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IN THIS ISSUE

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Cover
See Yang Xu *et al.*, pp. 2028–2041. Image reproduced by permission of Yang Xu from *Mater. Adv.*, 2023, **4**, 2028.

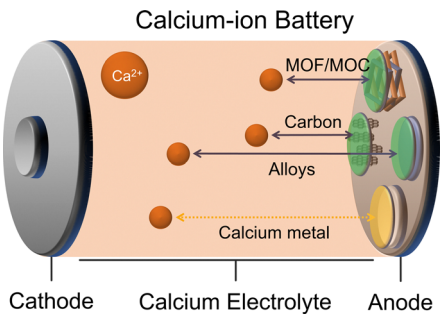
Inside cover
See M. Soorani *et al.*, pp. 2078–2087. Image reproduced by permission of Mitra Soorani from *Mater. Adv.*, 2023, **4**, 2078. Image credit: NASA/Johns Hopkins APL/Ben Smith.

REVIEWS

2028

Exploring anodes for calcium-ion batteries

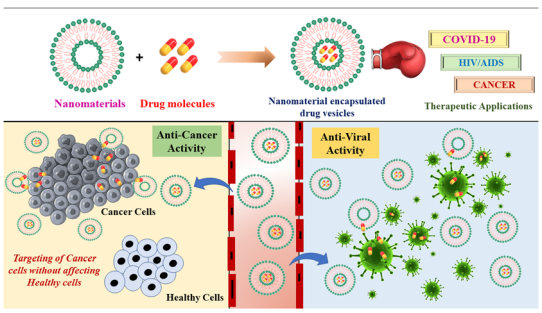
Henry R. Tinker, Christopher A. Howard, Min Zhou and Yang Xu*



2042

Recent advancement in nanomaterial-encapsulated drug delivery vehicles for combating cancer, COVID-19, and HIV-like chronic diseases

Suparna Paul, Subhajit Mukherjee and Priyabrata Banerjee*



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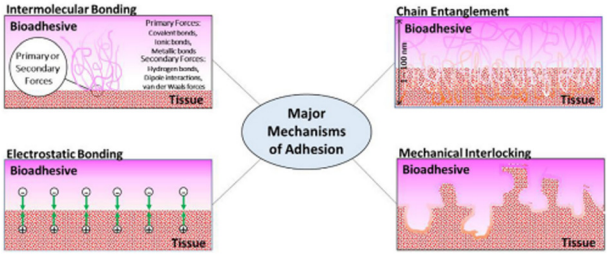
REVIEWS

2062

Bioadhesives for clinical applications – a mini review

Uma K.*

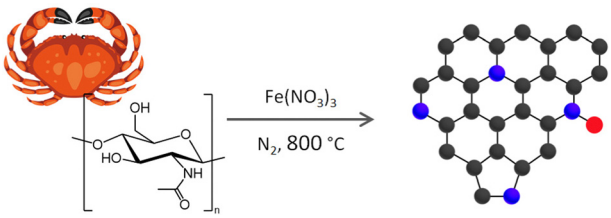


COMMUNICATION

2070

The effect of nitrogen on the synthesis of porous carbons by iron-catalyzed graphitization

Robert D. Hunter, Emily C. Hayward, Glen J. Smales, Brian R. Pauw, A. Kulak, Shaoliang Guan and Zoe Schnepp*

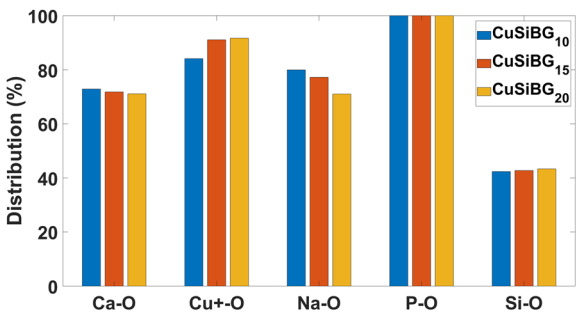


PAPERS

2078

Structural effects of incorporating Cu^{+} and Cu^{2+} ions into silicate bioactive glasses using molecular dynamics simulations

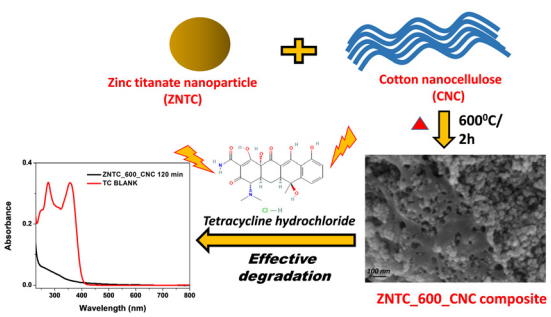
M. Soorani,* E. Mele and J. K. Christie



2088

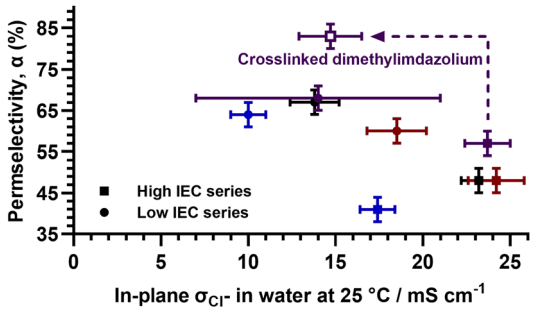
Photodegradation of emerging contaminant tetracycline using a zinc titanate nanocellulose composite as an efficient photocatalyst

