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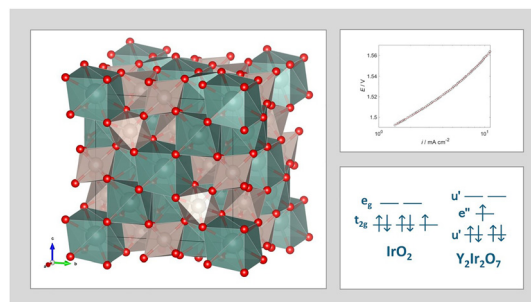
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REVIEWS

9340

A review of rare earth ruthenate pyrochlores as OER electrocatalysts in acidic media

Megan Heath,* Svein Sunde and Frode Seland

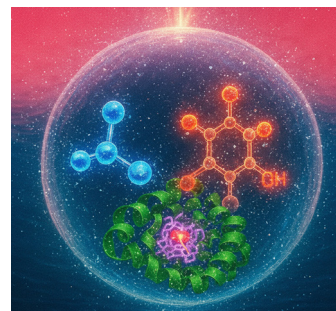


COMMUNICATIONS

9364

Enhanced treatment uniformity of chemical and biological liquids in cold atmospheric plasma system using gas bubble mixing

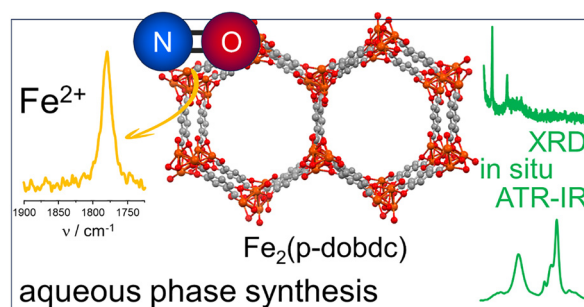
Ha M. Nguyen,* Haoyu Cheng, Yuting Wu, Benjamin B Minkoff, Thao T. Nguyen, Mark P. Richards, Michael R. Sussman, Hau D. Le and J. Leon Shohet



9375

Rapid, facile synthesis of Fe²⁺-MOFs in water at ambient conditions

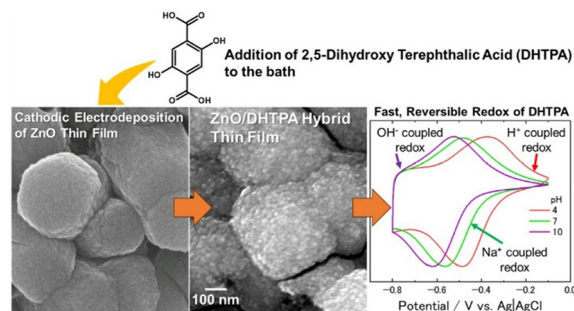
Iliia Kochetygov* and Davide Ferri*



9380

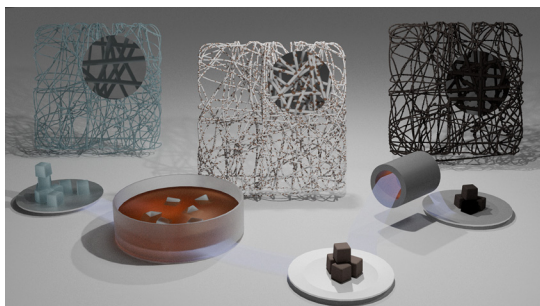
Redox active ZnO/2,5-dihydroxy terephthalic acid hybrid thin films prepared by one-step electrodeposition

Satoshi Chubachi, Lauren Aheran, Yuya Harada, Tensho Nakamura, David Punihaole and Tsukasa Yoshida*



COMMUNICATIONS

9386

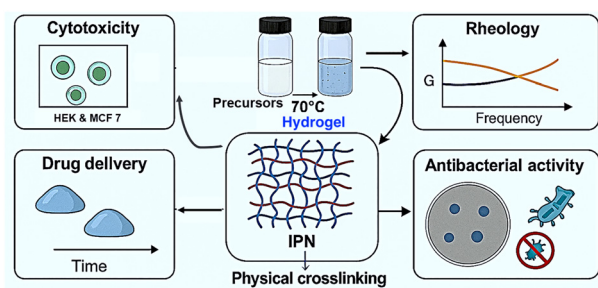


Multifunctional flexible carbon aerogels based on sustainable bacterial cellulose

