

Journal of Materials Chemistry B

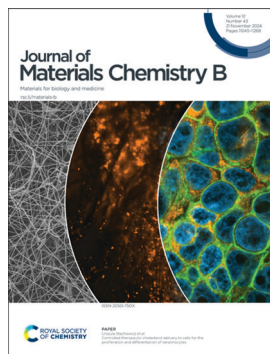
Materials for biology and medicine

rsc.li/materials-b

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 2050-750X CODEN JMCBDV 12(43) 11045–11268 (2024)



Cover

See Urszula Stachewicz *et al.*, pp. 11110–11122. Image reproduced by permission of Urszula Stachewicz from *J. Mater. Chem. B*, 2024, 12, 11110.



Inside cover

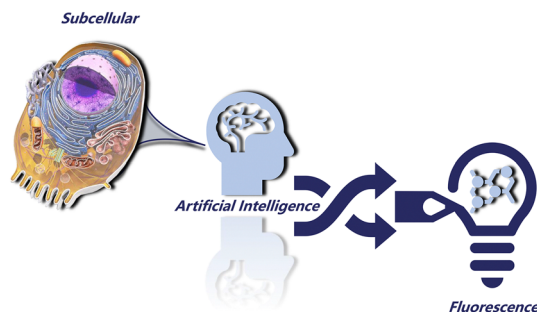
See Elisabet Gómez-González, Manuel Ocaña *et al.*, pp. 11123–11133. Image reproduced by permission of Jose M. Carrascal Rodríguez, Manuel Ocaña and Nuria O. Nuñez from *J. Mater. Chem. B*, 2024, 12, 11123.

REVIEWS

11054

AI-driven precision subcellular navigation with fluorescent probes

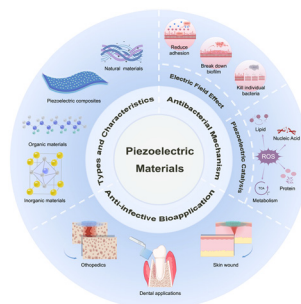
Yingli Zhu, Yanpeng Fang, Wenzhi Huang, Weiheng Zhang, Fei Chen, Jie Dong* and Wenbin Zeng*



11063

Piezoelectric materials for anti-infective bioapplications

Chen Chen, Xin Yang, Yi Liu, Jia Jia, Yiping Li, Xiaohan Dai* and Ousheng Liu



GOLD
OPEN
ACCESS

EES Batteries

Exceptional research on
batteries and energy storage

Part of the EES family

**Join
in** | Publish with us
rsc.li/EESBatteries

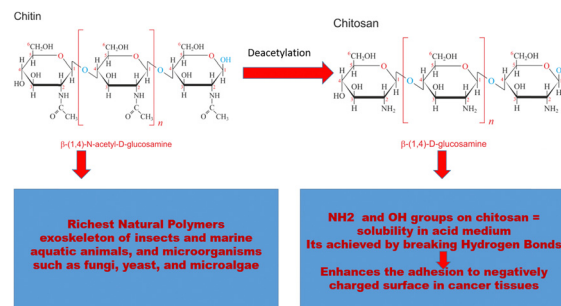


REVIEWS

11076

Chitosan-functionalized nanobubbles for precision oncology: advances in targeted cancer therapeutics

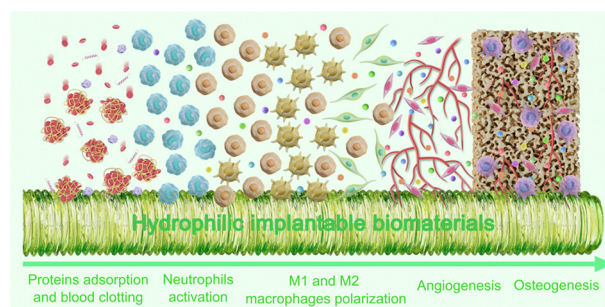
Vivek Pandey* and Tejasvi Pandey



11089

Advances in osteoimmunomodulation of biomaterials after intrabone implantation: focus on surface hydrophilicity

Xinpeng Wei, Linshan Lei, Ling Luo, Ying Zhou, Zheng Zheng* and Wenchuan Chen*

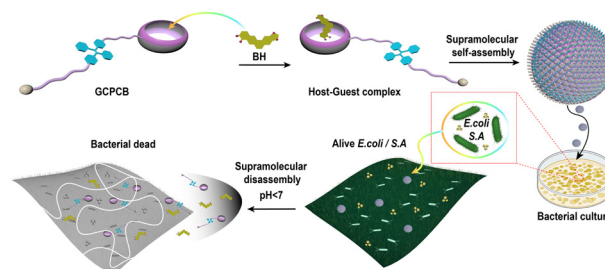


COMMUNICATION

11105

A guanidiniocarbonyl-pyrrole functionalized cucurbit[7]uril derivative as a cytomembrane disruptor for synergistic antibacterial therapy

