

# Journal of Materials Chemistry B

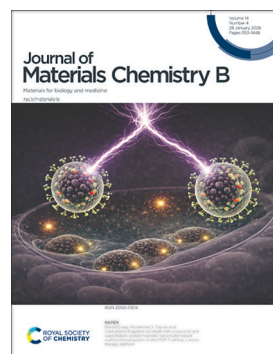
Materials for biology and medicine

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## IN THIS ISSUE

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### Cover

See Demet Erdag, Muhammet S. Toprak *et al.*, pp. 1224–1241. Image reproduced by permission of Muhammet S. Toprak from *J. Mater. Chem. B*, 2026, 14, 1224.



### Inside cover

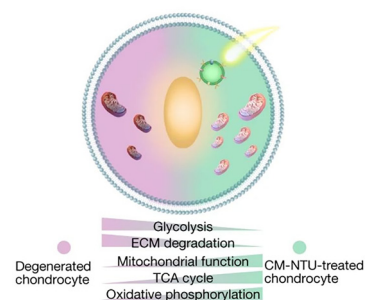
See Weihua Zhuang, Mao Chen *et al.*, pp. 1242–1257. Image reproduced by permission of Ming Chen from *J. Mater. Chem. B*, 2026, 14, 1242.

## HIGHLIGHT

1162

### Innovative integration of plant photosynthetic system for targeted restoration of NAD<sup>+</sup>/NADPH imbalance in acute kidney injury

Jinxin Zhang, Jihong Chen\* and Pengfei Zhang\*

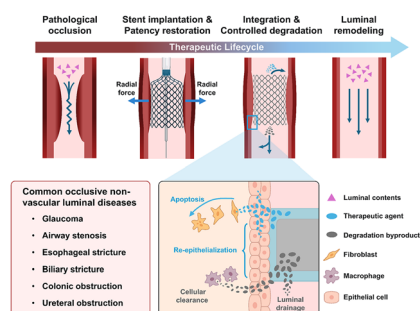


## REVIEWS

1167

### Recent advances in non-vascular stents for occlusive luminal disease treatment

Mian Chen, Jianfeng Yan and Yonghui Ding\*



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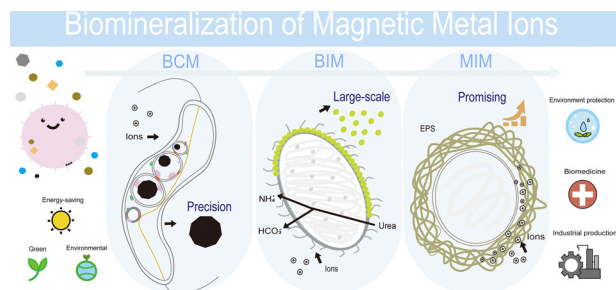


## REVIEWS

1192

### Green biomineralization of magnetic metal ions: comparative mechanisms and emerging applications

Bocheng Jin, Ruihan Liu, Xinran Wang, Kaitai Feng, Qirui Fu, Yunze Su, Guanchen He, Yutao Zhang, Jinzheng Zhao and Yang Wu\*

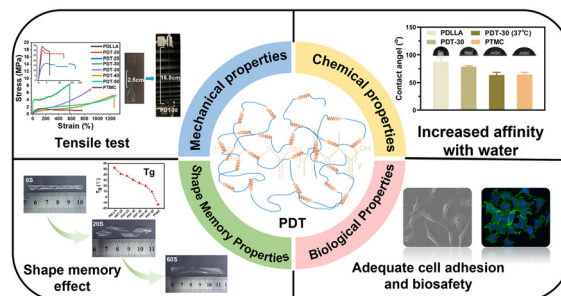


## COMMUNICATION

1208

### Biocompatible thermal shape-memory poly(lactide-co-trimethylene carbonate) elastomers for cell culture scaffold application

Shihao Zhang, Xu Li, Dong Zhou, Wei Luo, Ruiying He, João Rodrigues, Helena Tomás, Ruilong Sheng, Lv Wang,\* Yulin Li\* and Changsheng Liu\*

