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IN THIS ISSUE

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Cover

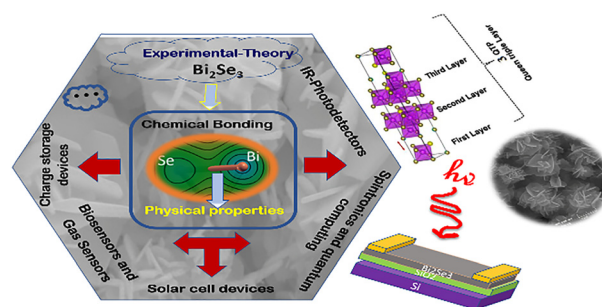
See Ashlee J. Howarth *et al.*, pp. 2621–2628.
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REVIEWS

2523

Bismuth selenide topological insulator materials for green energy devices: prospects and applications

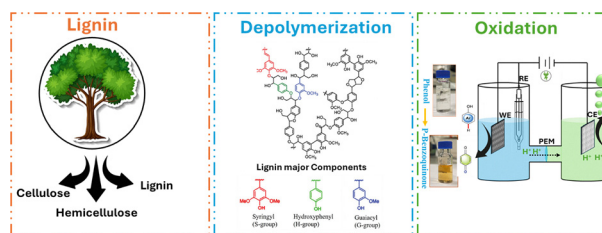
Razieh Khaki, Mahmood Moradi,*
Gholam Hossein Bordbar, Hana Kazemi,
Saeid Davatolhagh and Meysam Pazoki*



2563

Electrochemical coupling of lignin-derived phenolic valorization and green hydrogen production: a minireview

Asad Ali,* Leif J. Jönsson, Xiaoyan Ji,* Lovisa Byström and Reverant Crispin*



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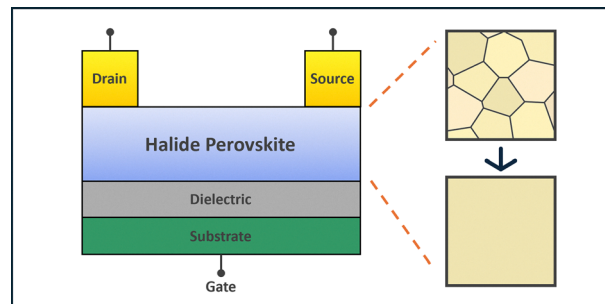


REVIEWS

2579

Toward AI-ready hardware: review of single-crystal halide perovskite FET fabrication and performance

Hyojung Kim

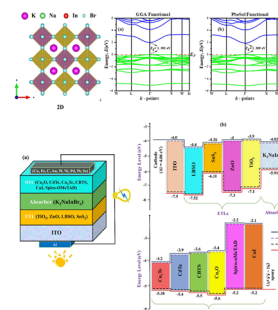


COMMUNICATION

595

An eco-friendly $K_2NaInBr_6$ double halide perovskite as a next-generation absorber for perovskite solar cells: a DFT and SCAPS-1D study

Nazmul Shahadath, Ashrafal Mujahid, Raihan Kabir, Md. Tarekuzzaman, Mohammad Yasin Hayat Khan, Md. Abu Bakkar Siddique, Sohail Ahmad, Md. Rasheduzzaman and Md. Zahid Hasan*

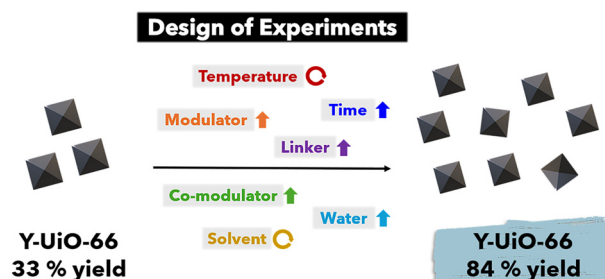


PAPERS

2621

Studying the significance of the parameters involved in the synthesis of Y-UiO-66 to improve product yield