Seeni Meera Kamal Mohamed,* Benjamin Ignatzi, Rebekka Probst, Beruktayet Fekadu, Max Zinke, Lennart Barth, Marina Schwan, Marion Bartsch and Barbara Milow

PAPERS

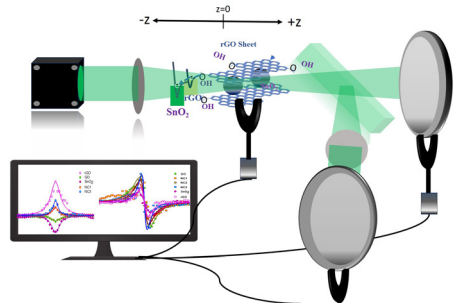
9391



Physically crosslinked poly(methacrylic acid-co-acrylamide)/gelatin-chitosan (poly-MAGC) interpenetrating polymer network hydrogels for drug delivery and antibacterial activity

Anilkumar Yamala, Rathangpani Pandit, Ravi Kumar Kanaparthi, Prasanna Katti, Sivakumar Vallabhapurapu* and Ravi Kumar Pujala*

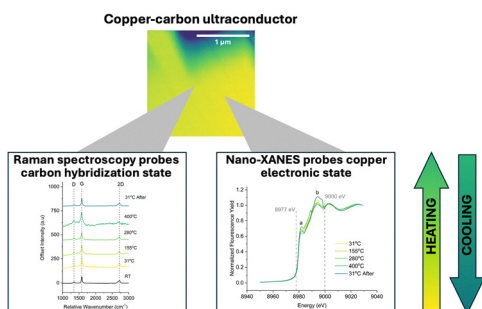
9407



Tuning the nonlinear optical properties of SnO₂-rGO nanocomposites: exploration using conventional Z-scan and thermal lensing models

Pulak Das Gupta, Md Kamal Uddin,* Suptajoy Barua, Umma Sumaia Akter Meem, Md. Jubair Ahmed Surov, Tanvir Ahmed, Md Wahadoszamen, Rumana A. Jahan and Ishtiaque M. Syed

9427



Investigating the mechanism of copper-carbon interactions in ultraconductor materials *via in situ* thermal X-ray and Raman spectroscopy

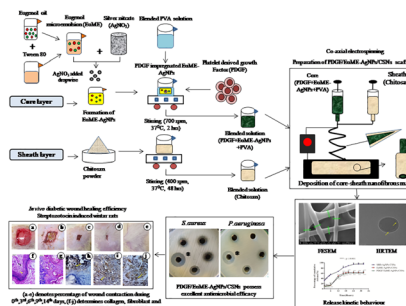
N. Warren, E. Donahue, U. Yunusa, A. Pattammattel, B. Ma and E. Sprague-Klein*



9437

PDGF-loaded eugenol-impregnated biocompatible nanofibrous scaffolds for enhanced diabetic wound healing and vascularization

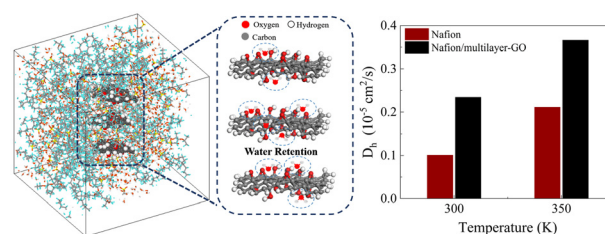
Lakshimpriya Sethuram and Natarajan Chandrasekaran*



9465

Enhanced hydronium ion diffusion in proton exchange membranes reinforced with multilayer graphene oxide: new insights into water retention and ion mobility using molecular dynamics simulation

