

IN THIS ISSUE

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Cover

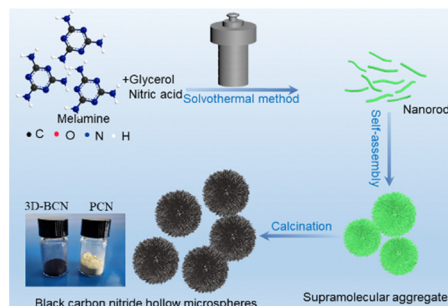
See Beatriz Chafer-Dolz, José P. Cerón-Carrasco *et al.*, pp. 17234–17243. Image reproduced by permission of José P. Cerón-Carrasco from *New J. Chem.*, 2023, 47, 17234.

COMMUNICATIONS

17212

Enhancing visible light absorption for efficient CO₂ reduction with black carbon nitride hollow microspheres

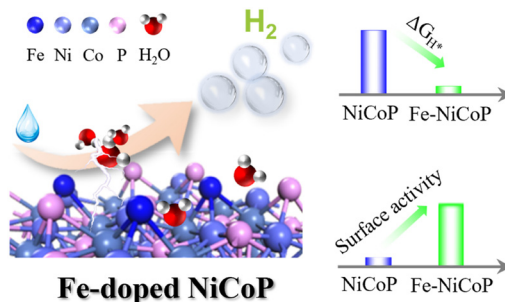
Guohuan Wang, Longda Hu and Zhiqiang Jiang*



17216

High surface activity of Fe-doped NiCoP for the hydrogen evolution reaction

Shifan Zhu, Yixue Xu, Dong Li, Lili Song and Yuqiao Wang*



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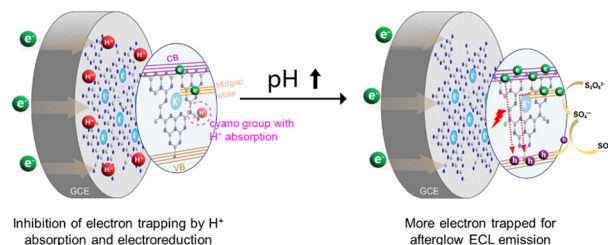


COMMUNICATIONS

17220

Modulation of afterglow electrochemiluminescence from nitrogen-deficient graphitic carbon nitride by pH

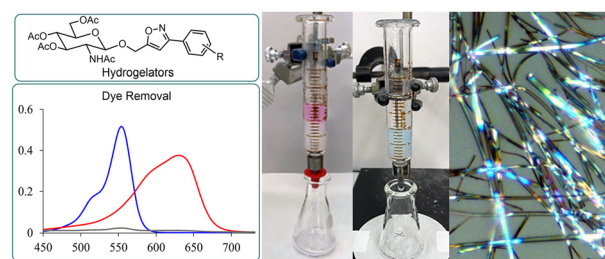
Lichan Chen,* Xuetao Jia, Weiye Zhao, Sixuan Cheng and Shu-Feng Zhou



17224

Sugar isoxazole based hydrogelators and their applications as reusable hydrogels for dye removal

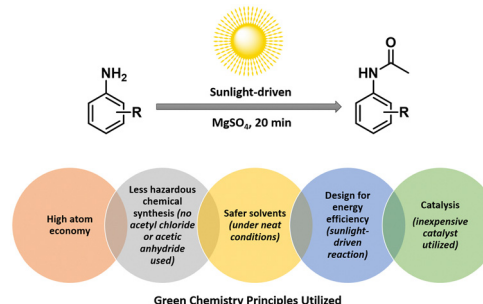
Pramod Aryal, Surya B. Adhikari, Anna Duffney and Guijun Wang*



17229

Sunlight-driven *N*-acetylation of anilines: a green chemistry approach

Ashu Gupta,* Indu Tucker Sidhwani, Radhika Gupta, Yukti Monga and Rakesh Kumar Sharma

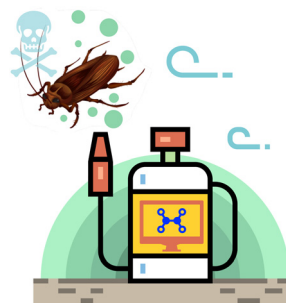


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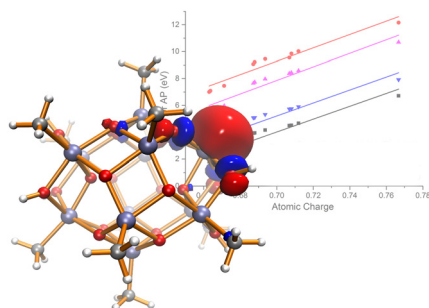
17234