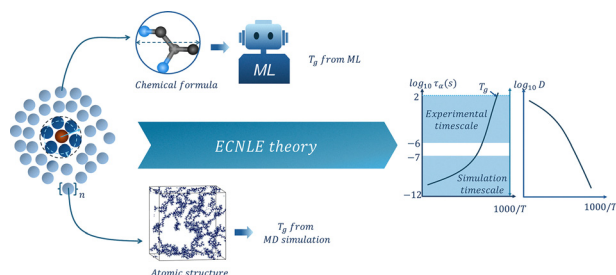
Micaela Richezzi, P. Rafael Donnarumma and Ashlee J. Howarth*



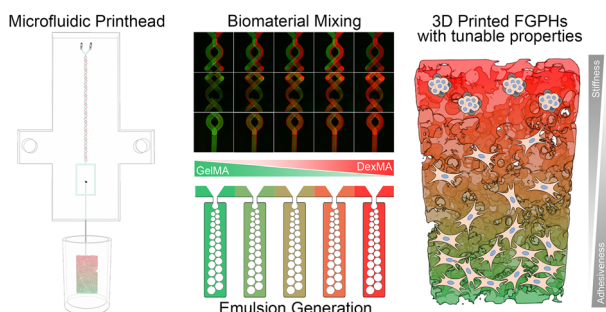
2629

Multiscale prediction of polymer relaxation dynamics via computational and data-driven methods

Nguyen T. T. Duyen, Ngo T. Que and Anh D. Phan*



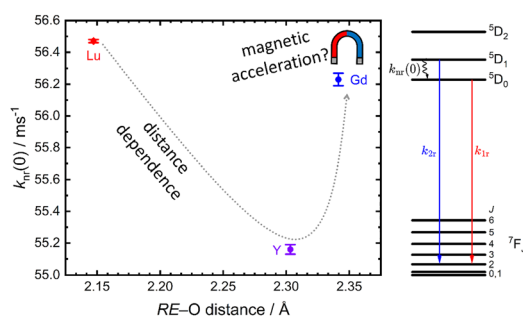
2641



Microfluidic-mixer assisted 3D printing of functionally graded multimaterial hydrogels for engineering complex tissue interfaces

Maria Celeste Tirelli, Francesco Nalin, Nehar Celikkin, Żaneta Górecka, Pasquale Posabella, Wojciech Świążkowski and Marco Costantini*

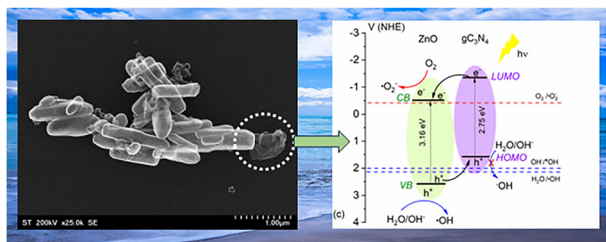
2652



Analysis of the magnetic dipolar nonradiative decay of the 5D_1 level of Eu^{3+} in single-crystalline huntite-type $\text{REAl}_3(\text{BO}_3)_4:\text{Eu}^{3+}$ ($\text{RE} = \text{Y}, \text{Gd}, \text{Lu}$)

Tom Förster, Leonardo Ceccon, Benedikt Bendel, Marco Bettinelli, Fabio Piccinelli* and Markus Suta*

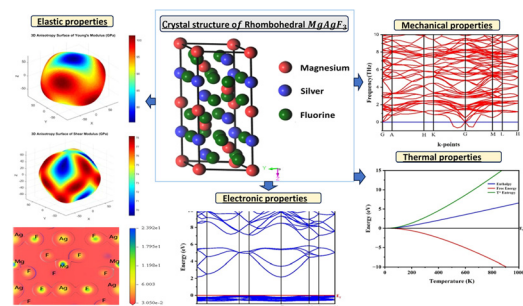
2663



gC_3N_4 decorated with $\text{ZnO}:\text{Mn}$ rods for enhanced photocatalytic performance

