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See Hegian Zhang, Xiaojie Li et al., pp. 12093-12100. Image reproduced by permission of Zhiwei Qin from New J. Chem., 2023, 47, 12093.



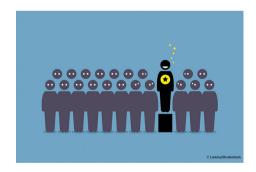
Inside cover

See Bin Li et al., pp. 12101-12108. Image reproduced by permission of Bin Li, Wenrui Hao, Jizhen Liu, Mengjing Zhou, Xiaojia Xu and Aolin Wu from New J. Chem., 2023, 47, 12101.

EDITORIAL

12074

Outstanding Reviewers for New Journal of Chemistry in 2022



COMMUNICATIONS

Highly selective reduction of CO₂ to HCOOH by a ZnO/SnO₂ electrocatalyst with heterogeneous interfaces

Jing-Nan He, Xin Ding,* Qi Liu and Yan Gao*



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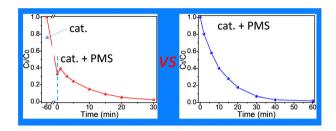


COMMUNICATIONS

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Insights into the degradation of organic pollutants via peroxymonosulfate activation over highly adsorptive carbon

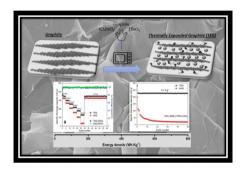
Shuchang Wu,* Min Zhao, Zhijun Xia, Jiangyong Diao* and Zailai Xie



12085

Thermally expanded graphite: a promising anode electrode in the current and next-generation LIBs

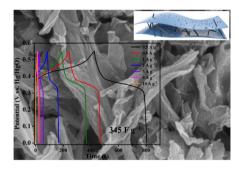
Sarmin Hamidi, Kasra Askari and Pejman Salimi*



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Fabrication of a 3D bacterial cellulose intercalated MoS₂@rGO nanocomposite for high performance supercapacitors

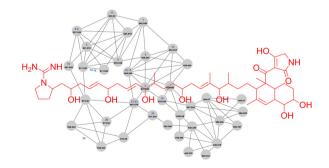
Jingyang Tian,* Ruihua Hao, Chundi Yang, Xiangbin Ge, Xueyang Tang, Zhirui Liu, Jingwei Wang, Minghui Cao, Yuanping Jiang and Chong Lin*



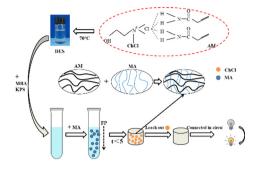
PAPERS

Dissecting the biosynthesis of the polyketide alkaloid lydicamycin using a complex metabolic network

Heqian Zhang, Xiaojie Li, Shiyu Pan, Jiaquan Huang* and Zhiwei Qin*



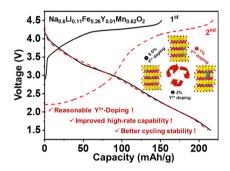
12101



Preparation of P(AM-co-MA) composite hydrogels by frontal polymerization and its performance study

Bin Li,* Wenrui Hao, Jizhen Liu, Mengjing Zhou, Xiaojia Xu and Aolin Wu

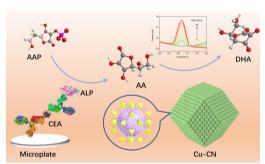
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A Y-doped P2- $Na_{0.6}Li_{0.11}Fe_{0.27}Mn_{0.62}O_2$ cathode with improved high-rate capability and cycling stability for Na-ion batteries

Ming-Hui Cao,* Ren-Yan Li, Fen-Fen Huang, Xin-Yin Cai, Miao Cui, Shi-Ya Lin, Jing-Yang Tian, Yuan-Ping Jiang, Zulipiya Shadike* and Zheng-wen Fu*