Insecticide discovery by drug repurposing: new synergistic inhibitors against *Periplaneta americana*

Beatriz Chafer-Dolz,* José M. Cecilia, Baldomero Imbernón, Estrella Núñez-Delicado, Victor Casaa-Giner and José P. Cerón-Carrasco*



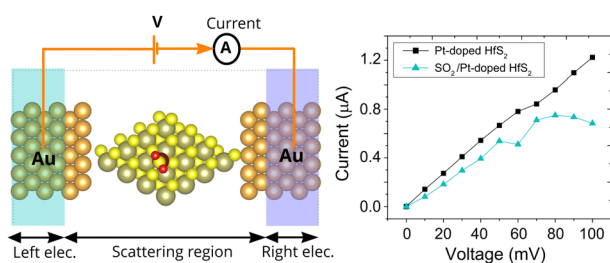
17244



Insight into the evolution upon ionization from tin-oxo cage photoresist and counterions by DFT calculation

Fang-Ling Yang, Zong-Biao Ye, Yu-Qi Chen, Ming-Hui Wang, Pan-Pan Zhou and Fu-Jun Gou*

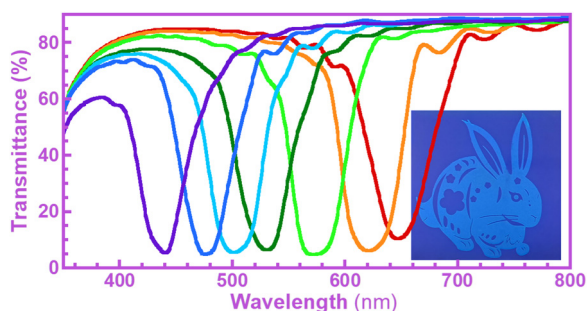
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The theoretical prediction of the structural characteristics and SO₂ adsorption-sensing properties of pristine HfS₂ and TM-doped HfS₂ monolayers (TM = Ni, Pd, or Pt)

Tuan V. Vu and Khang D. Pham*

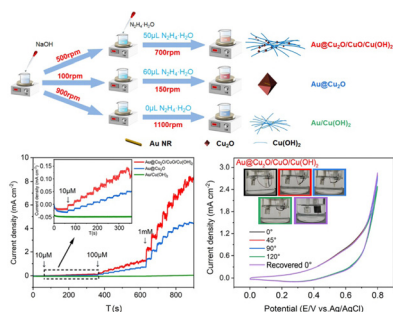
17261



A hyper-reflective cholesteric liquid crystal polymer network with double layers

Ming Zhang, Jinghua Zhao, Zhigang Yao,* Wei Liu, Yi Li and Yonggang Yang*

17267



0D/1D heterostructured Au@Cu₂O/CuO/Cu(OH)₂ with multivalent Cu(I)/Cu(II) for efficient and bendable glucose sensing

Xiaojing Yu,* Jing He, Shengjun Du, Zhanzhi Xu, Shaodong Sun, Yufei Tang and Kang Zhao*

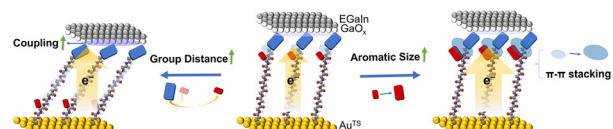


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 π – π interactions modulate charge transport in peptide-based frameworks

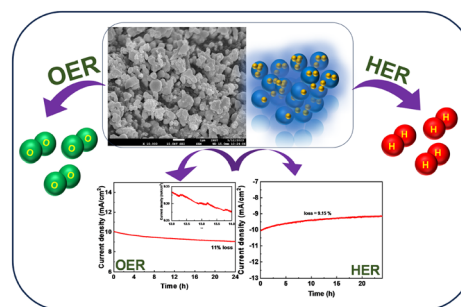
Liwen Su, Yongkang Zhang, Pan Qi, Han Liang, Huili Wang and Cunlan Guo*



17284

Bifunctional electrochemical OER and HER activity of Ta₂O₅ nanoparticles over Fe₂O₃ nanoparticles

