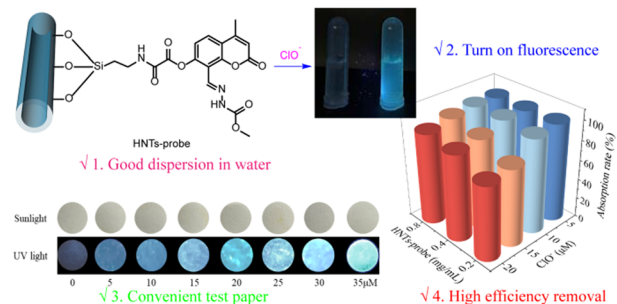
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Field-assisted slow relaxation of magnetization in Cu(II) complexes with pentaheterocyclic triphenodioxazine ligands: the quasi-one-dimensional *versus* the binuclear case

D. V. Korchagin,* E. P. Ivakhnenko, O. P. Demidov, P. A. Knyazev, N. N. Efimov, R. B. Morgunov, A. G. Starikov, A. V. Palii, V. I. Minkin and S. M. Aldoshin

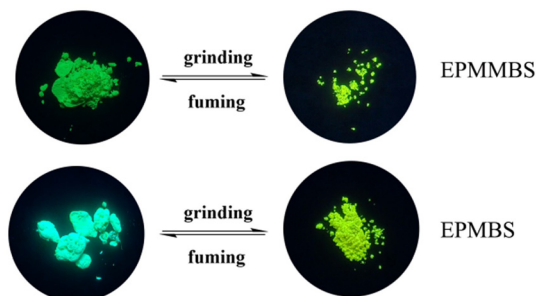
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A dual-functional halloysite nanotube-based nanoprobe for the detection and removal of hypochlorite

Yan Pan, Cuiping Zhou, Shibin Long, Lin Li, Xiongzhi Wu* and Liqiang Yan*

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AIE-active non-planar phenothiazine-based derivatives with mechanical-induced emission enhancement characteristics

Huizhuan Zhu, Jing Zhang, Huijuan Zhang, Chuchu Han, Ting Xu, Jiakun Bai, Peng Jiang and Junhui Jia*

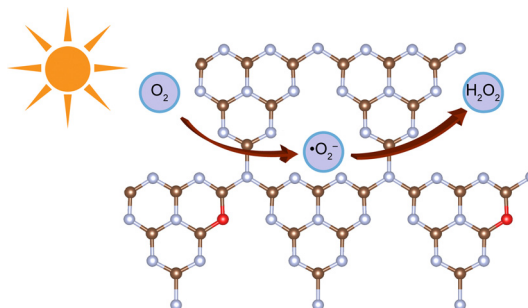


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Facile synthesis of O-doped carbon nitride nanofibers for two-step single-electron oxygen reduction to H_2O_2

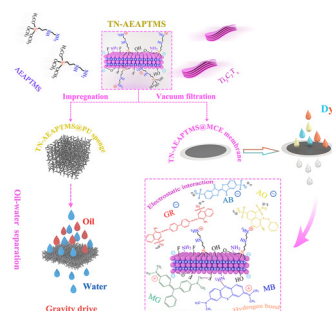
Tingshuo Ji, Xue Wei, Juanjuan Wang, Yuanjing Fan, Ziwei Wang, Shengxian Zhou, Xuefeng Wei,* Baocheng Yang* and Yanzhen Guo*



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Multifunctional applications of amino functionalized $\text{Ti}_3\text{C}_2\text{T}_x$: high flux oil/water separation and dye removal

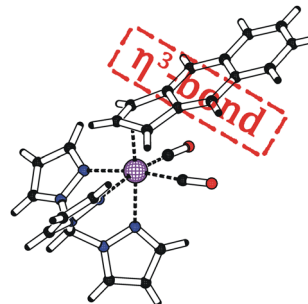
Zhen-Hui Liu, Wei-Qiu Cai, Qing-Ming Wang and Qiu-Feng Lü*



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Benz[e]indenyl and benz[f]indenyl molybdenum compounds: evidence of the η^3 -coordination mode

