Journal of Materials Chemistry B

Materials for biology and medicine

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See Johannes Gurke *et al.*, pp. 9894–9904.
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Inside cover
See Mohiuddin Quadir *et al.*, pp. 9905–9920.
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REVIEWS

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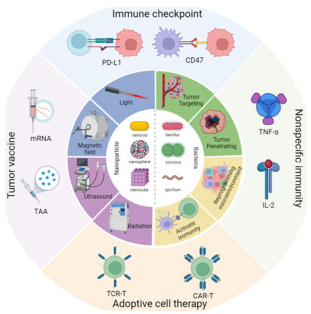
Nanomaterial combined engineered bacteria for intelligent tumor immunotherapy

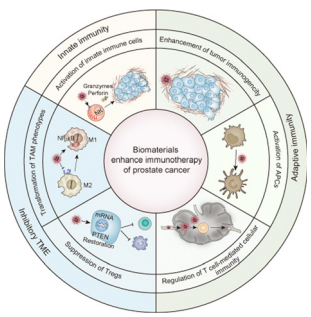
Shurong Qin, Guanzhong He and Jingjing Yang*



9821

Immunologically effective biomaterials enhance immunotherapy of prostate cancer

Siqi Liu, Hui Guo, Di Li* and Chunxi Wang*



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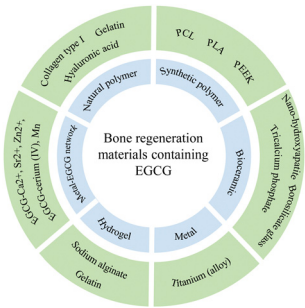
REVIEWS

9835

The recent progress of bone regeneration materials containing EGCG

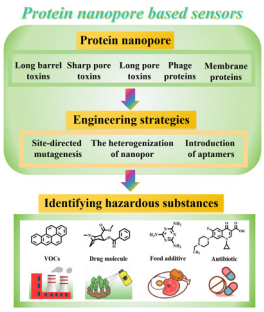
Yaoye Zhao, Guoding Cao, Zixin Wang, Desheng Liu, Liling Ren* and Dongyang Ma*



9845

Protein nanopore-based sensors for public health analyte detection

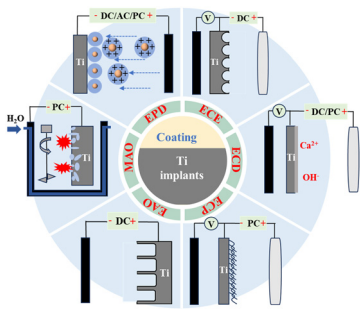
Yanhua Zhang, Chan Hu, Ronghui Liu,* Shujun He, Jie Yang, Wen Yao, Yi Li* and Xinrong Guo*



9863

Recent development and applications of electrodeposition biocoatings on medical titanium for bone repair

Jialong Yi, Ming Li, Jixiang Zhu, ZuHang Wang and Xiaoyan Li*



PERSPECTIVE

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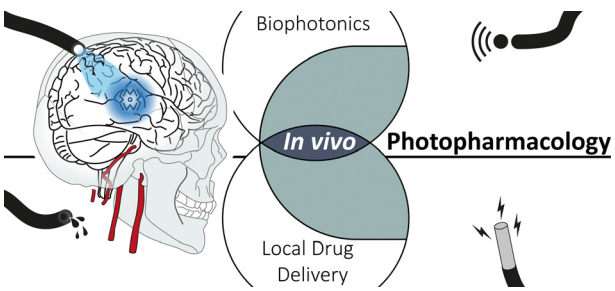
***In vivo* photopharmacological inhibition of hippocampal activity *via* multimodal probes – perspective and opening steps on experimental and computational challenges**

Johannes Gurke,* Alejandro Carnicer-Lombarte, Tobias E. Naegele, Anders K. Hansen and George G. Malliaras



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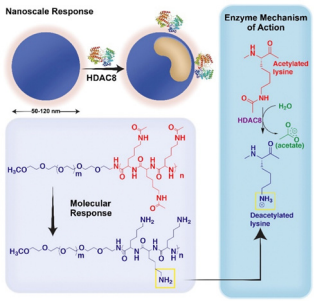

Design and evaluation of nanoscale materials with programmed responsivity towards epigenetic enzymes

