

RSC Applied Interfaces

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See Leila F. Deravi *et al.*, pp. 1591–1598.
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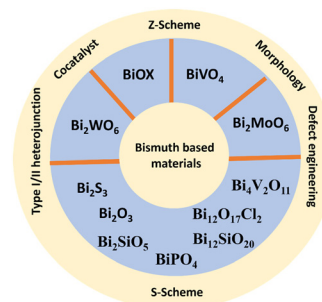
Inside cover
See Hiroaki Suzuki *et al.*, pp. 1599–1606.
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REVIEWS

1507

Recent advances in interface engineering of bismuth-based materials for photocatalytic CO₂ reduction

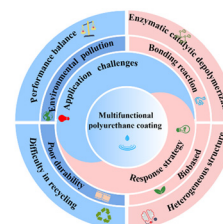
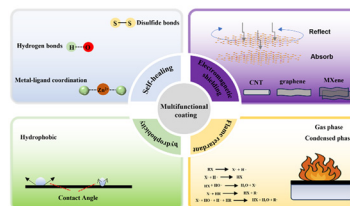
Swetha S. M. Bhat* and Girish Kumar S.



1527

Current states and future challenges of multifunctional flame-retardant polyurethane coatings

Xingyao Li, Kangcheng Xu, Jiangtao Wu, Ye-Tang Pan,* Xiangmei Li, Jiyu He* and Rongjie Yang





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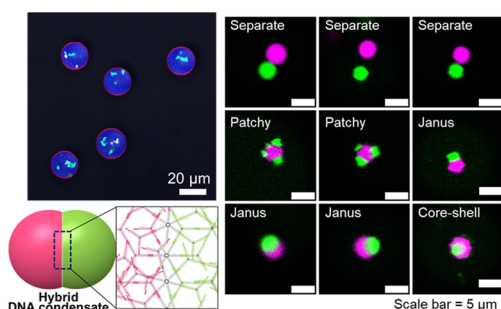
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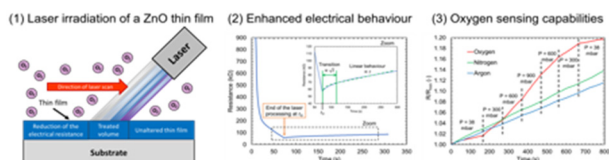
1599



Formation dynamics of patchy/Janus DNA condensates in monodisperse giant vesicles generated using microfluidics

Ryotaro Yoneyama, Ryota Ushiyama, Tomoya Maruyama, Reiko Sato, Mamiko Tsugane, Masahiro Takinoue and Hiroaki Suzuki*

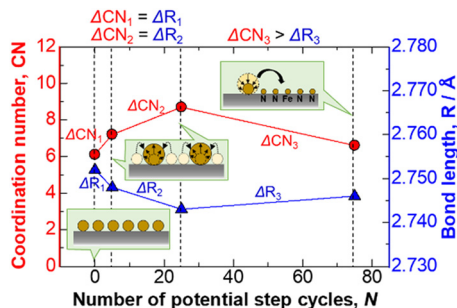
1607



Laser annealing of transparent ZnO thin films: a route to improve electrical conductivity and oxygen sensing capabilities

A. Frechilla, J. Frechilla, L. A. Angurel,* F. Toldrá-Reig, F. Balas, E. Martínez, G. F. de La Fuente and D. Muñoz-Rojas*

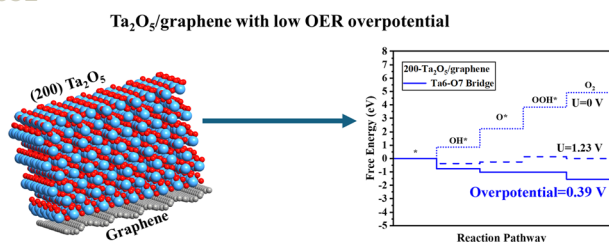
1621



Sustainable activation of the PtCl_n/Fe-N-C cathode for PEFCs through repeated subnanometer sizing and coarsening

Hiroshi Yano*

1631



Facet- and graphene-support-dependent activity of Ta₂O₅ for oxygen evolution reaction

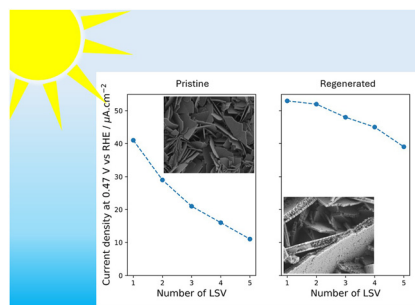
Ebrahim Ghasemy, Ana C. Tavares* and Kulbir K. Ghuman*



1642

Photoelectrochemical degradation and regeneration of $\text{Ca}_2\text{Fe}_2\text{O}_5$ photocathodes