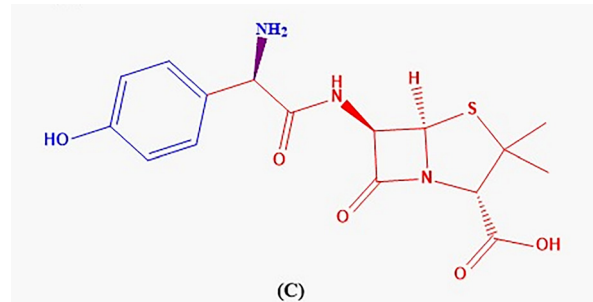
Sachin Kumar Varshney and Poornesh Kumar Koorata*



9476

Amoxicillin antibiotic with potential anticancer and antidiabetic activity: acetaldehyde–amoxicillin Schiff base and its vanadyl complex with DFT and docking investigation

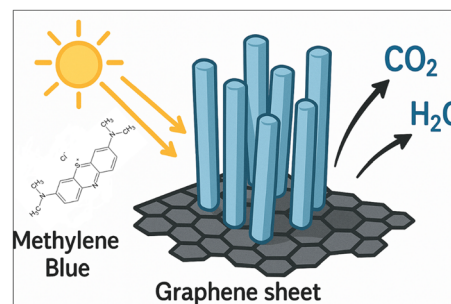
Hadeel M. Banbela, Reema H. Aldahiri, Amrajaa S. Abubakr, Magda F. Mohamed and Safaa S. Hassan*



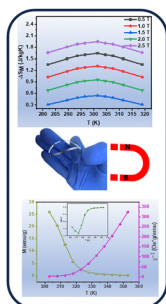
9495

Microwave-assisted synthesis of graphene–ZnO (Gr–ZnO) nanorods for efficient solar photocatalytic removal of methylene blue as a model pollutant dye

Laura Khamkhash, Alima Bazanova, Kuralay Rustembekkyzy, Bachir Yaou Balarabe and Timur Sh. Atabaev*



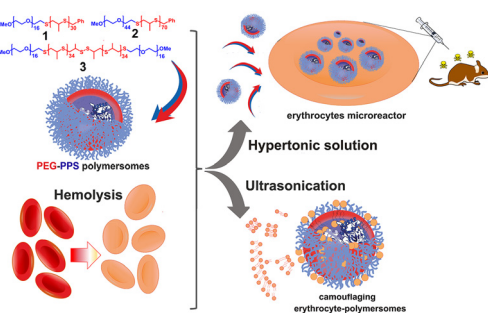
9505



Correlating critical behaviour and the magnetocaloric effect in Fe–Hf–Zr–B–Cu metallic glasses

Anjana Vinod, D. Arvindha Babu, Manivel Raja Muthuvel, S. Srinath and W. Madhuri*

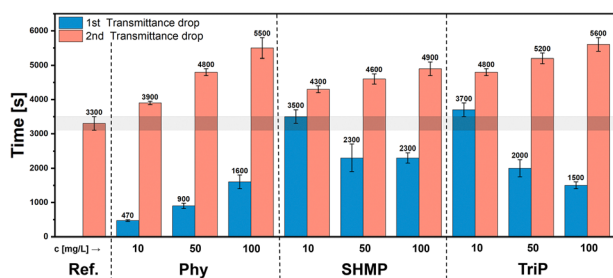
9516



Enzyme-containing double layer polymersomes coated by erythrocytes as a biomimetic nanoscavengers for *in vivo* protection from toxicants

Tatiana Pashirova,* Dmitry Tatarinov, Zukhra Shaihutdinova, Albina Malanyeva, Olga Vasileva, Alexey Rogov, Vladimir Evtjugin, Andrey Nemtarev, Aida Gabdoulkhakova, Eric Chabrière, Pauline Jacquet, David Daudé and Patrick Masson*

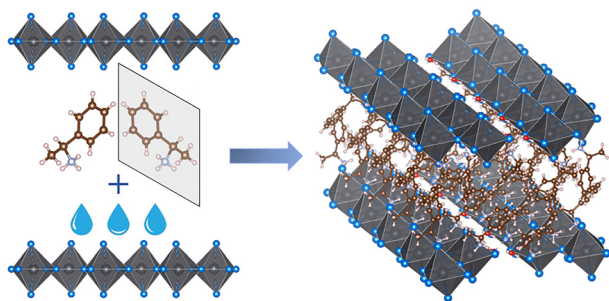
9528



Phosphate additive modification of C–S–H and C–A–S–H crystallization pathways

Yannick H. Emminger, Annika Bastian, Luca Ladner, Tobias Steiner and Cristina Ruiz-Agudo*