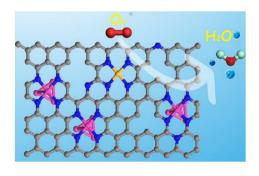
12117



Electrochemical immunoassay based on an atomically Cu-dispersed nitrogen-doped carbon electrode for screening carcinoembryonic antigen

Chaoqun Huang, Yinan Li, Fan Cai, Hongbin Zhong, Fengling Zhang, Weimin Zhong, Lin Yao* and Jiyi Huang*

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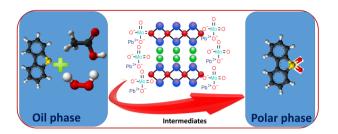
Secondary doping of Mn/Co bimetallic ZIF-derived catalysts for the oxygen reduction reaction

Lingli Guo, Yuekun Hu, Xiaowei Zhao, Xingkai Peng, Xinghua Zhang, Xiaofei Yu, Xiaojing Yang, Zunming Lu and Lanlan Li*

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Superior stability and activity of a PbMoO₄/BiOBr nanocomposite for enhanced catalytic oxidative desulfurization of actual fuel

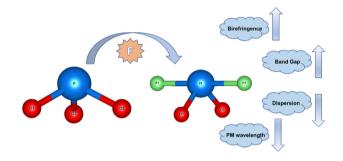
Asmaa. A. Abdelrahman, Heba M. Salem,* Doaa. I. Osman and Abdelrahman M. Rabie*



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Enhancement of birefringence and refractive index dispersion optimization from iodates to fluorooxoiodates

Shibin Wang, Jie Zhang, Jianbang Chen, Peng Han, Na Lei and Xuchu Huang*



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Effect of mixtures of ionic liquids and water on the structure and stability of the insulin dimer: a combined DFT and MD simulation study

N. Giri Lakshman, S. M. Esther Rubavathy, S. Priyankha, K. Palanisamy and M. Prakash*



12164

Mechanistic insight for tunable regioselective cyclization of aryl propiolates with radicals: ipso-versus ortho-cyclization

Meryem Fıstıkçı

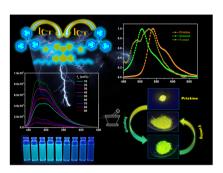
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Theoretical-experimental prediction of the selectivity between polyamidoamine dendrimers and bioactive peptides derived from amaranth seeds

Alejandro Fajardo De La Rosa, Oscar Hernández-Meléndez, J. Manuel Saniger-Blesa, Ma. Inés Nicolás-Vázguez* and Eduardo Bárzana*

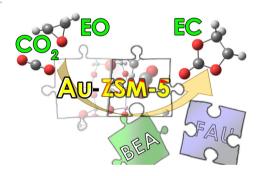
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Rational design of spiro[fluorene-9,9'-xanthene] based molecule for aggregation induced emission (AIE) and mechanochromism (MC): synthesis and theoretical investigation

Babar Suraj Shivaji, Lal Chand, Jaipal Devesing Girase and Surya Prakash Singh*

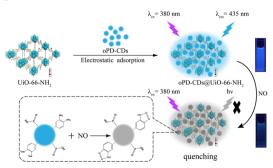
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Effects of Lewis acid strength of monovalent coinage metals and zeolite frameworks on catalytic CO₂ cycloaddition with ethylene oxide: A DFT study

Winyoo Sangthong and Jakkapan Sirijaraensre*

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An oPD-CD doped zirconium-based metal-organic frame composite fluorescence probe for efficient and selective detection of nitric oxide

Botao Zhang, Liyun Ding,* Yumei Zhang, Shiyuan Wang, Xingdong Jiang, Fei Ma and Jue Zhao

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Producing green hydrogen in an efficient way using a nexus of a waste-biomass derived catalyst and a cost-effective & scalable electrode platform

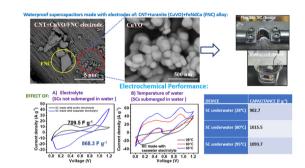
Kirti, Amravati S. Singh, Kinjal B. Patel, Ashish A. Patil, Ankush V. Biradar* and Divesh N. Srivastava*