Ruixue Han, Kehan Du, Shengke Li, Minzan Zuo, Ponmani Jeyakkumar, Hao Jiang,* Leyong Wang and Xiao-Yu Hu*

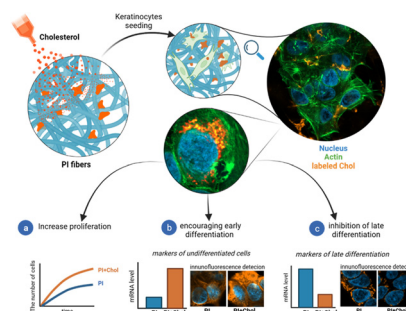


PAPERS

11110

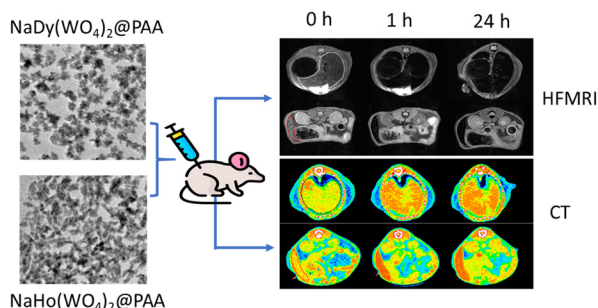
Controlled therapeutic cholesterol delivery to cells for the proliferation and differentiation of keratinocytes

Krzysztof Berniak, Ahmadreza Moradi, Agata Lichawska-Cieslar, Weronika Szukala, Jolanta Jura and Urszula Stachewicz*



PAPERS

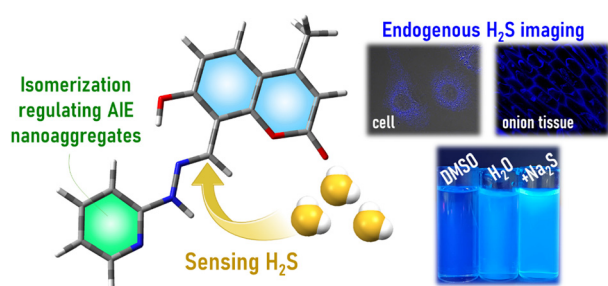
11123



Sodium lanthanide tungstate-based nanoparticles as bimodal contrast agents for *in vivo* high-field MRI and CT imaging

Elisabet Gómez-González,* Carlos Caro, Nuria O. Núñez, Daniel González-Mancebo, Jesús D. Urbano-Gámez, María L. García-Martín and Manuel Ocaña*

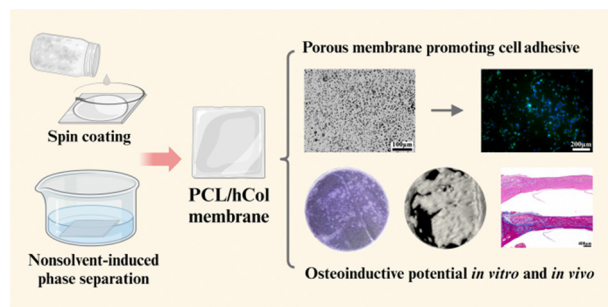
11134



Structural isomerism engineering regulates molecular AIE behavior and application in visualizing endogenous hydrogen sulfide

Yaxi Li, Yong-Xiang Wang, Dujuan Liu, Chen-Chieh Ni, Jianming Ni and Jen-Shyang Ni*

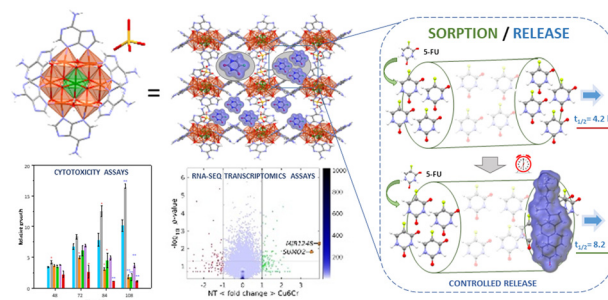
11142



Scalable fabrication of porous membrane incorporating human extracellular matrix-like collagen for guided bone regeneration

Qingyi Wang, Feng Zhou, Tiecheng Qiu, Yiling Liu, Wenxin Luo, Zhanqi Wang, Haiyun Li, E. Xiao, Qiang Wei* and Yingying Wu*