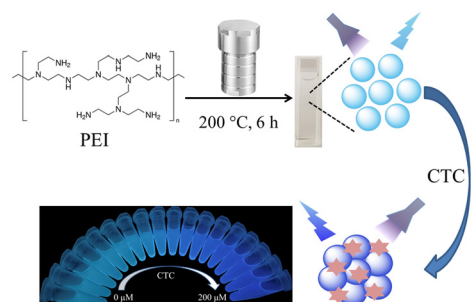
Imtiaz Ahmed, Vishal Burman, Rathindranath Biswas, Ayan Roy, Rohit Sharma and Krishna Kanta Halder*



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Carbonized polymer dots for the sensitive and selective analysis of chlortetracycline based on the aggregation induced emission

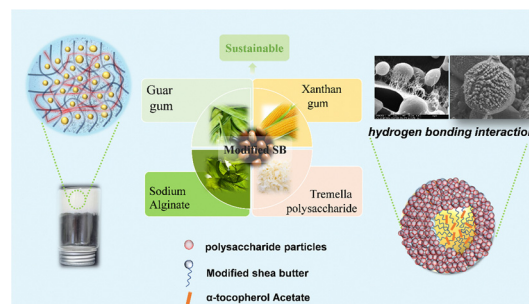
Tong Shao, Xiaoshuang Wang, Rentian Guan, Suyuan Zeng, Rui Li, Min Hong and Qiaoli Yue*



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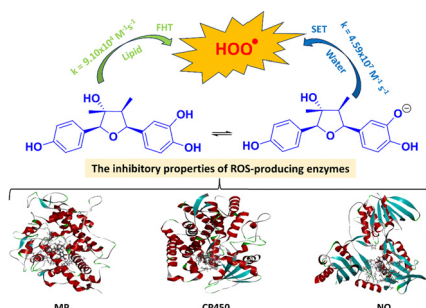
Encapsulation of α -tocopherol acetate of emulsion gels by synergistic stabilization with polysaccharides and modified shea butter

Yanan Han, Xiumei Tai,* Huimin Liu, Tao Geng and XiaoYi Yang



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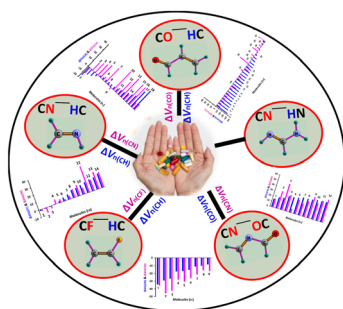
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The antioxidant activity of tetrahydrofuran lignans from *Anogeissus rivularis*: theoretical insights into the radical scavenging activity and enzyme inhibition

Quan V. Vo,* Nguyen Thi Hoa, Nguyen Minh Thong, Pham Cam Nam, Duong Tuan Quang, Nguyen Khoa Hien and Adam Mechler

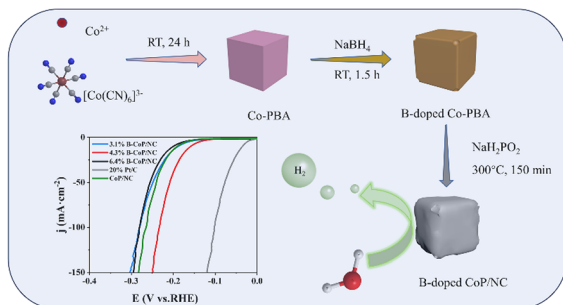
17323



The fundamental nature and importance of electrostatic potential in hydrogen bond formation: a case study of heterocycles frequently observed in drugs

Mambatta Haritha and Cherumuttathu H. Suresh*

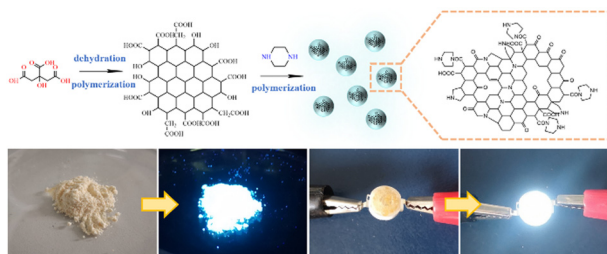
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Boron-doped CoP/nitrogen-doped carbon drives enhanced alkaline hydrogen evolution

Ruru Fu, Yun Zhao,* Caihong Feng and Qingze Jiao

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Single-phase excitation-wavelength-independent nitrogen doped graphene quantum dots for the fabrication of white light-emitting diodes (WLEDs)