9545



Chirality-driven dimensionality and broadband emission in lead bromide perovskites

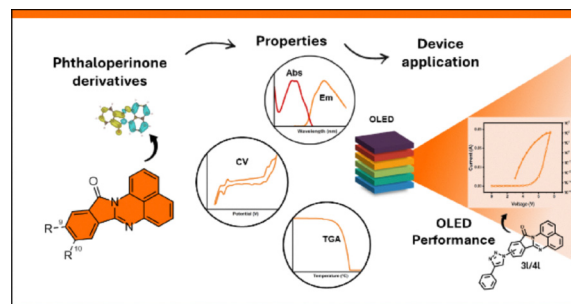
Cássio C. S. Soares, Carlos Mera Acosta, Fábio F. Ferreira, Aryane Tofanello, Mayra A. P. Gómez, Alejandro P. Ayala, J. R. Toledo, Yara Galvão Gobato, Maykon A. Lemes, Carlos W. A. Paschoal and José A. Souza*



9556

A thorough and comprehensive study of novel phthaloperinone derivatives: from synthesis and property evaluation to applications in light-emitting diodes

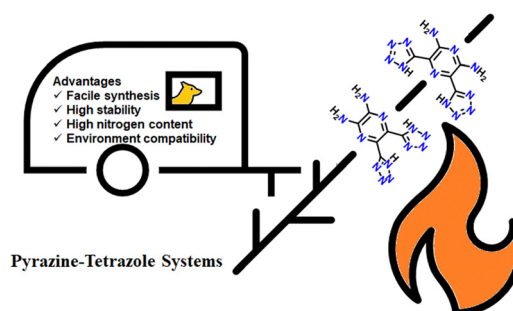
Ana C. Amorim,* Jorge Morgado, João P. Prates Ramalho, Hugo Cruz, Carla Cunha, José A. Paixão, J. Sérgio Seixas de Melo, Susana M. M. Lopes, Luís C. Branco and Anthony J. Burke*



9568

Design and synthesis of thermally robust pyrazine–tetrazole hybrids as high-nitrogen energetic materials

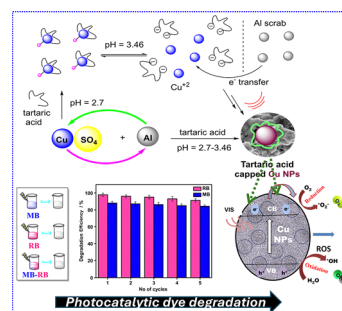
Jatinder Singh, Richard J. Staples and Jean'ne M. Shreeve*



9575

Redox-driven synthesis of stable copper nanoparticles *via* metal displacement and their application in organic dye degradation

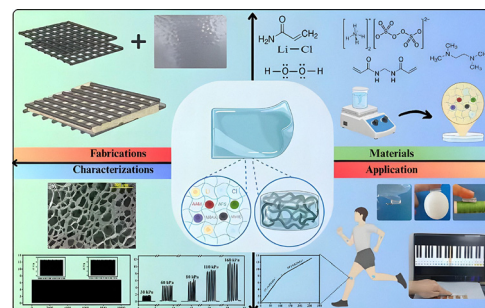
Rajanikumar Kandikonda, Govindhasamy Murugadoss, Nachimuthu Venkatesh, Siva Shankari Velmurugan Subbaraj, Divya Palani, Suneetha Thota, Rakesh Kumar Rajaboina, Haranath Divi, Manikandan Dhayalan,* Anuchit Phanumartwiwath,* Chenna Reddy Mallu* and Uday Kumar Khanapuram*