Priyanka Ray, Abbas Sedigh, Matthew Confeld, Lina Alhalhooly, Kweeni Iduoku, Gerardo M. Casanola-Martin, Hai Pham-The, Bakhtiyor Rasulev, Yongki Choi, Zhongyu Yang, Sanku Mallik and Mohiuddin Quadir*

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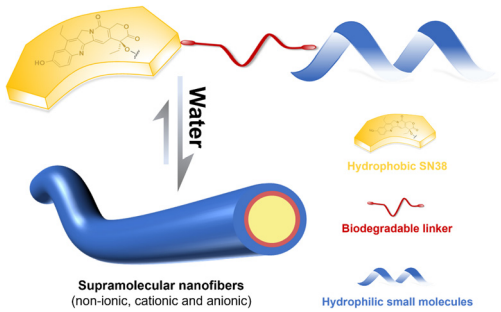

Spontaneous assembly of a class of small molecule prodrugs directed by SN38

Zhenhai Tang, Wenning Lan, Kaiying Wen, Wenting Li, Tao Wang,* Dongdong Zhou* and Hao Su*

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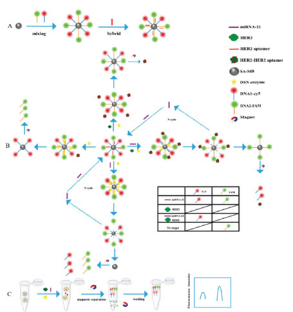

Simultaneous detection of breast cancer biomarkers HER2 and miRNA-21 based on duplex-specific nuclease signal amplification

Miao He, Zhiqiang Hou, Feifan Yin, Wenting Cheng, Yang Xiang* and Zhongyun Wang*

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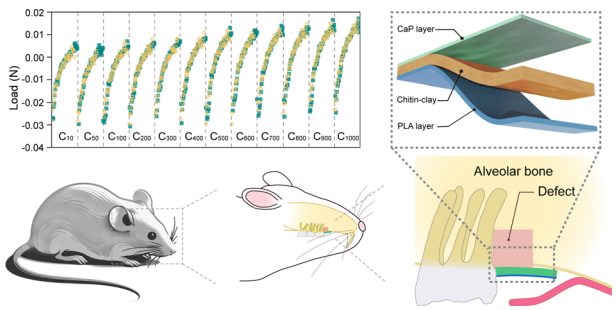

Bioinspired triple-layered membranes for periodontal guided bone regeneration applications

Yang Yang, Deng-Cheng Yang, Xian-Yan Long, Xiang Liu, Jing-Wen Lu, Zhou-Jing Zhang, Qian-Qian Shi, Yong Zhou* and Duo-Hong Zou*

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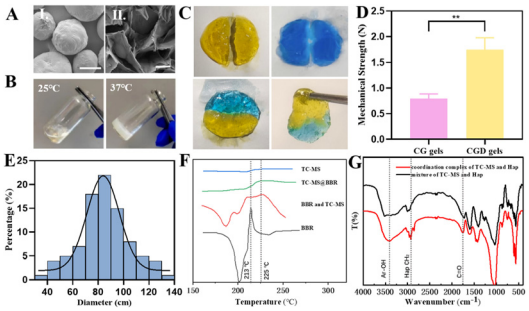
Dental cementum anchored microspheres embedded in a self-healing hydrogel for the antibacterial, anti-inflammation, osteogenic, and anti-osteoclastic management of periodontitis disease

Li Mi, Jiachen Li, Adric Ru Khiing Hii, Zhenhao Zuo, Ya Tang, Wei Zhou,* Zhenghong Wu* and Xiaole Qi*



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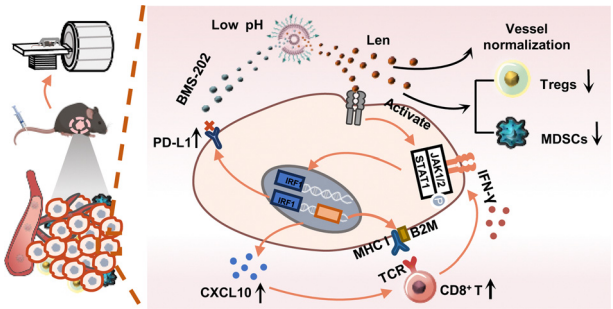
iRGD-mediated liposomal nanoplatforms for improving hepatocellular carcinoma targeted combination immunotherapy and monitoring tumor response *via* IVIM-MRI