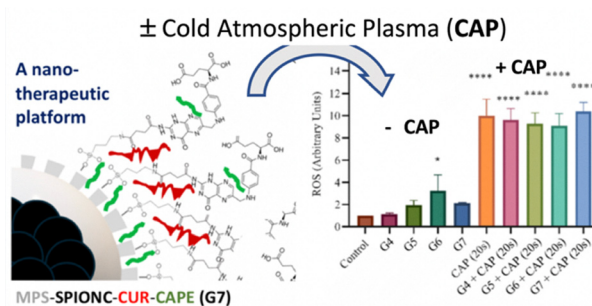


## PAPERS

1224

### Cold plasma triggered cell death with a curcumin and capecitabine loaded magnetic nanocluster-based multifunctional system on the MCF-7 cell line: a smart therapy platform

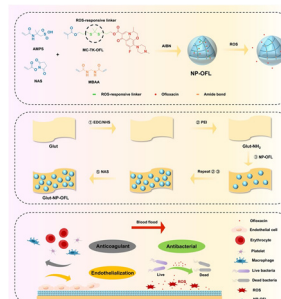
Demet Erdag,\* M. Dolores Garrido, Harun Basoglu, Idris Yazgan, Pedro Amorós, Leman Yalcintepe and Muhammet S. Toprak\*



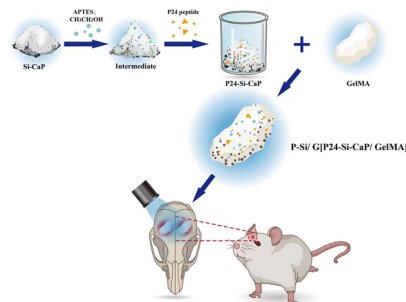
1242

### A ROS-responsive drug-conjugated heparin biomimetic nanogel for enhancing anticoagulant, antibacterial, and anti-calcification properties of bioprosthetic heart valves

Ming Chen, Shufen Li, Tianyi Qu, Zheng Chai, Ying Zhang, Yongchao Yao, Weihua Zhuang,\* Wenchuang (Walter) Hu and Mao Chen\*



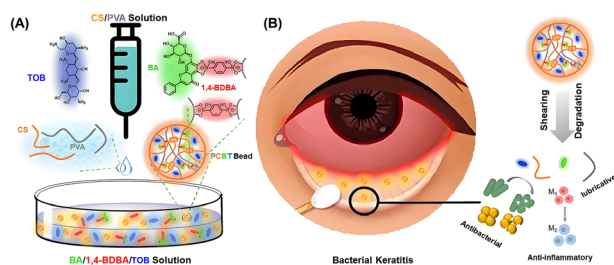
1258



### Injectable P24–Si–CaP/GelMA composite hydrogel for repairing bone defects

Zhengye Zhang, Huaying Wu, Songrui Zhang, Guanghua Chen, Zhibin Geng, Jingwei Zhang, Linying Ni and Xintao Wang\*

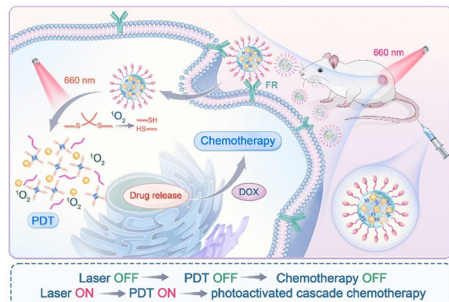
1272



### Treating bacterial keratitis during sleep through placing hydrogel beads with sustained tobramycin/baicalin delivery capability at the palpebra inferior

Shiyi Song, Zhiwei Ye, Dadong Jia, Mingshuang Li, Changying Yang, Mian Qin, Kaili Wu, Jiabing Ran\* and Liang Liang\*

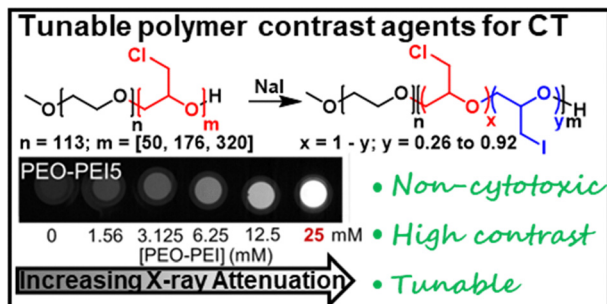
1286



### Porphyrin-based drug-delivery nanoparticles for photodynamic therapy and photoactivated cascade chemotherapy

Lihua Du, Kejing Zeng, Huaping Huang and Haozhe He\*

1296



### Non-cytotoxic, iodinated poly(ethylene oxide) (PEO) block-co-polymer contrast agents for computed tomography (CT) imaging