Adriana Popa, Maria Stefan, Sergiu Macavei, Lucian Barbu-Tudoran, Ioana Perhaita, Maria Suciuc, Cristian Leostean and Dana Toloman*

2675



First-principles calculation of rhombohedral perovskite MgAgF_3 : a DFT study of optical, electronic, elastic, thermodynamic and mechanical properties

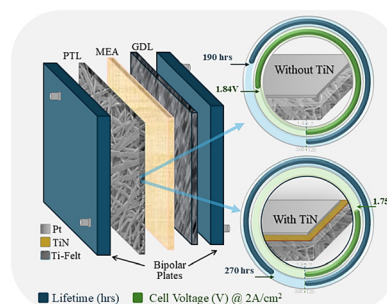
Aesha Siddiqua, Jannat Ara Jui, Shajib Ahmed, M. D. I. Bhuyan* and Obaidullah



2690

Enhancing durability of Pt-coated titanium porous transport layers for PEM water electrolysis using TiN interlayers

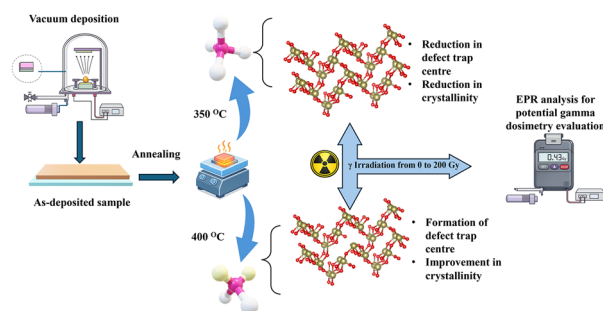
Muhammad Azhar Iqbal, Sukhvant Singh, Aditya Singh and Samaneh Shahgaldi*



2701

Gamma irradiation-induced structural and defect modulation in β -TeO₂ thin films at different annealing temperatures

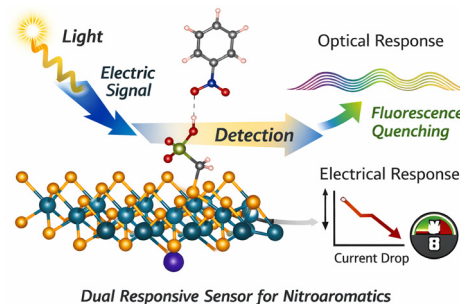
K. Chandra, M. G. Mahesha, N. Karunakara and Pramoda Kumara Shetty*



2716

Covalent functionalization of MoSe₂ nanosheets with hydrogen bond-donating functionalities for the sensing of nitroaromatics

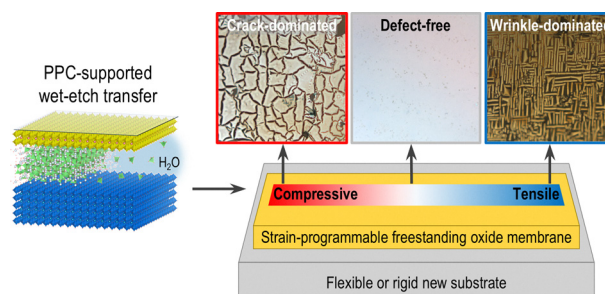
Rabaa Hajlaoui, Sabrine Baachaoui, Sami Ben Aoun, Said Ridene* and Nouredine Raouafi



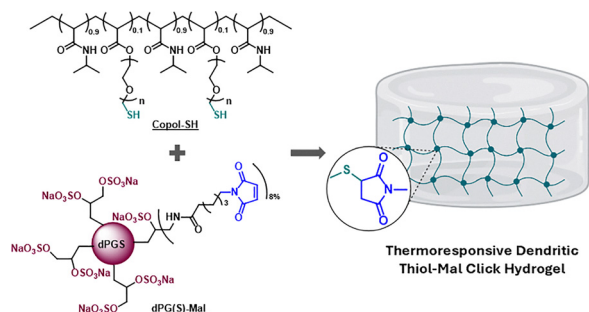
2727

Scalable, epitaxy-preserving transfer of freestanding perovskite and layered oxide membranes with tunable strain