Jiamin Li, Ruili Wei, Wang Yao, Xinrui Pang, Nianhua Wang, Shengsheng Lai, Xinhua Wei, Youyong Yuan,* Xinqing Jiang* and Ruimeng Yang*



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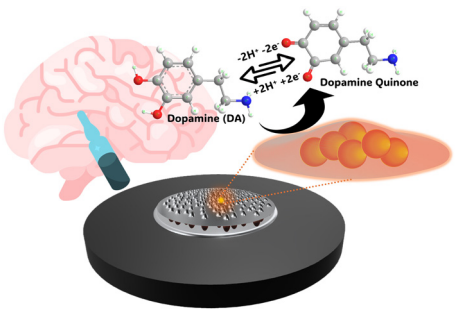
Facile stoichiometric interfacial surface bonded cerium oxide and graphene oxide heterostructure for efficient electrochemical non-enzymatic detection of dopamine

Hemarani Annadurai, Renganathan Vengudusamy, Shen-Ming Chen* and C. R. Kao*



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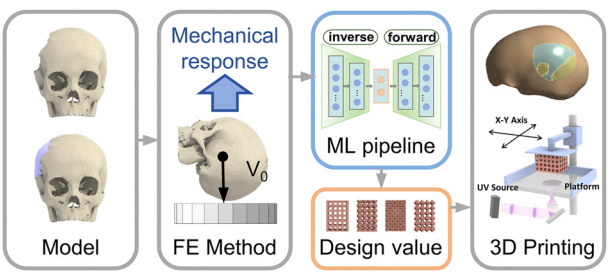
Inverse design of skull osteoinductive implants with multi-level pore structures through machine learning

Jixin Zhang, Yan Zhuang, Cong Feng, Xiangfeng Li,* Ke Chen,* Lin Han, Yilei Wang, Xiangdong Zhu, Mingli Yang, Guangfu Yin, Jiangli Lin* and Xingdong Zhang



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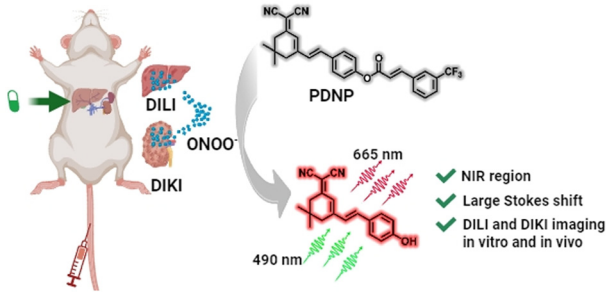

Imaging of $ONOO^-$ fluctuations during drug-induced liver/kidney injury *in vitro* and *in vivo via* a dicyanoisophorone-based NIR fluorescent probe with a large Stokes shift

Fei Kong, Hengqing Liu, Jie Huang and Jingcan Qin*

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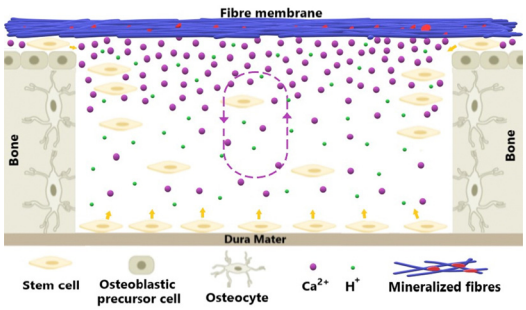

Simulation of the bone remodelling microenvironment by calcium compound-loaded hydrogel fibrous membranes for *in situ* bone regeneration

Yanmei Wu, Zhen Wu, Zhe Li and Youliang Hong*

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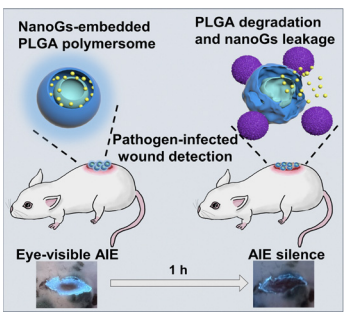

Aggregation-induced emission silence-mediated pathogen detection using a rapidly degradable nanographene-embedded polymersome

Chia-Yi Cheng, Eldhose V. Varghese, Wen-Jyun Wang, Chia-Yu Yao, Chia-Hsiang Chen* and Wei-Peng Li*