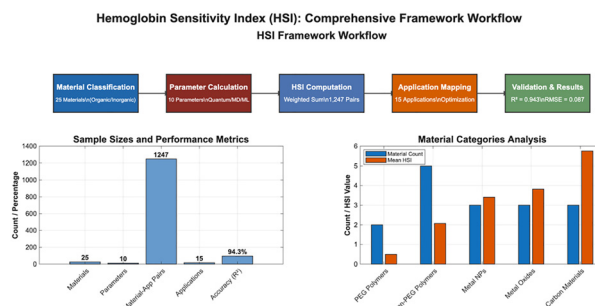
Mayson Whipple, Barbara Christian, Kendell M. Pawelec, Netsanet Waal, D. Adam Lauver and Robert C. Ferrier Jr.\*



1307

## A predictive mathematical framework for hemoglobin–material interactions: development of a hemoglobin sensitivity index (HSI) for next-generation biomedical applications

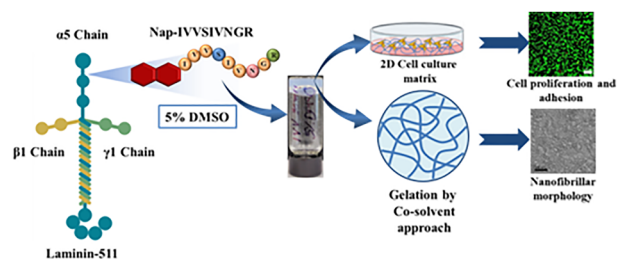
Navid Rabiee\* and Mohammad Edrisi



1325

## Designing highly tunable laminin-inspired bioactive peptide hydrogel-based biomaterials for directing cellular response

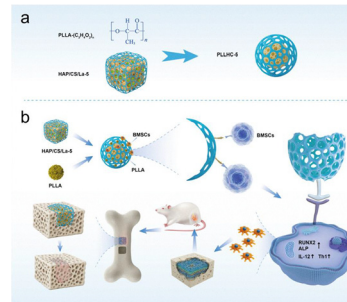
Ranit Bhandary, Sourav Sen, Sweta Mohanty and Sangita Roy\*



1342

## Regulation of bone regeneration by chiral modified hydroxyapatite/chitosan scaffolds

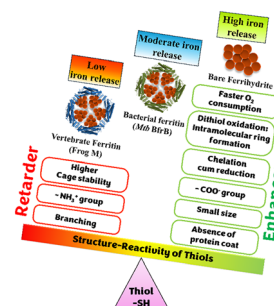
Jianrong Wang,\* Xiaoying Ma, Ping Huang, Xue Zhang, Yong Zhang, Hongfang Zhao, Yan Jiao and Baodui Wang



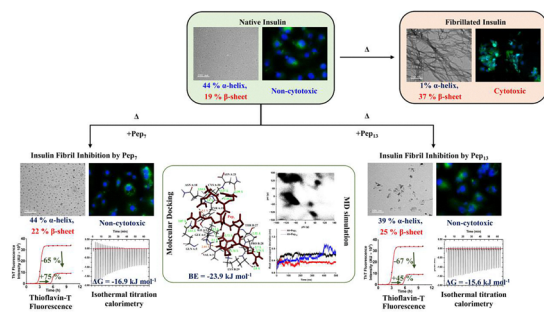
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## The iron–thiol–oxygen nexus for iron flux from bare and ferritin-caged minerals and safeguarding DNA: the impact of the thiol structure and protein coat

Tanaya Subudhi, Narmada Behera and Rabindra K. Behera\*



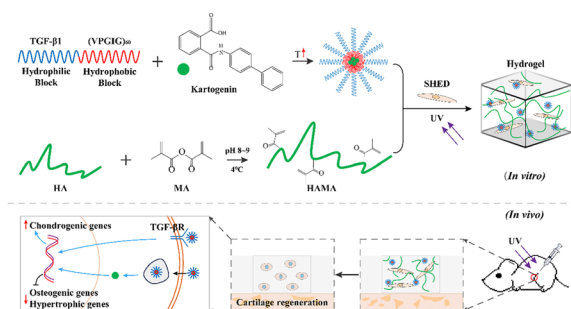
1371



### Surfactin-inspired arginine- and lysine-rich peptides inhibit human insulin aggregation and prevent amyloid-induced cytotoxicity