Yue Xu, Lubin Liu, Miaojun Xu, Wei Feng, Lili Wang* and Xiaobiao Shan*

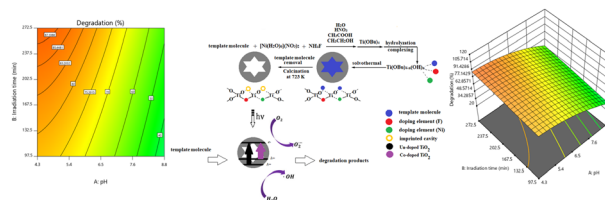


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Optimization by central composite design (CCD)-response surface methodology (RSM) of the highly selective molecularly imprinted Ni and F co-doped TiO₂ photocatalyst for photocatalytic degradation of bisoprolol

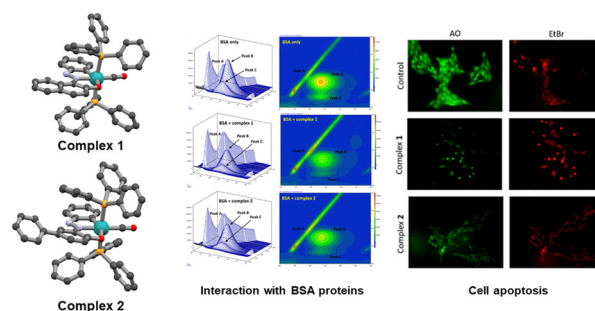
Nasim Asadbeigi, Mohammad Hadi Givianrad,*
Parviz Aberoomand Azar and Mohammad Saber-Tehrani



17359

Synthesis of Ru(II) cyclometallated complexes via C(aryl)–S bond activation: X-ray structure, DNA/BSA protein binding and antiproliferative activity

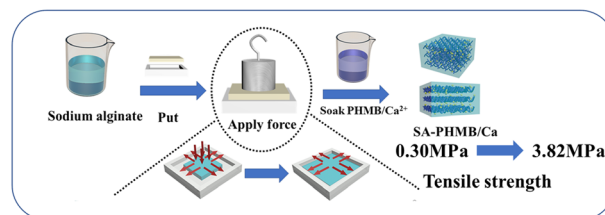
Akash Das, Subrata Mandal, Rimi Mukherjee,
Rahul Naskar, Nabendu Murmu and Tapan K. Mondal*



17373

Preparation and application of sodium alginate/PHMB/Ca²⁺ high-strength and high-antibacterial hydrogel

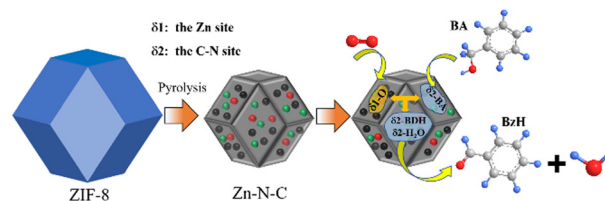
Liumi Deng, Xiang Zhou, Mengyun Wu, Lu Fu,
Zhiyu Huang, Meng Liao, Hua Wang, Shaohua Chen,*
Xu Tang* and Luoxin Wang



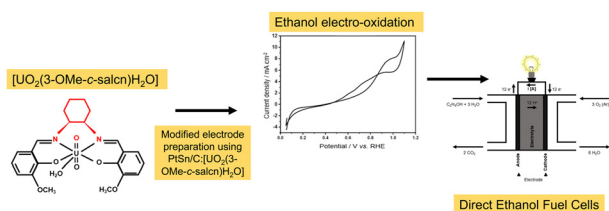
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Cu, Zn-coordinated ZIF-derived bimetal N-doped carbon frameworks for aerobic alcohol oxidation

Wenjie Du, Xiaohui Sun, Kezhi Tang, Limei Wang,
Zhuyin Sui, Yulin Li* and Xiufeng Xu*



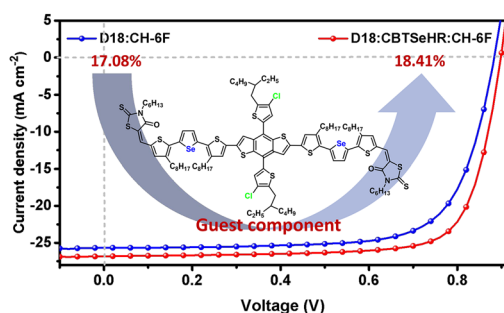
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Uranyl N_2O_2 -Schiff base complex as co-catalyst in ethanol electro-oxidation: synthesis, crystallographic, spectroscopic, electrochemical, and DFT characterization, and catalytic investigation