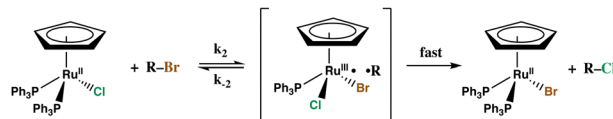
Jiří Štěpán, Jaromír Vinklár, Ivana Císařová, Libor Dostál and Jan Honzíček*



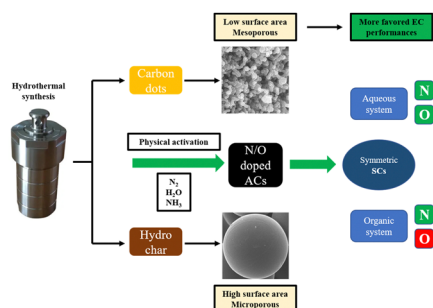
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Kinetics and mechanism of halide exchange in reactions of $\text{CpRu}(\text{PPh}_3)_2\text{Cl}$ with alkyl halides: evidence for radical pairs

Katherine Carney, Lauren Polito, Kamilya Reid, Surbhi Srinivasan, Gabrielle Blake, Nithin Chintala, Sijia S. Dong* and Rein U. Kirss*



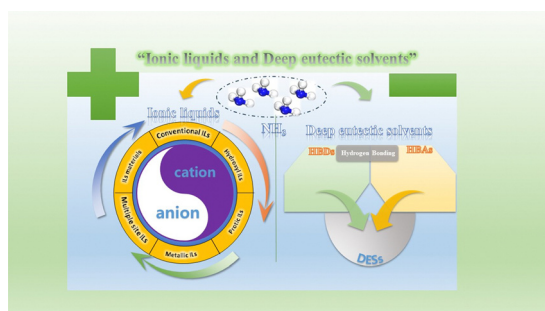
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Mesoporous and microporous carbons from one-pot hydrothermal products for supercapacitor electrodes: effects of porous structures and surface functionality

Siwen Wang, Zhongxing Geng* and Wei Sun*

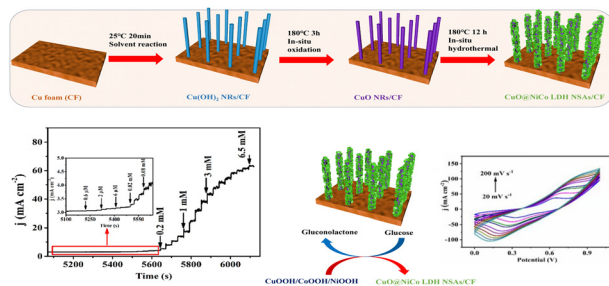
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Ionic liquids and deep eutectic solvents for NH_3 absorption and separation: a review

Ke Li, Kai Zong, Xiuqin Wang, Guokai Cui and Dongshun Deng*

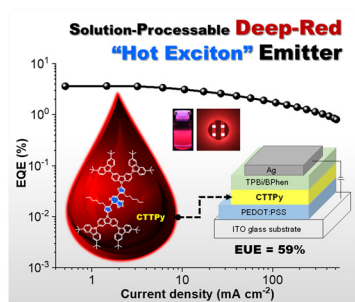
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In situ preparation of hierarchical CuO@NiCo LDH core-shell nanosheet arrays on Cu foam for highly sensitive electrochemical glucose sensing

Ming Yuan, Zhiyuan He, Liwen Tan, Zhangyu Liao, Yujun Liu, Yi Zhang* and Xiaoli Xiong*

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Efficient solution-processable deep-red hot exciton emitters based on thiadiazole[3,4-*c*]pyridine for a simple electroluminescent device

Patteera Funchien, Nuttapong Chantanop, Pongsakorn Chasing, Taweesak Sudyoosuk and Vinich Promarak*

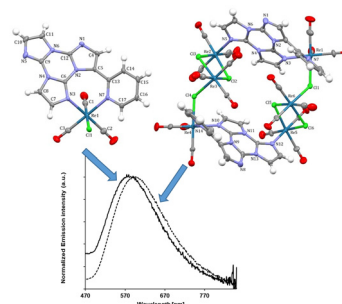


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2-Pyridine cyclic triimidazole as a chelating and bridging ligand in mono- and hexa-nuclear Re(I) complexes with emissive properties in solution and in the solid state