11156



Drug-delivery and biological activity in colorectal cancer of a supramolecular porous material assembled from heptameric chromium-copper-adenine entities

Sandra Mena-Gutiérrez, Ekain Maiza-Razkin, Jon Pascual-Colino, Marcos J. Araúzo-Bravo, Garikoitz Beobide, Oscar Castillo,* Ainara Castellanos-Rubio, Daniela Gerovska, Antonio Luque* and Sonia Pérez-Yáñez

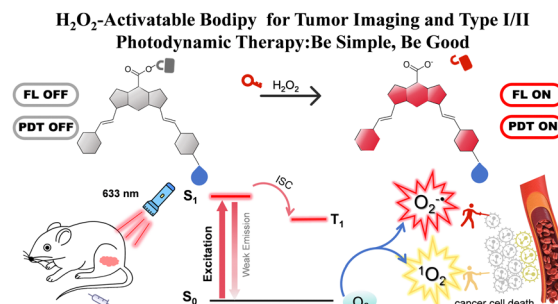


PAPERS

11165

A simple hydrogen peroxide-activatable Bodipy for tumor imaging and type I/II photodynamic therapy

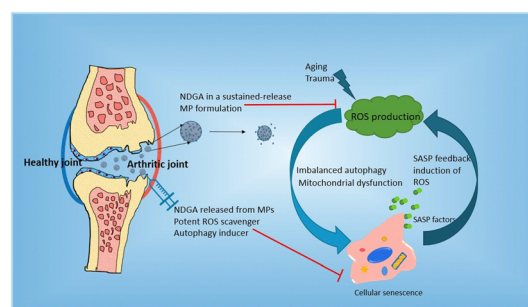
Fangqing Ge, Yujie Sun, Yu Wang, Dan Yu, Zhijia Wang,*
Fabiao Yu,* Bingran Yu* and Hongbing Fu



11172

Nordihydroguaiaretic acid microparticles are effective in the treatment of osteoarthritis

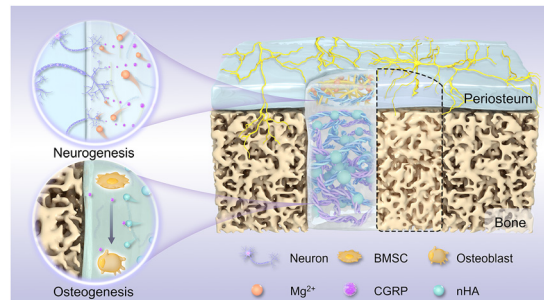
Kaamini M. Dhanabalan, Bhagyashree Padhan,
Ameya A. Dravid, Smriti Agarwal, Nicholas M. Pancheri,
Angela Lin, Nick J. Willet, Ashok Kumar Padmanabhan
and Rachit Agarwal*



11187

A bilayer hydrogel mimicking the periosteum-bone structure for innervated bone regeneration

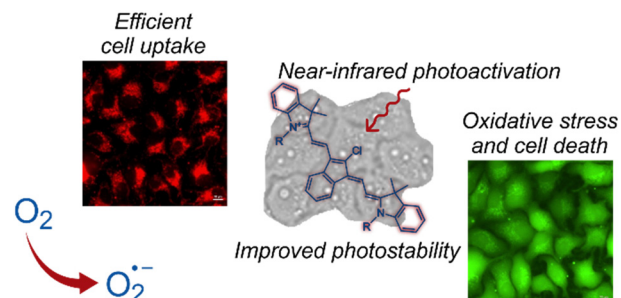
Wenhui Lyu, Yuyue Zhang, Shaopei Ding, Xiang Li,
Tong Sun, Jun Luo, Jian Wang, Jianshu Li and Lei Li*



11202

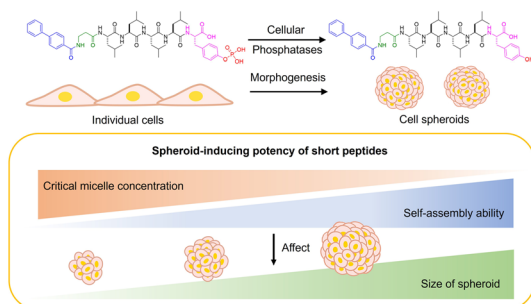
A near-infrared superoxide generator based on a biocompatible indene-bearing heptamethine cyanine dye

Nikita Bel'ko, Anna Mal'tanova, Anastasiya Bahdanava,
Anatol Lugovski, Sviatlana Fatykhava, Polina Shabunya,
Adam Smaliakou, Sergey Poznyak, Tatsiana Kulahava and
Michael Samtsov*