Jahnabi Gogoi and Devasish Chowdhury*



PAPERS

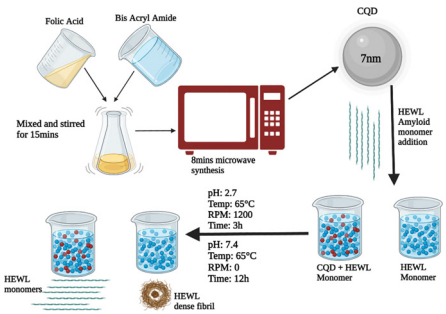
2099



Changes in permselectivity of radiation-grafted anion-exchange membranes with different cationic headgroup chemistries are primarily due to water content differences

Arup Chakraborty, Ihtasham Salam, Mehdi Choolaei, Judy Lee, Carol Crean, Daniel K. Whelligan, Rachida Bance-Soualhi and John R. Varcoe*

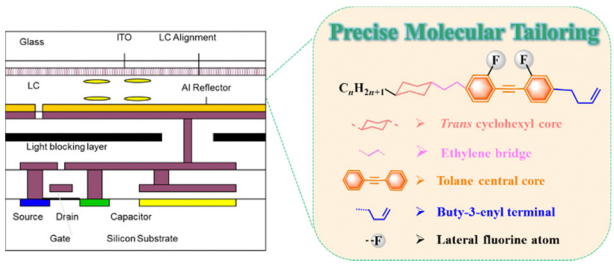
2106



A facile one-pot synthesis of water-soluble CQDs for the evaluation of their anti-amyloidogenic propensity

Aniket Mukherjee and Nandini Sarkar*

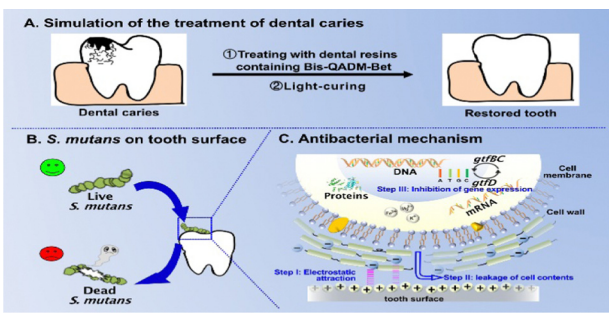
2119



High birefringence liquid crystals with a wide temperature range and low melting point for augmented reality displays

Ran Chen, Liang Zhao, Yannanqi Li, Jian Li, Pei Chen, Xinbing Chen* and Zhongwei An*

2127



Bis-quaternary ammonium betulin-based dimethacrylate: synthesis, characterization, and application in dental restorative resins

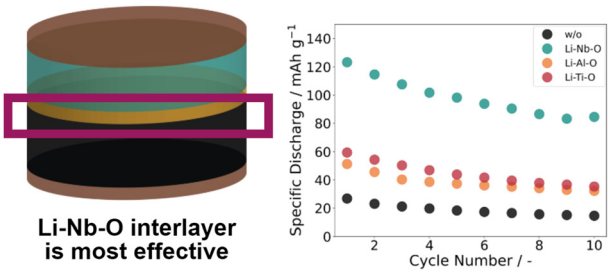
Lusi Zhang, Zhiyuan Ma, Ruili Wang,* Weiwei Zuo and Meifang Zhu

PAPERS

2138

Benchmarking the performance of lithiated metal oxide interlayers at the $LiCoO_2$|LLZO interface

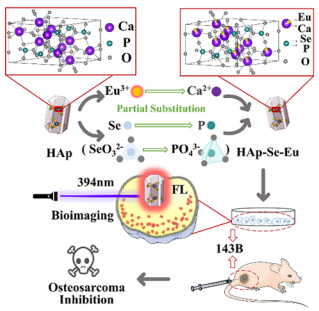
André Müller,* Faruk Okur, Abdessalem Aribia, Nicolas Osenciat, Carlos A. F. Vaz, Valerie Siller, Mario El Kazzi, Evgeniia Gilshtein, Moritz H. Futscher, Kostiantyn V. Kravchyk, Maksym V. Kovalenko and Yaroslav E. Romanyuk*



2147

A report on Se/Eu-doped hydroxyapatite: crystal structure analysis, biological property assessment, and applications in osteosarcoma inhibition and bioimaging

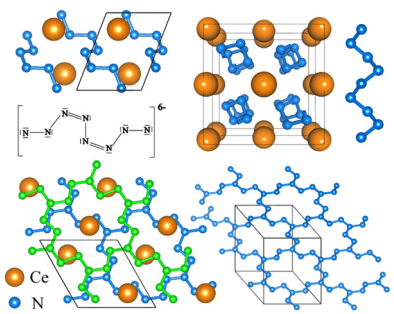
Shuoshuo Zhou, Jian Ren, Lunzhu Wang, Liting Liu and Chunlin Deng*