Louise De Cian, María Isabel Díez-García, Benjamin Goldman and Kevin Sivula*

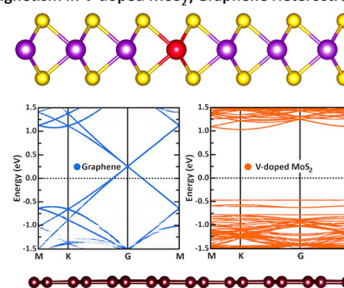


1650

Interface magnetism in vanadium-doped MoS_2 /graphene heterostructures

Diem Thi-Xuan Dang, Yen Thi-Hai Pham, Da Zhou, Dai-Nam Le, Mauricio Terrones, Manh-Huong Phan* and Lilia M. Woods*

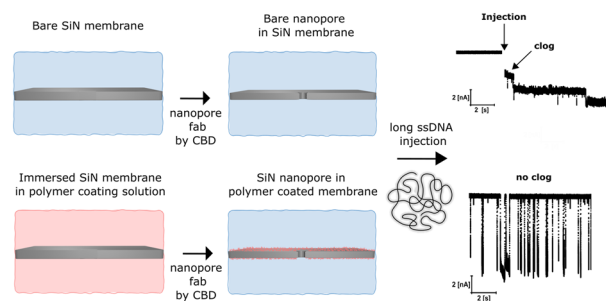
Magnetism in V-doped MoS_2 /Graphene Heterostructures



1661

Unraveling clogging of solid-state nanopores by selective polymer coating: surface potential measurements and sensing of long single stranded DNA

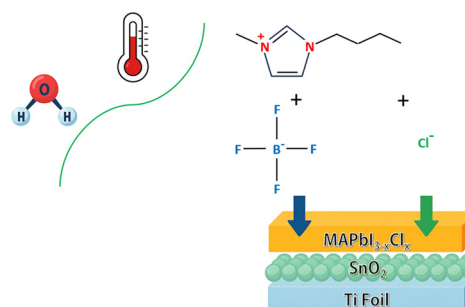
Mohamed Yassine Bouhamidi, Zachary Roelen and Vincent Tabard-Cossa*



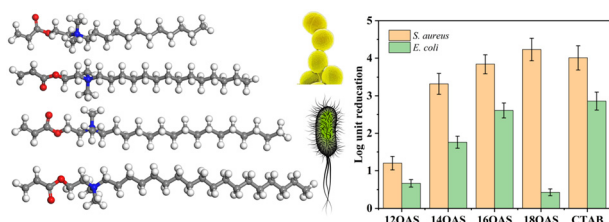
1674

Ionic liquid-modified perovskite films for enhanced solar cell stability

Udit Tiwari,* Jordan Cole, Zheshen Li, Alex Walton, Liam P. Dwyer, Ben F. Spencer, Sergey Zlatogorsky and Karen L. Syres*



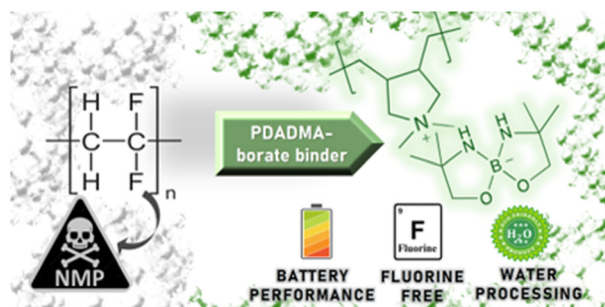
1690



Quaternary ammonium surfmers: synthesis, characterization and antibacterial performance

Cailing Li, Jinlu Zhong, Yanan Weng, Sensen Xie, Shuang Li and Dinghua Yu*

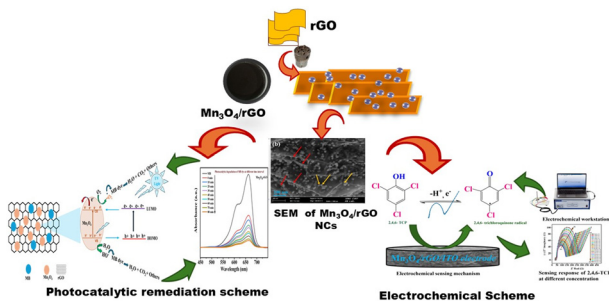
1702



Water-soluble fluorine-free poly(ionic liquid)borate binders for Li-ion battery cathodes

Haris Amir, Ana Clara Rolandi, Gabriele Lingua, Maria Forsyth, Małgorzata Swadźba-Kwaśny, John D. Holbrey,* David Mecerreyes and Nerea Casado*