Elizomar Medeiros Barbosa, Kaique Souza Soares, Julianna Ferreira Cruz, Thiago Henrique Doring, Igor Vinicius de França, Lucas dos S. Mello, Glaucio R. Nagurniak, Renato L. T. Parreira, Meiry Edvirges Alvarenga, Felipe Terra Martins, Edward Ralph Dockal, Elson Almeida Souza, Paulo José Sousa Maia and José Wilmo da Cruz Jr*

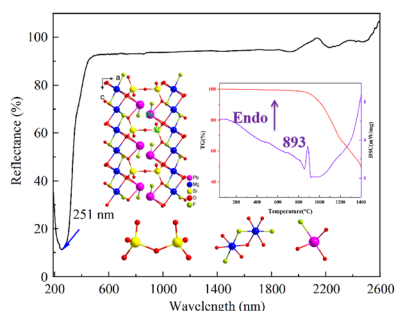
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Ternary organic solar cells with a selenophene-containing donor guest achieve a high efficiency of 18.41%

Zhengjin Li, Chunyan Liu, Jianhua Liu, Chengjiang Long, Yun Chen, Xun Huang, Luhong Wei and Nailiang Qiu*

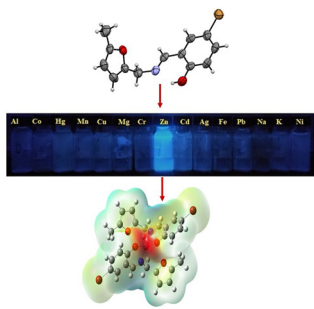
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$\text{Mg}_2\text{Pb}_2\text{Si}_2\text{O}_7\text{F}_2$: a new lead-containing alkali earth metal silicate fluoride with a short cutoff edge

Zhiyuan Zhang, Lihan Deng, Die Xu, Mei Hu, Zhencheng Wu, Xin Su* and Yineng Huang*

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Highly selective and sensitive fluorescent "TURN-ON" furan-based Schiff base for zinc(II) ion probing: chemical synthesis, DFT studies, and X-ray crystal structure

Divyashree N. R., Hosakere D. Revanasiddappa,* H. S. Yathirajan, Bhavya N. R., Mahendra M., Muzaffar Iqbal, Chandan Shivamallu, Raghavendra G. Amachawadi and Shiva Prasad Kollur*

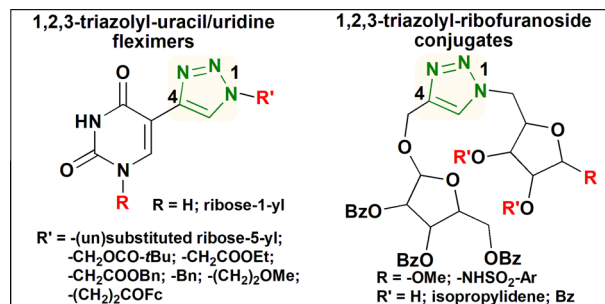


PAPERS

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1,2,3-Triazole-containing flex-nucleoside analogs and sulfonamido-ribofuranoside conjugates: design, synthesis, and antiproliferative potential

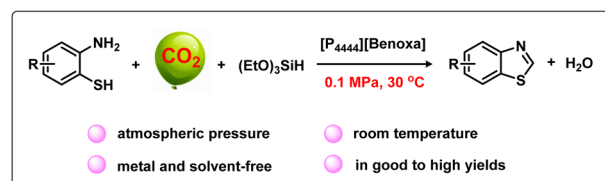
Dijana Pavlović Saftić,* Željka Ban,
Katarina Mišković Špoljarić,
Ljubica Glavaš-Obrovac* and Biserka Žinić*



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Benoxazolone-based ionic liquid catalyzed C–S bond construction for synthesis of benzothiazoles from 2-aminothiophenols and CO₂ under ambient conditions