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CNT/turanite/FeNdCo-alloy electrodes to enhance the capacitance of waterproof/eco-friendly supercapacitors

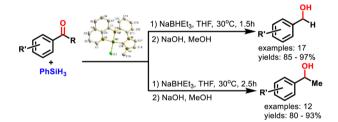
Marco Balderas-Soto, Edgar Giovanny Villabona-Leal, Anvar A. Zakhidov, Arturo I. Mtz-Enriquez, Pedro Salas, Andrea Molina, Horacio Flores-Zuñiga and Jorge Oliva*



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Synthesis of [CNN] pincer nickel(II) NHC chlorides and their catalytic effects on the hydrosilylation of aldehydes and ketones under mild conditions

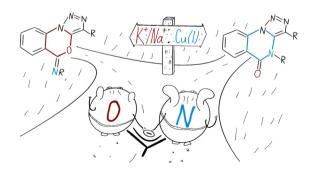
Shaobo Cao, Shangqing Xie, Qingshuang Li, Xiaoyan Li, Hongjian Sun,* Olaf Fuhr and Dieter Fenske



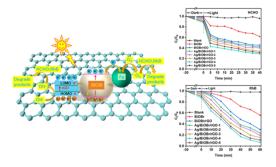
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Divergent cyclization of 2-(5-iodo-1,2,3-triazolyl)benzamides toward triazole-fused lactams and cyclic imidates

Yury N. Kotovshchikov,* Stepan S. Tatevosyan, Gennadij V. Latyshev,* Zoya R. Kugusheva, Nikolay V. Lukashev and Irina P. Beletskaya



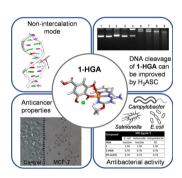
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Ternary Aq/BiOBr/rGO nanoflower composite as a high-efficiency photocatalyst for formaldehyde and rhodamine B degradation

Gang Yan,* Lijun Zhou, Baolin Yang, Hongliang Hu, Xiangwei Guo and Hongkai Zhao

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The effect of gallic acid on the copper(II) complex of N-(methylpyridin-2-yl)-amidino-O-methylurea: crystal structure, DNA interactions, in vitro cytotoxicity and antibacterial activity

Prangtip Nonkuntod, Jaursup Boonmak, Thanaset Senawong, Chaiyaporn Soikum, Prapansak Chaveerach, Athis Watwiangkham, Suwit Suthirakun and Unchulee Chaveerach*

12274



Rh(III)-catalyzed cascade annulation reaction of N,N-dimethyl enaminones with iodonium ylides to give substituted isocoumarins

Mingshuai Zhang, Longkun Chen, Donghan Liu, Zhuoyuan Liu, Jiuzhong Huang,* Xiang Li* and Fuchao Yu*

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Kinetic Effect & Equilibrium Effect Intracrystalline diffusion Accessibility of active sites Steric Effect & Equilibrium Effect Ca²⁺ ion-exchange 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 Pore Diameter (A)

Confined channels

Reinforced interaction

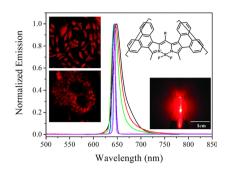
Unraveling the separation mechanisms of the LTA zeolite depending on the regulated particle size and pore structure for efficient ethylene/ethane separation

Chaowen Liu, Mudi Xin, Xuejing Zhang, Chunlu Wang, Limei Qiu and Guangtong Xu*

12287

A series of π -expanded coplanar BODIPY dyes with deep-red emission: Synthesis, optical properties, and application in amplified spontaneous emission

Yang Wang,* Lei Xie, Qinning Sun and Liang Liu



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Trimethylindolenines as C-N synthons for the assembly of spiro[oxindole-thioxoimidazolidine-indoline] hybrids in formal [3+2] cycloadditions