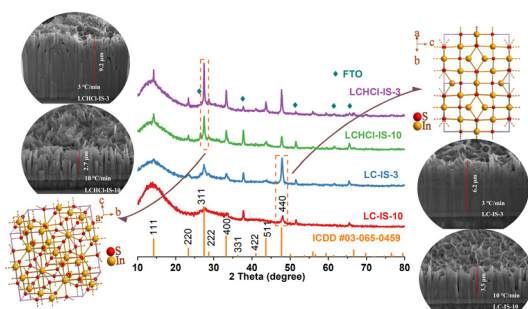
1715



Nanoengineered Mn₃O₄/rGO electrophotocatalyst with dual functionality for detection of 2,4,6-trichlorophenol and degradation of methylene blue dye in environmental monitoring and cleanup

Diksha Singh, Anshu Kumar Singh, Ranjana Verma and Jay Singh*

1734



Tailoring the crystallographic orientation and thickness of indium sulfide thin films for enhanced photoelectrochemical water splitting

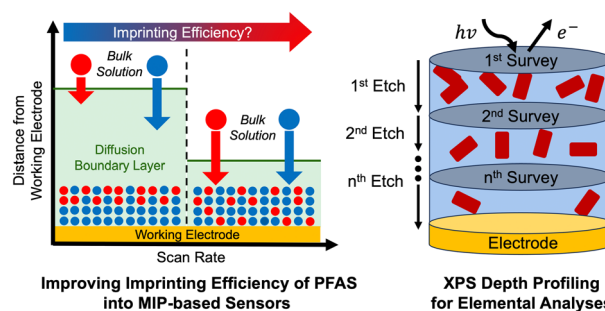
Xiuru Yang, Arthur Graf, Hong Chang, Yongde Xia, Asif Ali Tahir* and Yanqiu Zhu*



1747

Role of the diffusion boundary layer in the molecular imprinting of PFAS in poly(*ortho*-phenylenediamine) toward improving MIP-based sensors

Cameron S. Malloy, Matthew J. Danley, Daniel A. Bellido-Aguilar, Logan E. Chung and Suchol Savagatrup*



1758

Sustainable carbon-metal oxide composites from waste sources: synthesis, characterization, and mechanical properties

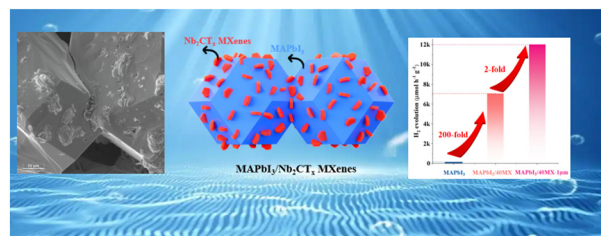
Subhabrata Senapati, Sharmistha Anwar, Vijay Singh Parihar,* Rama Kanta Layek, P. K. Patra and Mrityunjy Mahato*

Towards Light Weight Composite		
Materials	Elastic Modulus (GPa)	Density Normalized Elastic Modulus (GPa g ⁻¹ cm ³)
 MO-CNT Composite	10.19 - 23.31	4.22 - 9.66
 Steel	210	26.81

1770

Modulation of the photocatalytic activity of MAPbI₃ crystals via Nb₂CT_x MXenes for high-efficiency photocatalytic hydrogen production

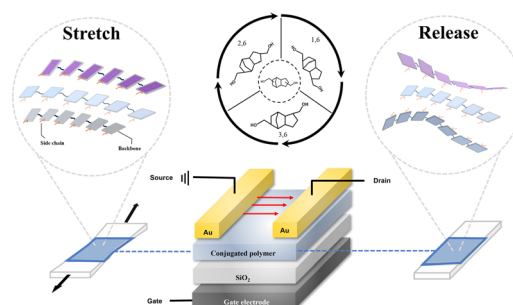
Ruiyan Sun, Lili Gao,* Deng Li, Hua Wang, Fan Yang, Jin Wang, Ke Hao, Haijiao Xie and Ping Hu*



1784

N-type semiconducting polymers with an improved isotropic mobility-stretchability stability by using structural isomers as conjugation break spacers

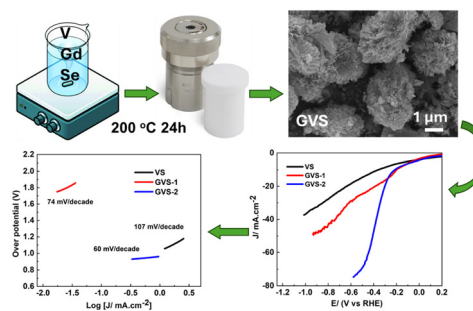
Ming-Han Chen, Yu-Chun Huang, Fu-En Szu, Jung-Yao Chen, Man-kit Leung and Yan-Cheng Lin*