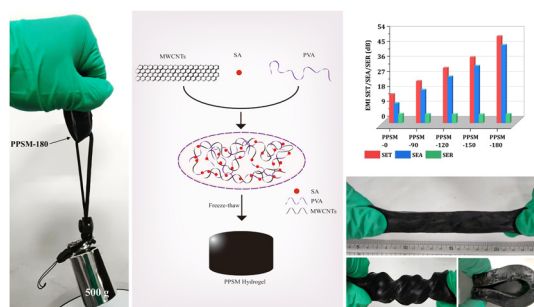
Daniele Malpicci, Daniele Maver, Daniela Maggioni, Pierluigi Mercandelli, Lucia Carlucci, Elena Cariati, Patrizia Mussini and Monica Panigati*



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Mechanical, robust and conductive eco-friendly self-assembling hydrogel: a novel material for electromagnetic shielding

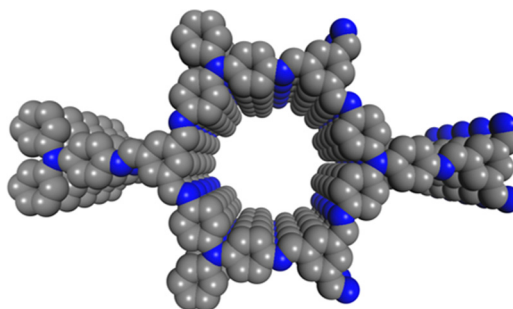
Yuhuan Xu, Meng Pei, Xiao Zhan, Hongwei Wang, Daohai Zhang* and Shuhao Qin*



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Construction of microporous covalent organic frameworks for high gas uptake capacities

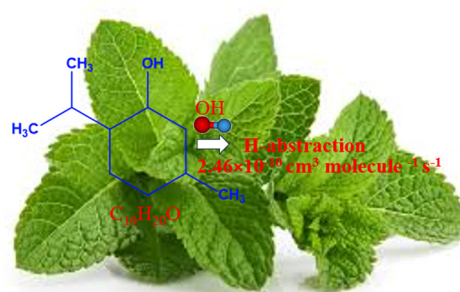
Chunyu Zhang, Yanning Zhao,* Jiajun Li, Yuwei Zhang, Dongxue Wei, Ce Xing and Xiaolong Luo*



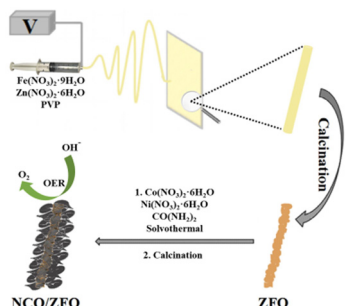
21490

Mechanism and kinetics of atmospheric degradation of menthol initiated by hydroxyl radical

Angappan Mano Priya and Basheer Azaad*



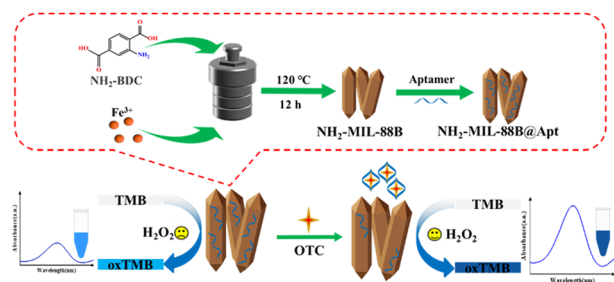
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ZnFe₂O₄ nanofibers decorated with NiCo₂O₄ nanosheets as an efficient electrocatalyst for the oxygen evolution reaction

Xianchun Liu and Yan Xing*

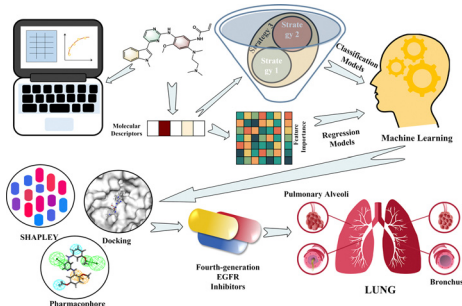
21505



A colorimetric aptasensor based on NH₂-MIL-88B for highly selective detection of trace oxytetracycline in water