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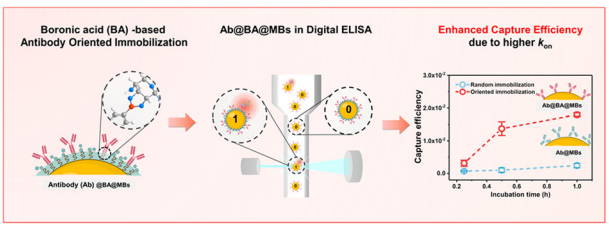

Revolutionizing the capture efficiency of ultrasensitive digital ELISA *via* an antibody oriented-immobilization strategy

Yutong Zhang, Xiaojun Kuang, Jingwei Yi, Tong Sun, Qingsheng Guo, Hongchen Gu and Hong Xu*

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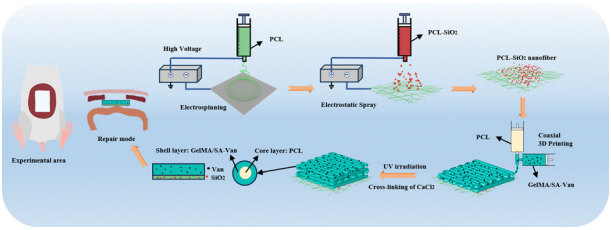
3D printing/electrospinning of a bilayered composite patch with antibacterial and antiadhesive properties for repairing abdominal wall defects

Qingxi Hu, Yu Zhang, Yongteng Song, Hekai Shi, Dongchao Yang, Haiguang Zhang* and Yan Gu*



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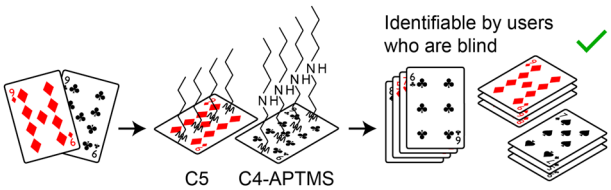
Self-assembled thin films as alternative surface textures in assistive aids with users who are blind

Zachary Swain, Maryanne Derkaloustian, Kayla A. Hepler, Abigail Nolin, Vidhika S. Damani, Pushpita Bhattacharyya, Tulaja Shrestha, Jared Medina, Laure V. Kayser and Charles B. Dhong*



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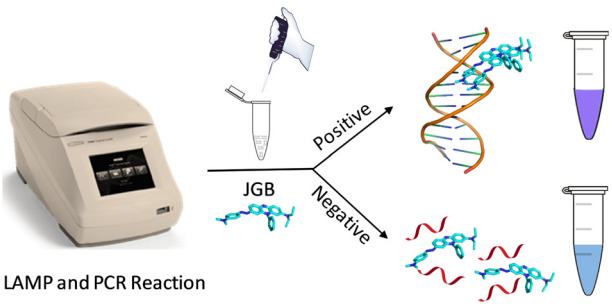
New insights into the photophysical properties and interaction mechanisms of Janus green blue dye with polyanions and its applications in colorimetric visualization of loop-mediated isothermal amplification and polymerase chain reaction

Arumugam Selva Sharma, Sung Min Ryou, Ji Hyeok Lee and Nae Yoon Lee*



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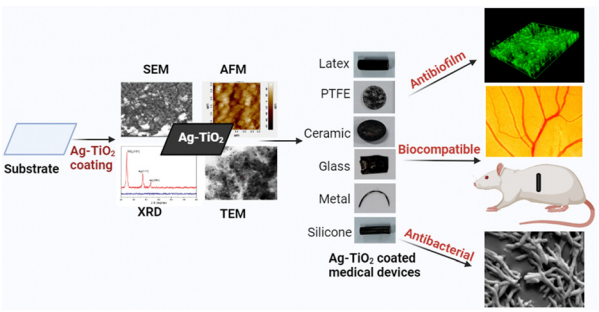
Surface modification of medical grade biomaterials by using a low-temperature-processed dual functional Ag–TiO_2 coating for preventing biofilm formation

Lipi Pradhan, Sobhan Hazra, Satya Veer Singh, Bajrang, Anjali Upadhyay, Bhola Nath Pal* and Sudip Mukherjee*



CORRECTION

10110

Correction: Surface modification of medical grade biomaterials by using a low-temperature-processed dual functional Ag–TiO_2 coating for preventing biofilm formation

Lipi Pradhan, Sobhan Hazra, Satya Veer Singh, Bajrang, Anjali Upadhyay, Bhola Nath Pal* and Sudip Mukherjee*