PAPERS

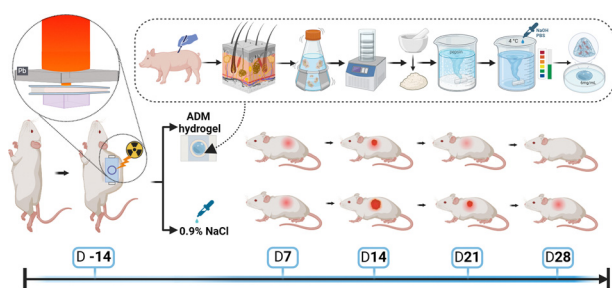
11210



Enzymatic self-assembly of short peptides for cell spheroid formation

Jiaqi Guo, Weiyi Tan and Bing Xu*

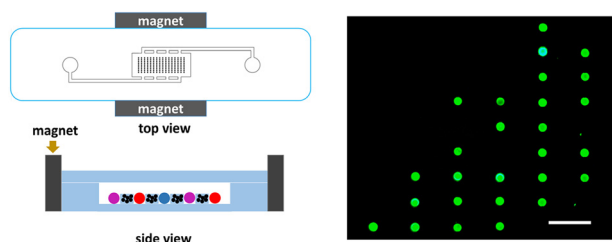
11218



Acellular dermal matrix hydrogels promote healing of radiation-induced skin injury in a rat model

Xin Liu, Tian Guo, Zhifeng Huang, Sen Chen, Li Chen, Chenyang Li, Tian Tian, Yerong Qian, Lifei Yang, Junxi Xiang, Qiufang Liu* and Peng Liu*

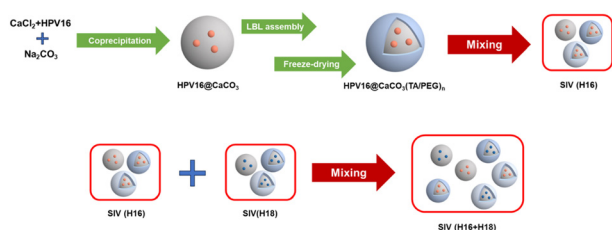
11230



Microfluidic synthesis and accurate immobilization of low-density QD-encoded magnetic microbeads for multiplex immunoassay

Zhou Sha, Tianyi Ling, Wenqi Yang, Haosu Xie, Chunnan Wang and Shuqing Sun*

11237



A single-injection vaccine providing protection against two HPV types

Jianchen Zhang, Yu Liu, Ying Guan* and Yongjun Zhang*

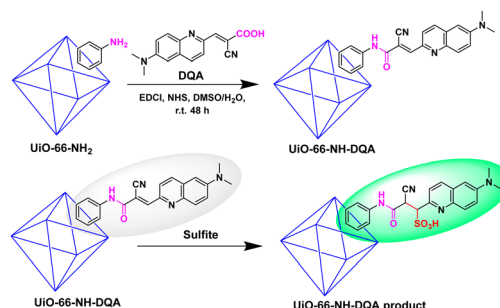


PAPERS

11251

Improving the sulfite-detection performance of a fluorescent probe via post-synthetic modification with a metal–organic framework

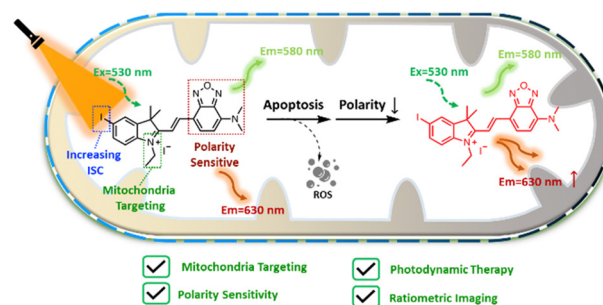
Jing-Yi Shi, Bin Wang, Xin-Yue Cui, Xiao-Wei Hu,*
Hai-Liang Zhu* and Yu-Shun Yang*



11259

A dual-functional photosensitizer for mitochondria-targeting photodynamic therapy and synchronous polarity monitoring

Liu Yang, Shenglong Gan, Jie Zhang, Yin Jiang,*
Qingxin Chen* and Hongyan Sun*



CORRECTION

11265

Correction: Blood-clotting model and simulation analysis of polyvinyl alcohol–chitosan composite hemostatic materials

Yifan Zhao, Junhong Hao,* Zexin Chen, Mengmeng Li, Jianxun Ren and Xiaobing Fu