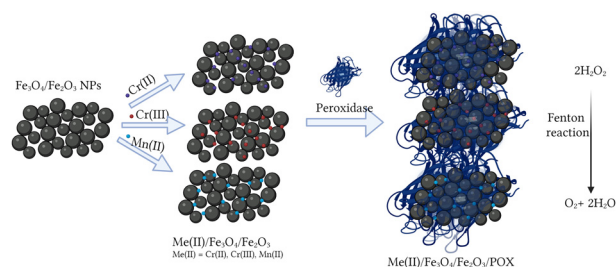
Xiang Gao,* Jiajia Zhao, Ying Gao,* Yuehua Deng, Yi Shi,
Jia He and Yanrui Li*



17456

Synthesis of Fe₃O₄/Fe₂O₃ nanoparticles modified with peroxidase with incorporated chromium and manganese ions

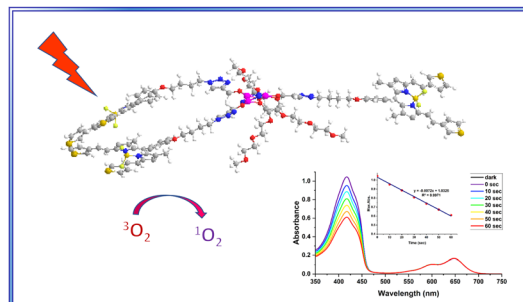
Olga Długosz,* Julia Matysik, Wiktoria Matyjasik,
Krzysztof Szostak and Marcin Banach



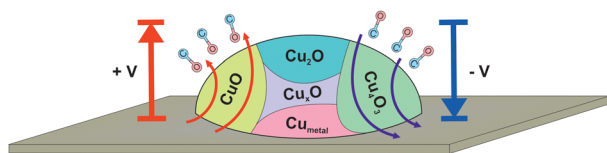
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Thiophene BODIPY-substituted cyclotriphosphazene-derived photosensitizers for photodynamic therapy applications

Elif Yıldız Gül, Murat Erdem, Hasan Hüseyin Kazan and
Esra Tanrıverdi Eçik*



17481

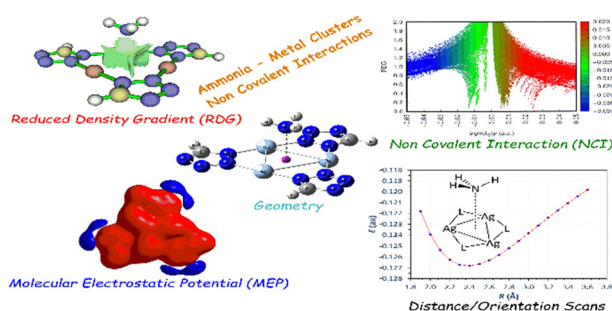


Negative potential promotes the reduction reaction of Cu_2O and CuO allotropes

Reduction of copper oxides by carbon monoxide at an applied potential

Nadezhda V. Dokhlikova, Andrey K. Gatin, Sergey Yu. Sarvadii, Sergey A. Ozerin, Vasily A. Kharitonov, Boris R. Shub, Maxim V. Grishin and Sergey V. Doronin*

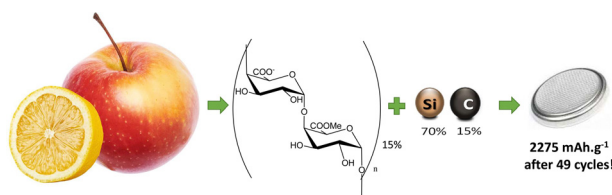
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Counterintuitive noncovalent interactions of ammonia with the all metal ring of cyclic trinuclear $\text{Ag}(\text{I})$ clusters: a DFT study

Athanassios C. Tsipis

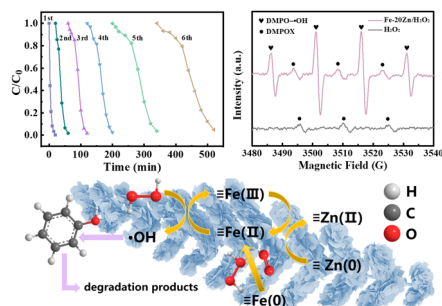
17499



Enzymatically demethylated pectins: from fruit waste to an outstanding polymer binder for silicon-based anodes of Li-ion batteries

Mariam Ndour, Jean-Pierre Bonnet, Sébastien Cavalaglio, Tristan Lombard, Josip Safran, Corinne Pau-Roblot and Véronique Bonnet*

17508



Accelerating $\text{Fe}(\text{III})/\text{Fe}(\text{II})$ redox cycling by Zn^0 in micro-nano dendritic Fe-Zn alloy for enhanced Fenton-like degradation of phenol