Wen-Hui Zhang, Zi-Yue Chen, Ren-Ming Liu, Xiong-Wei Liu, Bo-Wen Pan,* Jian Zhou, Ying Zhou, You-Ping Tian and Xiong-Li Liu*

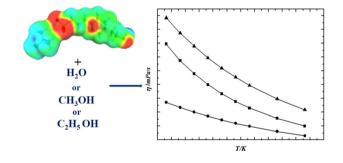


- The first example of trimethylindolenines serving as C-N synthons in [3+2] cycloadditions
- The creation of three crowded adjacent quaternary stereocentres on pent/hexacyclic spirocyclic structures

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Mixtures of the [TMA][EPPS] ionic liquid with methanol, ethanol, or water: thermophysical properties and molecular interactions

Asalil Mustain, Bhupender S. Gupta, Mohamed Taha* and Ming-Jer Lee*



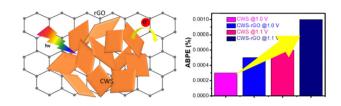
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A reflux system for SBA-15 synthesis for the selective hydrogenation of cinnamyl aldehyde

Guofeng Wang, Wenwen Gao, Dong Yun,* Chuanzhi Xu,* Zhen Li* and Chungu Xia



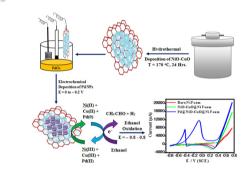
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Reduced graphene oxide-copper thiotungstate composite for enhanced photoelectrochemical performance

Preeti Dagar and Ashok K. Ganguli*

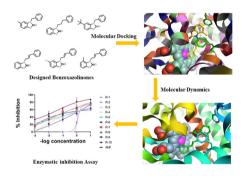
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Highly dispersed Pd nanoparticles on NiO-CuO nanocomposite for efficient ethanol sensing

Jagdish C. Bhangoji, Ulka B. Suryavanshi,* Gurudas P. Mane, Gurmeet C. Wadhawa, Nagesh D. Pawar and Suresh S. Shendage*

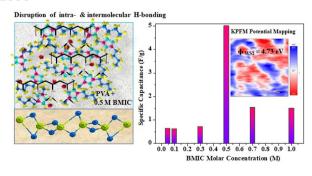
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Identification of potential benzoxazolinones as CYP1B1 inhibitors via molecular docking, dynamics, waterswap, and in vitro analysis

Baddipadige Raju, Himanshu Verma, Gera Narendra, Gurleen Kaur, Subheet Kumar Jain and Om Silakari*

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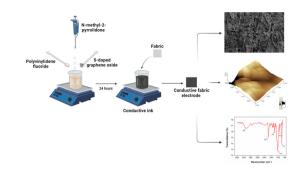
Ionic liquid gel electrolyte with a WS2 electrode for highly stable high-voltage solid-state supercapacitors

Priyanka Rani, Rajdeep Banerjee, Prama Adhya, Samit K Ray, Anupam Midya* and Dipak K Goswami*

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Heteroatom-doped graphene oxide-based conductive ink: synthesis, characterization and investigation of the conductivity properties for flexible sensor technology

Selen Uruc, Ebrar Dokur, Rabianur Kurteli, Ozge Gorduk and Yucel Sahin*



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Fabrication of a bifunctionalyzed Calotropis gigantea inspired Aq-Cu-Co trimetal oxide for the remediation of methylene blue, and its larvicidal and antibacterial applications

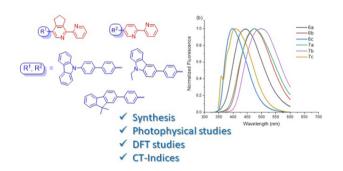
A. Nivetha, C. Sakthivel, J. Hemalatha, C. Senthamil and I. Prabha*