Habib Rostaghi Chalaki, Ebenezer Seesi, Avari Suber, Sang-Hoon Nam, Yo-Han Suh and Dongkyu Lee*



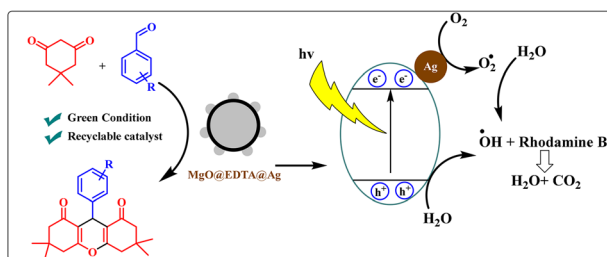
2738



Sulfation of thiol–maleimide crosslinked hydrogels modulates material properties and cell biocompatibility

Lasse Riediger, Lei Wang, Peer Nölte, Cosmin Butnarusu, Peng Tang, Yannic Kerkhoff, Elisa Quaas, Justin Arenhoevel, Daniel Lauster, Yi-An Yang,* Nan Ma* and Rainer Haag

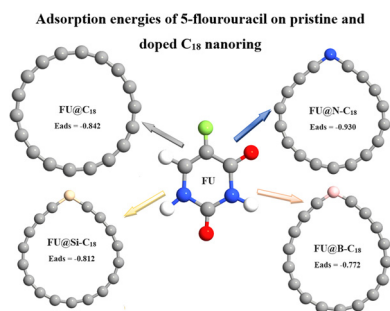
2752



Design of a MgO@EDTA@Ag nanocatalyst for sustainable synthesis of xanthenes and rhodamine B degradation

Anamika Brahma, Ankita Borah, Masoume Malmir and Snigdha Singh*

2766



Tunable drug delivery via functionalized C₁₈ nanorings: a DFT-MD investigation of 5-fluorouracil adsorption and release

Alaa M. Khudhair and Ali Ben Ahmed*

2778

a				b	
PEGDA700	PEGDA575	DEGDA	LCST (°C)		
50	50	/	80 ± 1.3		
25	75	/	65 ± 0.9		
100	/	/	60 ± 1.1		
/	75	25	48 ± 0.9		
/	50	50	34 ± 0.8		

Thermo-responsive single-chain cyclized/knotted polymers for cell encapsulation

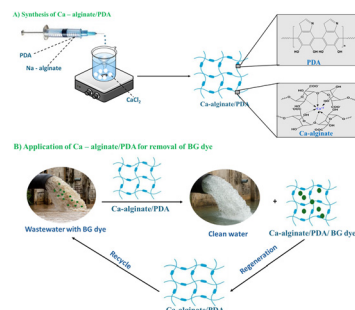
Zhi Dou,* Liangliang He,* Wenxing Zhao, Xiaoping Wang, Hongyan Wang, Jie Lu, Chao Wang and Liqiang Yang*



2785

Sustainable removal of brilliant green dye from aqueous media using a calcium alginate–polydopamine bio-composite: process optimization and adsorption mechanism

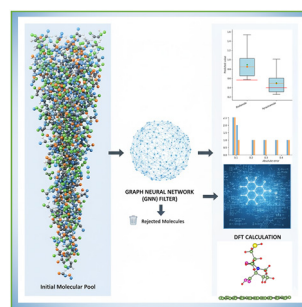
Marwa Magdy, Mohamed M. Aboelnga and Elsayed Elbayoumy*



2803

Unveiling the adsorption and electronic interactions of drugs on 2D graphsene: insights from DFT and machine learning approaches