Yue Hao, Jiankang Wang, Qixing Xia, Xiao Zhang, Ying Song and Zhongping Yao*

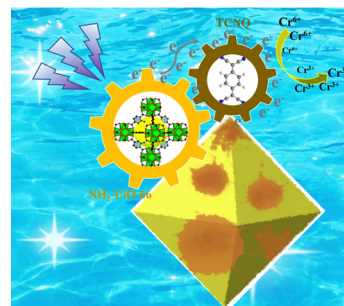


PAPERS

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Organic superconductor modified NH₂-UiO-66 for boosting photocatalytic Cr(VI) elimination under low-power ultraviolet light

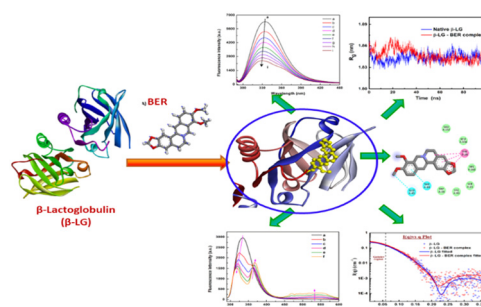
Xue-Zi Sun, Xiao-Hong Yi,* Yu-Hang Li, Chong-Chen Wang* and Peng Wang



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Interaction of plant alkaloid berberine with β -lactoglobulin: an account from spectroscopic, thermodynamic, and small-angle X-ray scattering studies aided by theoretical calculations

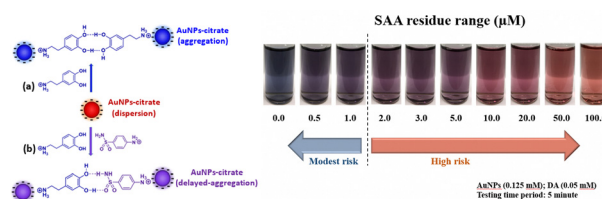
Saumen Saha, Snehasish Bhattacharjee and Joydeep Chowdhury*



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Modifier-free gold nanoparticle colorimetric sensing for detecting sulfanilamide in the presence of dopamine

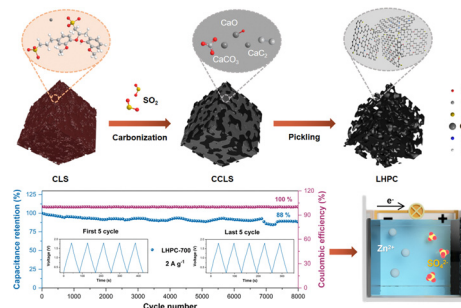
Anh V. T. Le, Thanh-Truc Huynh, Dong-Phuong Truong, Dinh-Trung Nguyen, Van-Phuc Dinh* and Shu-Hua Cheng*



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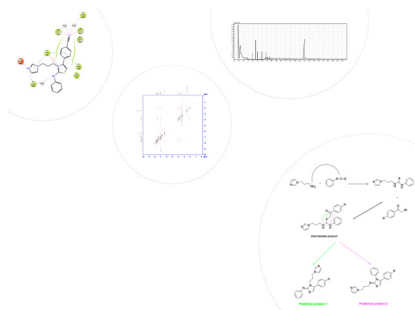
3D hierarchical tri-doped porous carbon derived from calcium lignosulfonate for high-performance zinc ion hybrid capacitors

Jianhui Ma, Shunsheng Yang, Tao Huang, Xihong Zu,* Yingjuan Sun and Wenli Zhang*



PAPERS

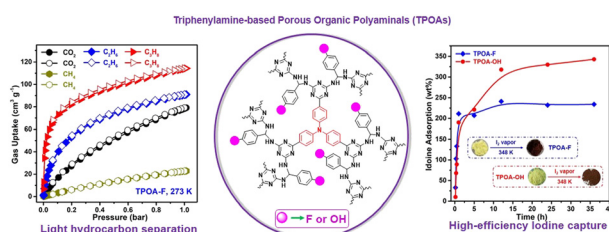
17558



Synthesis of novel thiazol-2(3*H*)-imine derivatives as ergosterol biosynthesis inhibitors, and elucidation of their structures using a 2D NMR technique

Derya Osmaniye,* Serkan Levent, Begum Nurpelin Sağlık, Şennur Görgülü, Yusuf Özkay and Zafer Asım Kaplancıklı