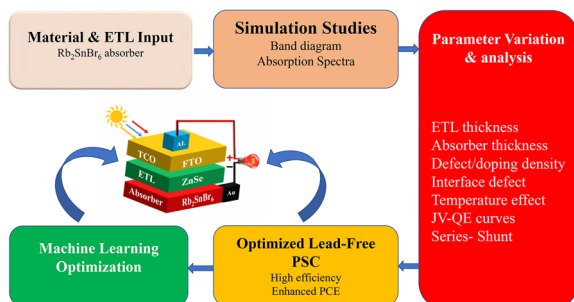
9590

Flexible fabric-integrated PAAm–LiCl hydrogel pressure sensor for wearable and soft robotics applications

Liza Liza, Md Homaune Kabir, Mohashin Kabir, Md Nuramurtada Rafi, Xu Ruidong, Md Ashikur Rahman, Tarikul Islam* and Tian Mingwei*



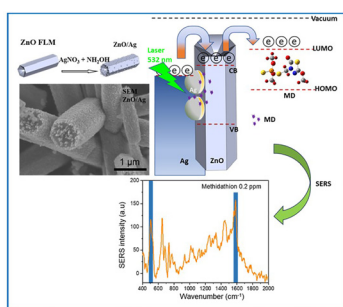
9602



Simulation and machine learning driven optimization of Rb_2SnBr_6 -based lead-free perovskite solar cells using diverse ETLs for enhanced photovoltaic performance

Md. Selim Reza, Avijit Ghosh,* Asadul Islam Shimul, Saeed Hasan Nabil, Manjuara Akter, Aijaz Rasool Chaudhry, Dipongkar Ray Sobuj, Yedluri Anil Kumar, Shaikat Biswas, Khorshed Alam and Maida Maqsood

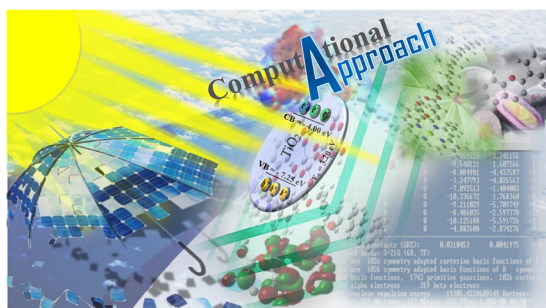
9627



Fabrication and the highly sensitive SERS performance of Ag-decorated ZnO flower-like microrods for methidathion detection

Nguyen Dac Dien, Thi Thu Ha Pham,* Xuan Hoa Vu, Ngo Thi Lan, Tran Thu Trang, Pham Thi Nga, Pham The Chinh, Truong Xuan Vuong, Thi Thu Thuy Nguyen, Cao Thanh Hai, Tran Thi Kim Chi, Tran Thi Huong Giang, Pham Thanh Binh, Nguyen Trong Nghia and Nguyen Duc Toan

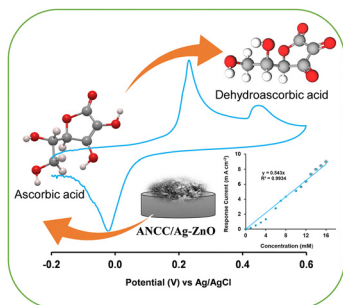
9641



Optimizing DSSC dyes: investigating synergistic interactions of chlorophyll *b* and anthocyanin with TiO_2 through TD-DFT methodology

Muneer Hussain,* Tahmineh Jalali,* Leila Maftoon-Azad and Shahriar Osfouri

9655



The efficiency of an aminated nanocrystalline cellulose stabilized binary Ag–ZnO nanocomposite as an electrode platform for electrochemical sensing of ascorbic acid

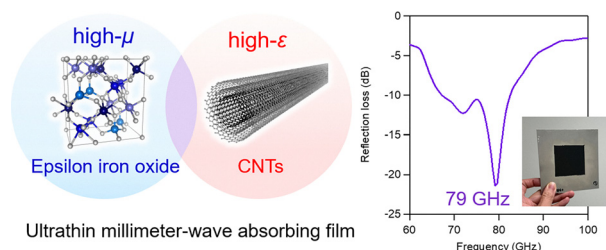
Md. Mahabur Rahman, Md. Sohel Rana, Hideto Minami, Md. Mahbubor Rahman, Md. Abdur Rahman, Md. Ashraf Alam and Hasan Ahmad*