Chinmaya Panda, Sachin Kumar, Sharad Gupta and Lalit M Pandey\*

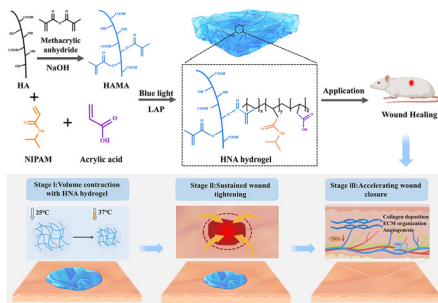
1385



### TGF- $\beta$ 1 fused to elastin-like polypeptides nanoparticles with kartogenin loading for mesenchymal stem cell directed cartilage differentiation and promoting *in vivo* repair

Yunhui Fu, Yuxi Li, Chenlu Wu, Yiyang Chen, Chen Zhang, Xikui Tong, Yangmin Wang, Yue Shen, Wenyun Zheng\* and Xingyuan Ma\*

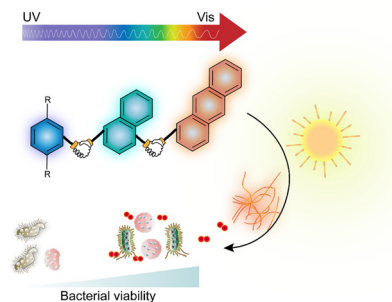
1397



### Contraction-actuated thermo-responsive hydrogels accelerate wound healing *via* mechanosensitive proliferation

Yangyang Liu, Huibo Wang, Changliang Wu, Xingang Peng, Junhao Zhang, Shulin Liang, Ze Li,\* Xiuwen Wu,\* Jianan Ren\* and Peige Wang\*

1409



### Visible-light-responsive supramolecular enzyme mimics for combating antimicrobial resistance

Rahul Mahashaya, Rishab Pandey, Alisha Kamra, Ashish Mazumdar, Subinoy Rana\* and P. Rajamalli\*

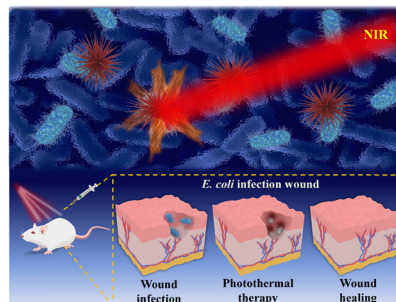


## PAPERS

1418

### Urchin-inspired spiky microparticles for enhanced mild photothermal antibacterial therapy and wound healing

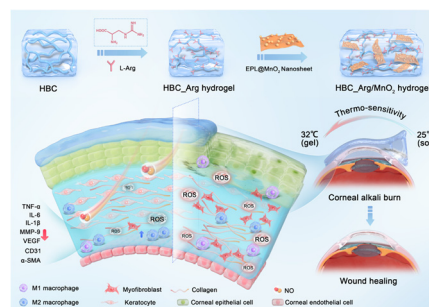
Shuai He, Denver P. Linklater, Zheyu Li, Suyao Yin, Zechang Li, Shuai Xiang, Zenglian Zong, Liping Wen, Saulius Juodkazis, Elena P. Ivanova, Lei Jiang and Kai Sun\*



1430

### A thermosensitive chitosan hydrogel enabled MnO<sub>2</sub> nanozyme delivery with NO release for enhanced corneal repair

Peifang Xu, Yiming Sun, Jun Huang, Yishu Zhang, Tong Zhou, Jiawei Wang, Pengjie Chen, Mingyu Xu, Yifan Zhou, Shan Yu\* and Juan Ye\*



## CORRECTION

1445

### Correction: Intelligent catalase-coated MnO<sub>2</sub> nanoparticles with programmed oxygen supply and glutathione depletion for enhanced photodynamic therapy

Weijuan Jia, Aoxue Zhang, Haiwei Hou, Yazhong Bu, Di Liu,\* Ching-Hsuan Tung\* and Baoji Du\*

## EXPRESSION OF CONCERN

1446

### Expression of concern: 3D-printed magnetic Fe<sub>3</sub>O<sub>4</sub>/MBG/PCL composite scaffolds with multifunctionality of bone regeneration, local anticancer drug delivery and hyperthermia

Jianhua Zhang, Shichang Zhao, Min Zhu, Yufang Zhu,\* Yadong Zhang, Zhongtang Liu and Changqing Zhang\*