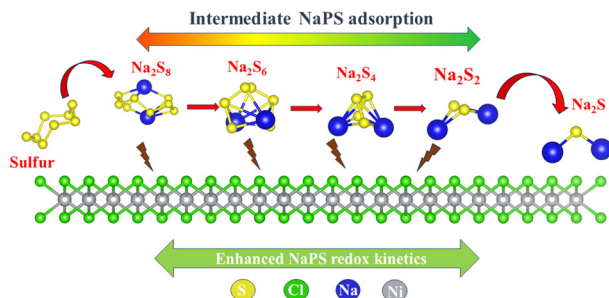
17567



Nitrogen-rich triphenylamine-based porous organic polyaminals for the adsorption/separation of C1–C3 light hydrocarbons and efficient iodine capture

Qiuyue Liu, Lingmei Jiang,* Jianhua Liu, Luhong Wei, Jian Zhang and Kuanyu Yuan*

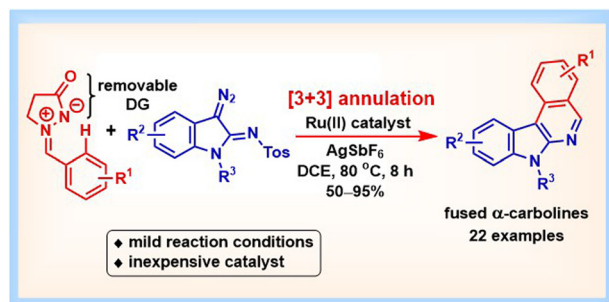
17578



Two-dimensional NiCl₂ monolayers as a promising multifunctional anchoring material in sodium–sulfur batteries

Lei Chen, Shuxin Gui and Jingxiang Zhao*

17586



Ru(II)-catalyzed synthesis of indolo[2,3-*c*]-isoquinolines via [3+3] annulation of *N,N'*-cyclic azomethine ylides and 3-diazoindolin-2-imines

Durgesh Gurukkala Valapil, Priyanka Mishra, Kalyani Jungare and Nagula Shankaraiah*

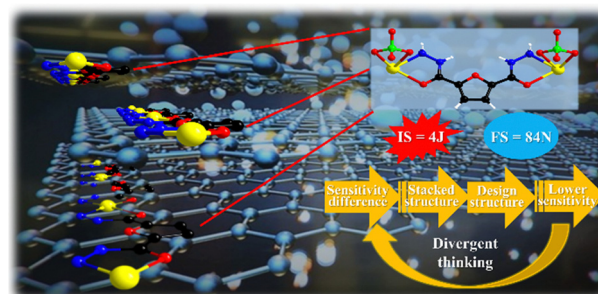


PAPERS

17592

Constructing a graphene-like structure to lower friction sensitivity: Ag(I) complexes based on furan-2,5-dicarbohydrazide

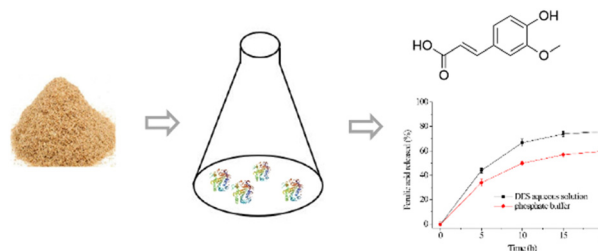
Chao Zhang, Ting-wei Wang, Zu-jia Lu, Zhen-xin Yi, Bao-long Kuang, Zhi-ming Xie, Yan Li and Jian-guo Zhang*



17599

High efficiency production of ferulic acid using feruloyl esterase and xylanase in deep eutectic solvents

Wenbin Jin, Kaipeng Wang, Xueyang Xu, Yiling Xu, Fengwei Li, Qingzhi Ji, Xiaodong Chen and Xiaohong Yu*



CORRECTIONS

17607

Correction: Insecticide discovery by drug repurposing: new synergistic inhibitors against *Periplaneta americana*

Beatriz Chafer-Dolz*, José M. Cecilia, Baldomero Imbernón, Estrella Núñez-Delicado, Victor Casaña-Giner and José P. Cerón-Carrasco*

17608

Correction: The theoretical prediction of the structural characteristics and SO₂ adsorption-sensing properties of pristine HfS₂ and TM-doped HfS₂ monolayers (TM = Ni, Pd, or Pt)

Tuan V. Vu and Khang D. Pham*