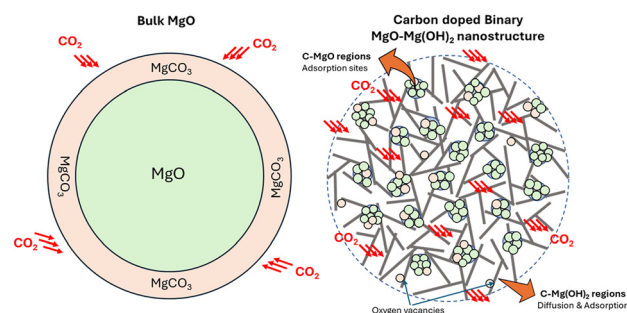
Chaithanya Purushottam Bhat, Pranav Suryawanshi, Aditya Guneja and Debashis Bandyopadhyay*



2813

Kinetic interface design in carbon-doped Mg(OH)₂ enables concurrent CO₂ blocking and capture

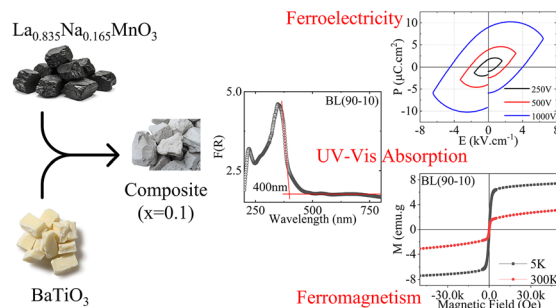
Hashan N. Thenuwara, W. P. Cathie Lee, Shunlian Wu, Sim Jia Yu, Siew Yee Wong, Xu Li* and Ping Wu*



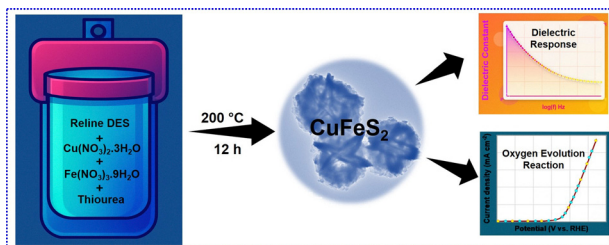
2824

Tunable multifunctionality in BaTiO₃–La_{0.835}Na_{0.165}MnO₃ composites: from UV-to-visible light absorption and nonmagnetism to room-temperature ferromagnetism

Lozil Denzil Mendonca, El Kebir Hlil and Mamatha D. Daivajna*



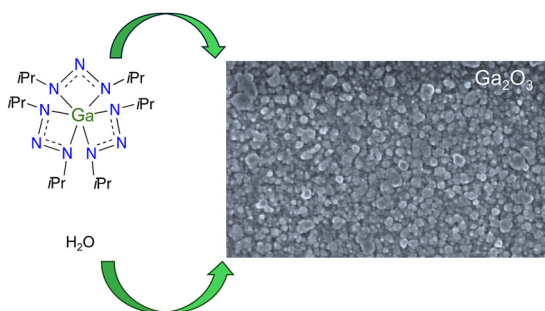
2859



Unveiling a reline deep eutectic solvent (DES) for controlled synthesis of phase-pure CuFeS_2 towards dielectric and electrocatalytic applications

Bhagirath Mahto, Monika Gupta, Haider Ali and Sahid Hussain*

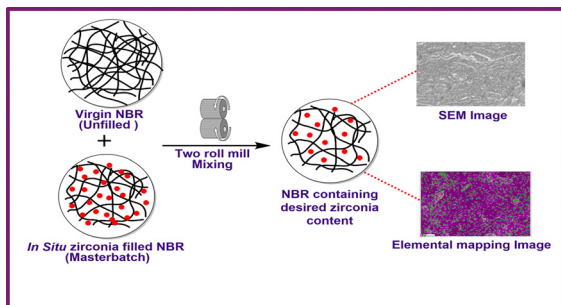
2874



Atomic layer deposition of gallium oxide using gallium triazenide and water

Prosper Simbarashe Mushore, Pamburayi Mpofu, Kenichiro Mizohata, Kostas Sarakinos, Nathan J. O'Brien and Henrik Pedersen*