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Carbazole/fluorene-substituted 5-phenyl-2,2'-bipyridine D- π -A fluorophores: photophysical data, hyperpolarizability and **CT-indices**

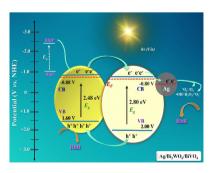
Ekaterina S. Starnovskaya, Maria I. Valieva, Rammohan Aluru, Dmitry S. Kopchuk, Albert F. Khasanov, Olga S. Taniya, Alexander S. Novikov, Alexey A. Kalinichev, Sougata Santra,* Grigory V. Zyryanov and Brindban C. Ranu



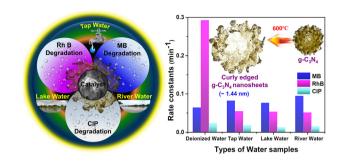
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Visible-LEDs-induced photocatalytic activity of Bi₂WO₆/BiVO₄ heterojunctions prepared by a novel and green methodology

Sonia Judith Segovia-Sandoval, Esmeralda Mendoza-Mendoza.* Araceli Jacobo-Azuara, Roberto Leyva-Ramos, Hiram Joazet Ojeda-Galván, Joelis Rodríguez-Hernández and Ignacio René Galindo-Esquivel



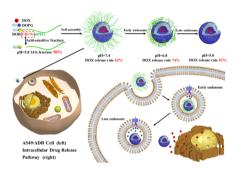
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Unlocking the potential of thermally exfoliated ultrathin g-C₃N₄ nanosheets: abundant active sites for enhanced solar photocatalysis

Suma Das, Swapnamoy Pramanik, Ranjith G. Nair* and Avijit Chowdhury*

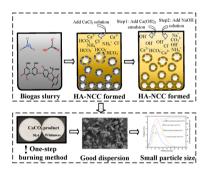
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Acid-sensitive PEG-removable nanoscale liposomes for delivery of doxorubicin in A549/ADR therapy

Hailiang Chen, Chenyu Liu,* Simiao Yu, Hengjun Zhou, Farishta Shafiq and Weihong Qiao*

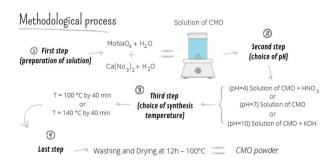
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Macroscale preparation of nanosized calcium carbonate by exploiting biogas slurry synchronous metathesis encapsulation method

Fanghui Pan, Han Xiao, Fei Huang, Jingjing Lei, Hongguang Zhu* and Jie Ma*

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Optical and electrical features of calcium molybdate scheelite solar cells

Ananda Ramires das Neves Stigger,* Vinicius Fonseca Hernandes, Mateus Meneghetti Ferrer and Mario Lucio Moreira

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PAMAM-quanylthiourea conjugates mask furin's substrate binding site: mechanistic insights from molecular docking and molecular dynamics studies assist the design of potential furin inhibitors

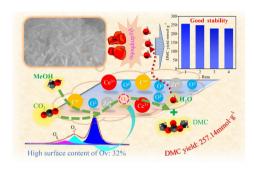
Chithra R. Nair and K. G. Sreejalekshmi*



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Hierarchically porous $Ce_xZr_{1-x}O_2$ materials prepared by solvent volatilization for highly efficient synthesis of DMC from CO₂ and methanol

Guanling Yang, Haobo Wang, Aizhong Jia,* Jingde Li and Yanji Wang



12487

Silver-mediated radical cascade cyclization of N-allylamides with sodium sulfinates to access sulfonated oxazolines

Zhichao Chen,* Mu He, Hongmei Zheng, Wenting Weng,* Lidan Sun* and Xiaolan Xie

CORRECTION

12492

Correction: Triflic acid-catalyzed metal-free synthesis of (E)-2-cyanoacrylamides and 3-substituted azetidine-2,4-diones

Bapurao D. Rupanawar, Santosh S. Chavan, Anil M. Shelke and Gurunath M. Suryavanshi*