2162

Single-bonded nitrogen chain and porous nitrogen layer *via* Ce–N compounds

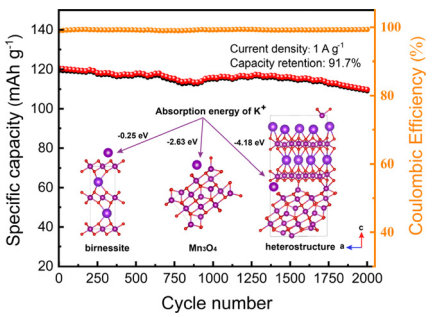
Chi Ding, Jianan Yuan, Xiaomeng Wang, Tianheng Huang, Yunlong Wang and Jian Sun*



2174

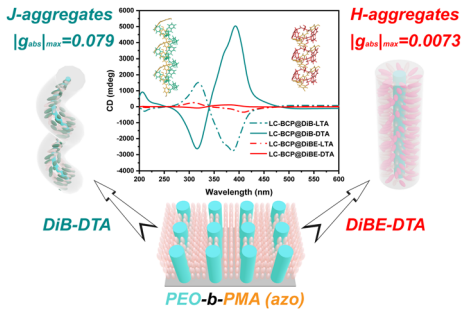
Engineering a manganese-based oxide heterostructure cathode for high-performance aqueous potassium-ion storage

Zheng Guan, Yunan Wang, Mingyue Zhang, Jie Liu, Shuangwen Li, Di Guo* and Xiaoxia Liu*



PAPERS

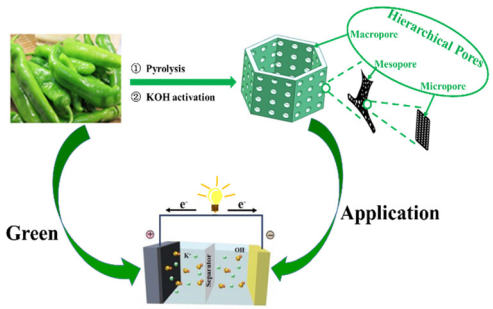
2185



Chiral amplification induced by self-assembly of different aggregation states in liquid crystal block copolymer films with chiral response

Jianan Yuan, Xuemin Lu,* Xiaojie He, Feng Zheng and Qinghua Lu*

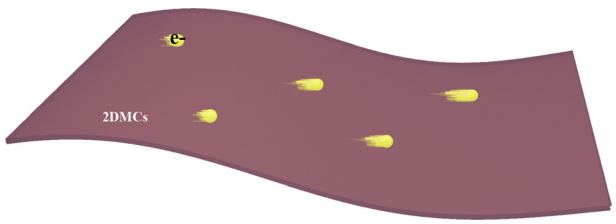
2192



Green pepper-derived hierarchical porous carbon for supercapacitors with high performance

Yicheng Zeng, Fuming Zhang, Jinggao Wu and Jing Huang*

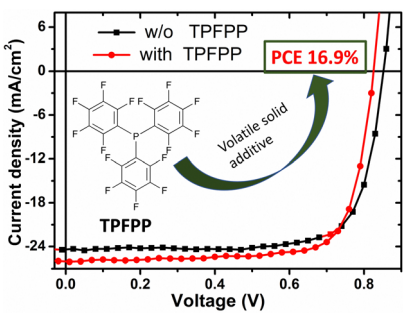
2201



Anisotropic valence band dispersion of 2D molecular crystals of C6-DPA and its charge transport dependence

Qingqing Wang,* Jinpeng Yang, Mats Fahlman and Xianjie Liu*

2207



A fluorine functionalised phosphine based solid additive for morphology control and achieving efficient organic solar cells

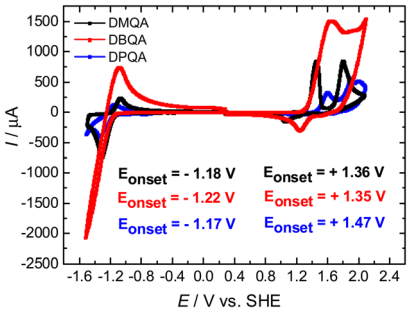
Jegadesan Subbiah* and David J. Jones*

PAPERS

2214

_N,N′_-Substituted quinacridones for organic electronic device applications

Donia Saadi, Felix Mayr, Cigdem Yumusak, Dominik Wielend, Munise Cobet, Bilge Kahraman, Cristian Vlad Irimia, Yasin Kanbur, Mateusz Bednorz, Kamil Kotwica, Amel Ben Fredj, Samir Romdhane, Markus C. Scharber, Niyazi Serdar Sariciftci and Mihai Irimia-Vladu*



2226

Broadband photoresponse in plasmon-enhanced Ga-doped ZnO

Manli Yang, Xiaoliang Weng, Muhammad Ahsan Iqbal, Chenxu Kang, Su-Yun Zhang and Yu-Jia Zeng*