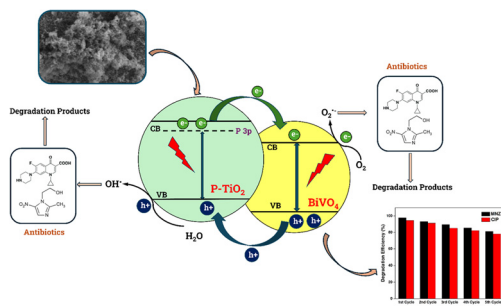
2882



Masterbatch strategy for enhanced filler dispersion and reinforcement of zirconia-filled NBR composites

Shubham C. Ambilkar, Surabhi S. Raut, Bharat P. Kavgate and Chayan Das*

2892



Enhanced photodegradation of antibiotics using a novel $\text{BiVO}_4/\text{P-doped TiO}_2$ heterostructure: performance evaluation, property and kinetic modelling

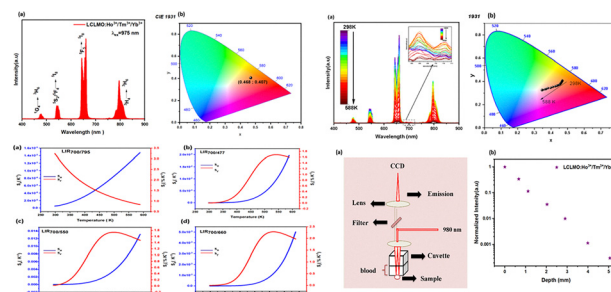
Tanzim Ur Rahman, Musfekur Rahman Dihan, Abdul Hai and Md. Shahinoor Islam*



2911

A robust, multifunctional optical sensing platform operating under practical conditions

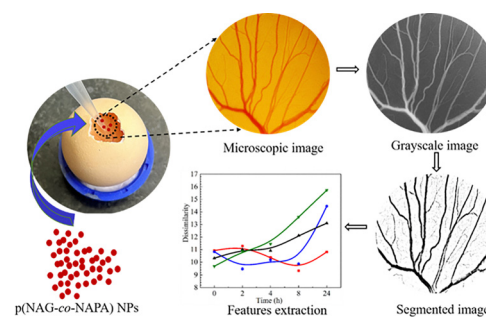
Ikhlas Kachou, Mouna Fhoula, Kamel Saidi, Christian Hernández-Álvarez, Mohamed Dammak* and Inocencio R. Martín



2921

Angiogenic properties of poly(NAG-co-NAPA) nanoparticles: assessment via gray-level co-occurrence matrix-based image processing

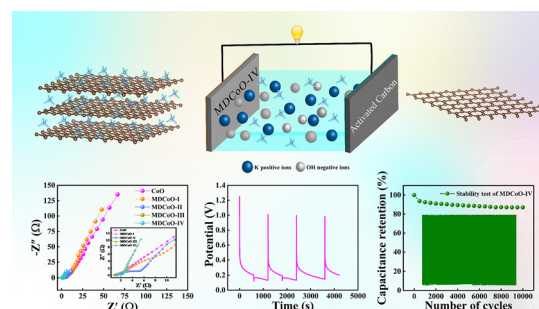
Sukanya Patra, Aniket Dayanand Lokhande, Gurmeet Singh, Divya Pareek, Saumya Jaiswal, Prem Shankar Gupta, Abhijit Majumder, Jac Fredo Agastinose Ronickom and Pradip Paik*



2937

Optimization of diffusion dynamics in Mn-doped Co₃O₄/rGO hybrid electrodes for efficient energy storage in asymmetric supercapacitors