1838

Hydrogen evolution reaction by Gd-doped transition metal dichalcogenide VSe₂ nanoflowers

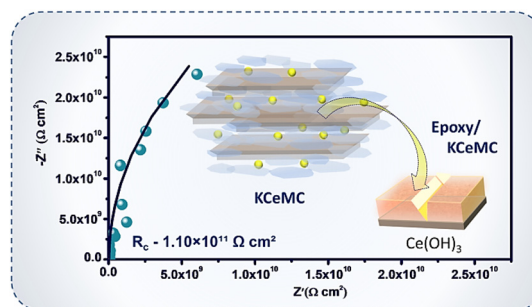
Abinash Parida, Banaja Dandasena and Ramakanta Naik*



1850

Synergistic effect of a one-pot synthesised kaolinite–cerium melamine cyanurate hybrid for an improved metal protective coating

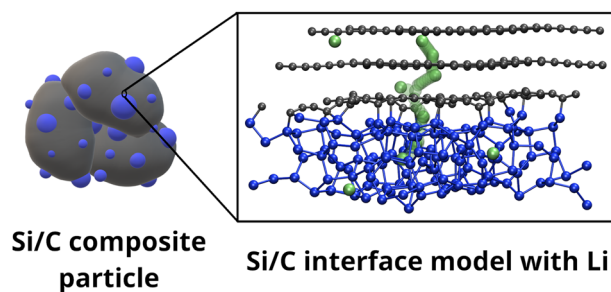
Nithyaa Jayakumar and Nishanth Karimbintherikkal Gopalan*



1863

Ab initio study of lithium diffusion at a layered carbon/amorphous silicon interface

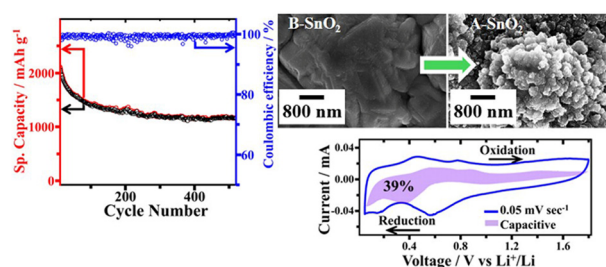
Christoph Kirsch and Daniel Sebastiani*



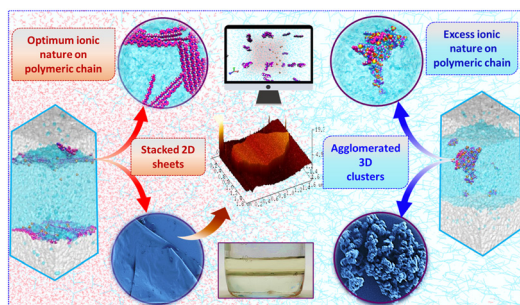
1877

Tin-oxide-based binder-free lightweight nanostructured anode with high reversible capacity and cyclability for lithium-ion batteries, manifesting the interfacial effect

Adi Pratap Singh, Banadeep Dutta and Sudeshna Chattopadhyay*



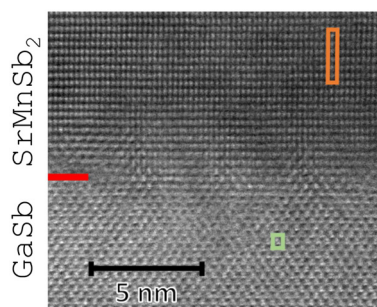
1889



Insights from theory and experiments on the dynamics of controlled *in situ* polymerization of pyrrole at the liquid-liquid interface

Aiswarya Chandran, Hashima Madathingal, P. N. Bala Subramanian* and Mini Mol Menamparambath*

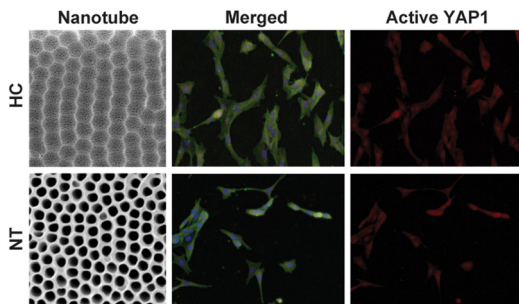
1903



Interface effects in molecular beam epitaxy of SrMnSb₂ on InAs and GaSb: segregation and endotaxy

Thomas J. Rehaag, Ethan D. N. Dommett, Zhuo Yu, Hong Yi Cheng Lin, David Ironmonger, Yisong Han and Gavin R. Bell*

1913



Exploring the influence of anodization-derived nanotubular and honeycomb surfaces on the osteogenic behaviour of human MG63 osteoblastic cells

Ryan Berthelot and Fabio Variola*