Yuhao Lu, Tao Wang, Chengshun Tang, Qijian Niu* and Tianyan You

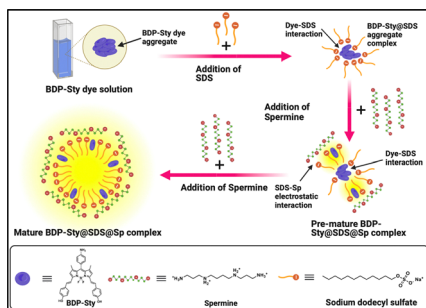
21513



Machine learning method aided discovery of the fourth-generation EGFR inhibitors

Yu Zhang and Yan Li*

21526



A simplified and cost-effective detection of cancer bio-markers using BODIPY and surfactant-templated fluorogenic self-assembly

Soumyadeep Sarkar, Sudip Gorai, Akhilesh Potnis, Padma Nilaya Jonnalagadda, Soumyaditya Mula and Goutam Chakraborty*

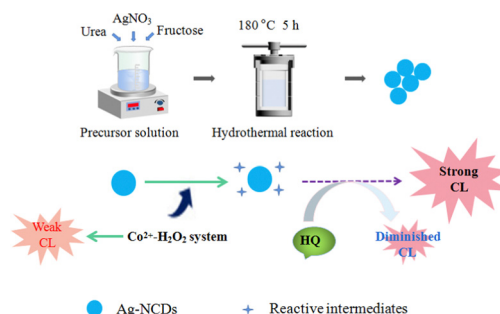


PAPERS

21533

Ag and N-doped carbon dot-enhanced H_2O_2 - Co^{2+} chemiluminescence and its application for the determination of Co^{2+} and hydroquinone

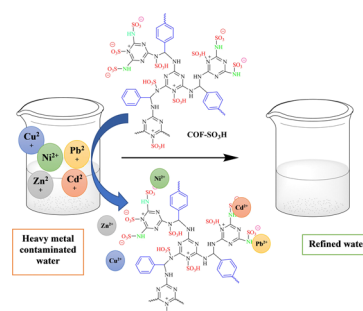
Xiaowei Wang, Zixuan Wang, Yamei Jiang and Suqin Han*



21540

Simultaneous removal of heavy metal ions by a sulfonic acid-functionalized melamine-based covalent organic framework: optimization by response surface methodology

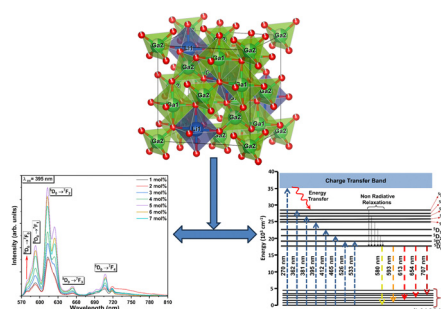
Asieh Salami, Arash Larki* and Seyyed Jafar Saghanezhad



21553

Effect of Eu^{3+} doping on the structural, optical, and photoluminescent properties of LiGa_5O_8 phosphor

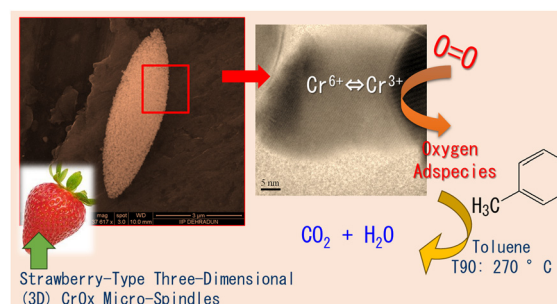
Umer Mushtaq and Vijay Kumar*



21568

Tailoring oxygen vacancies and active surface oxygen species in CrO_x hierarchical strawberry-type three-dimensional (3D) micro-spindle catalysts for total catalytic oxidation of VOCs

Shankha S. Acharyya,* Swati Rana, Sachin K. Sharma, Mukesh K. Poddar, Vinod Kumar, Takehiko Sasaki, Shilpi Ghosh* and Rajaram Bal*



CORRECTION

21577

Correction: A sequential Ugi–Smiles/transition-metal-free *endo*-dig Conia–ene cyclization: the selective synthesis of saccharin substituted 2,5-dihydropyrroles

Hassan Seyrani, Sorour Ramezanpour,* Aref Vaezghaemi and Farzad Kobarfard