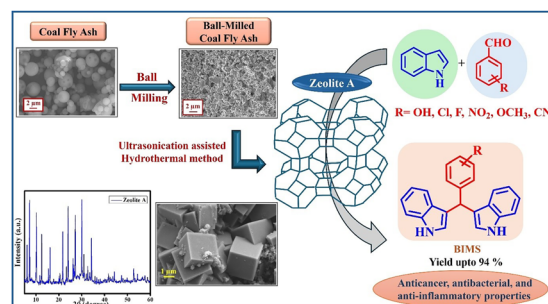
Farhan Ahmad, Abdul Shakoor, Ahsan Iqbal, Asif Mahmood, Waheed Al-Masry, Farooq Ahmad and Shahid Atiq*



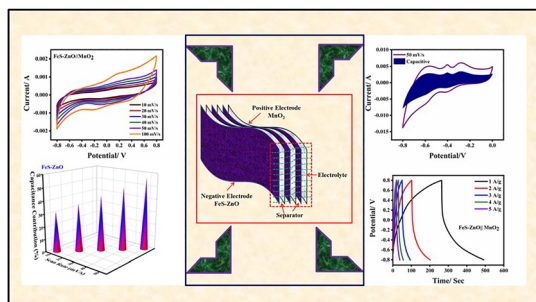
2955

Zeolitization of fly ash for synthesis of pharmaceutically important bis(indolyl)methane derivatives

Aashima Mahajan, Loveleen K. Brar* and Manmohan Chhibber*



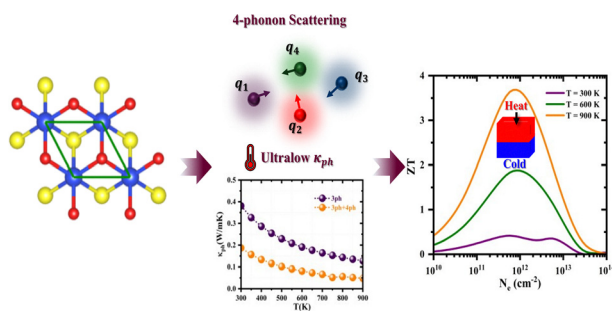
2971



Exploring the storage applications of FeS–ZnO nanocomposite as a negative electrode for asymmetric supercapacitors

Junaid Riaz and Amina Bibi*

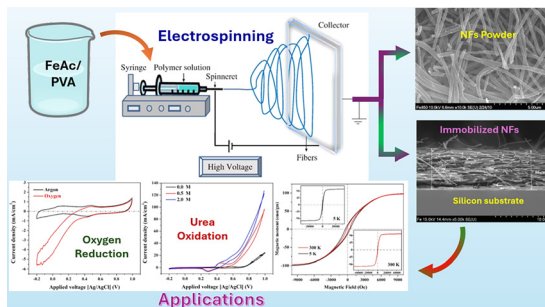
2982



High thermoelectric power conversion efficiency of an earth-abundant Janus silicon oxy-sulfide monolayer: a first-principles study

Zakariae Darhi,* Mounaim Bencheikh, Ravindra Pandey and Larbi El Farh

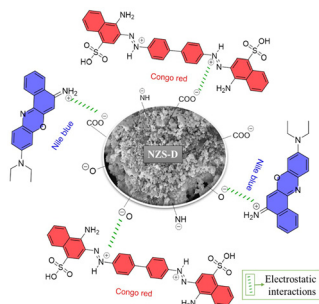
2991



Fe-embedded graphitic carbon nanofibers for efficient urea electrooxidation and stable oxygen reduction reaction in acidic media

Nasser A. M. Barakat

3004



Exploring sustainable water treatment: comprehensive analysis of an NZS-D nanocomposite for enhanced dye adsorption

Md. Sajid, Mohammed K. Al Mesfer, Mohd Danish, Atul Sharma and Saif Ali Chaudhry*