9672

Ultrathin millimeter-wave-absorbing film for automotive radars based on an epsilon iron oxide/carbon nanotube composite material

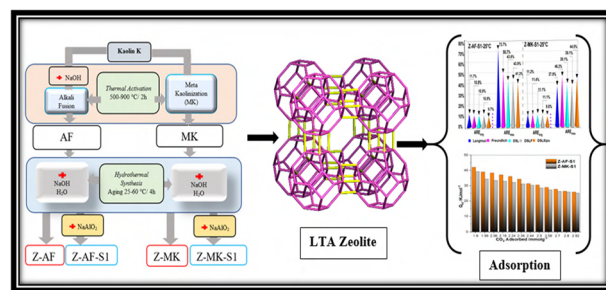
Asuka Namai,* Marie Yoshikiyo, Jessica MacDougall, Takashi Ono, Takahiro Asai, Masayuki Hara, Momoe Kanai, Takayuki Yoshida, Yasuto Miyamoto, Kenji Sakane, Shinji Kurahashi, Toshifumi Nishio and Shin-ichi Ohkoshi*



9678

Cameroonian natural clay derived Linde type LTA zeolite: demystifying and understanding the impact of the synthesis process on adsorption efficiency

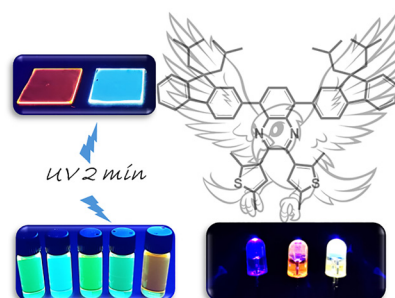
Cyrille Ghislain Fotsop, Alexandra Lieb and Franziska Scheffler*



9696

Controlling emissive behaviour through molecular design: 2,3-bis(2,5-dimethylthiophen-3-yl)quinoxalines with variable fluorene substitution

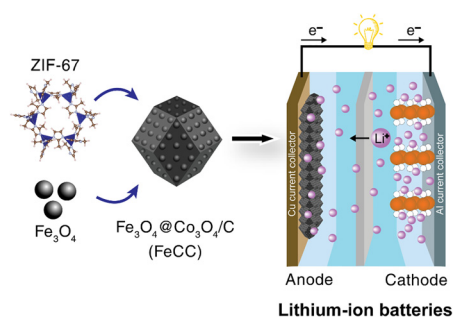
Liudmila Loghina,* Jiri Jancalek, Jakub Houdek, Zuzana Zmrhalova, Roman Jambor and Miroslav Vlcek



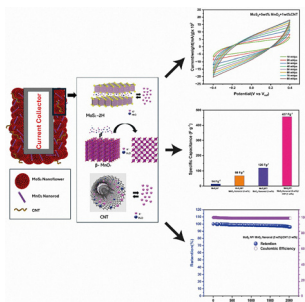
9709

Optimization of the carbonization temperature and composition of FeCC composites for enhanced lithium-ion battery anode performance

Do Thao Anh, Nguyen Bao Tran, Quang Ngoc Tran, Hanh Kieu Thi Ta, Bach Thang Phan, Tuan Loi Nguyen and Nhu Hoa Thi Tran*



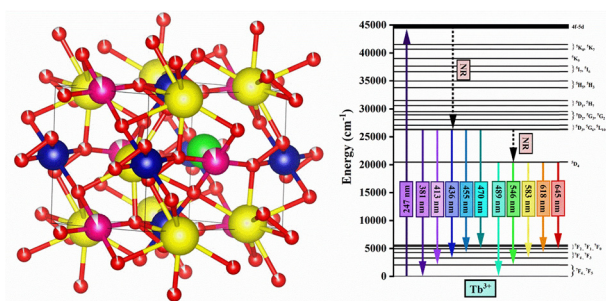
9723



Hierarchical integration of a MoS₂ nanoflower/MnO₂ nanorod/CNT ternary composite electrode for high capacitance and long-term cycling stability

Md. Arif Hossain Chowdhury Anik, T. M. A. Iqbal Bin Belal, Md Shafayatul Islam, Koushik Roy Chowdhury, Mrinmoy Brahma, Shad Inquiad Mim, Aninda Nafis Ahmed* and Ahmed Sharif*

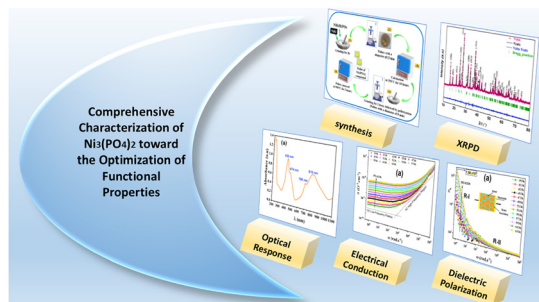
9746



Negative thermal quenching and optically stable Tb³⁺-doped tungstate phosphor for high temperature lighting and advanced thermometry applications

R. Kiran, S. Masilla Moses Kennedy, A. Princy, M. I. Sayyed, Aljawhara H. Almuqrin and Sudha D. Kamath*

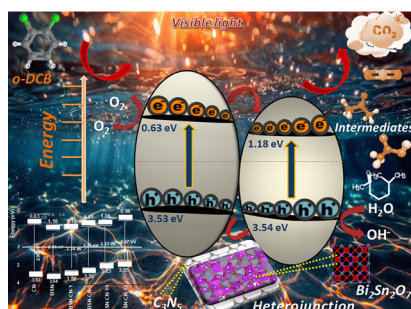
9761



Investigation of electronic parameters, carrier transport mechanisms *via* the correlated barrier hopping model, electrothermal NTCR effects, and polarization contributions to the dielectric response of Ni₃(PO₄)₂ orthophosphates synthesized by the sintering process

Iheb Garoui, Sourour Ben Yahya*, Noweir Ahmad Alghamdi, Iskandar Chaabane, Abderrazek Oueslati and Bassem Louati

9779



Enhanced synergistic photocatalysis: a thorough investigation of Bi₂Sn₂O₇/C₃N₅ heterojunctions

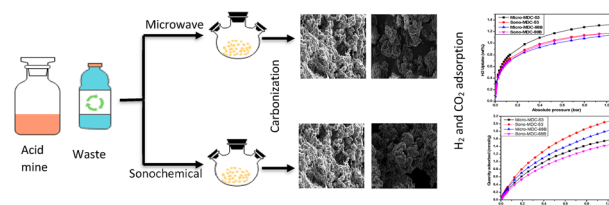
Adarsh Kumar, Deepak Tyagi, Sagnik Mitra, Jitendra Bahadur, Avesh K. Tyagi and Kaustava Bhattacharyya*



9806

Synthesis of iron-based metal–organic frameworks and carbon derivatives *via* unconventional synthetic methods and waste precursors with potential for gas storage

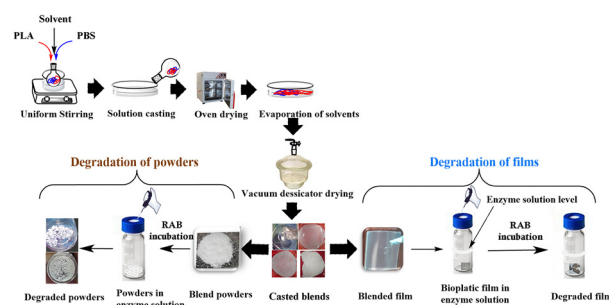
Keaoleboga Mosupi, Nqobile T. Mthembu, Mike Masukume, Nicholas M. Musyoka* and Henrietta W. Langmi*



9817

Test-tube model for rapid and accelerated biodegradation of poly(lactic acid)/poly(butylene succinate) blended bioplastic obtained from solution casting

Shreetam Parida, Nivethitha Ashok and Rajendra Kurapati*



9829

A conductive poly(*m*-aminophenol) interface for α -lipoic acid detection in NELL-1 membranous nephropathy

Kanwal Bashir, Adnan Mujahid and Adeel Afzal*

