

# Journal of Materials Chemistry B

Materials for biology and medicine

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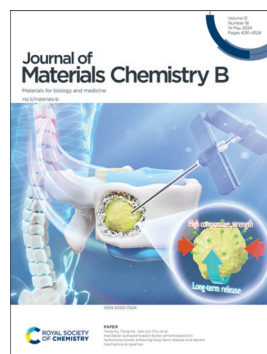
## IN THIS ISSUE

ISSN 2050-750X CODEN JMCBDV 12(18) 4281–4524 (2024)



### Cover

See Ryan F. Donnelly *et al.*, pp. 4375–4388.  
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### Inside cover

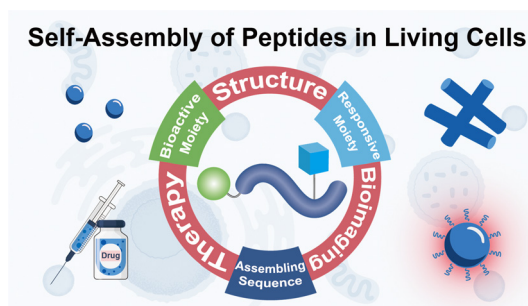
See Yang Xu, Fang He, Jian-jun Chu *et al.*, pp. 4389–4397.  
Image reproduced by permission of Yang Xu from *J. Mater. Chem. B*, 2024, 12, 4389.

## REVIEWS

4289

### Self-assembly of peptides in living cells for disease theranostics

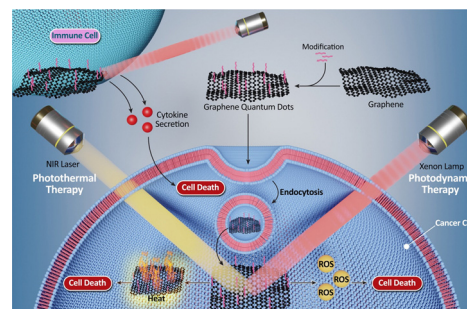
Xiaowei Mo, Zeyu Zhang, Jinyan Song, Yushi Wang and Zhilin Yu\*



4307

### Innovative approaches for cancer treatment: graphene quantum dots for photodynamic and photothermal therapies

Atefeh Zarepour, Arezoo Khosravi, Necla Yücel Ayten, Pınar Çakır Hatır, Siavash Iravani\* and Ali Zarrabi\*



# RSC Applied Interfaces

GOLD  
OPEN  
ACCESS

## Interfacial and surface research with an applied focus

### Interdisciplinary and open access



[rsc.li/RSCApplInter](https://rsc.li/RSCApplInter)

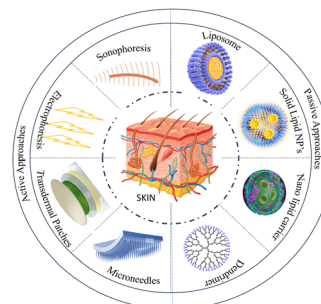
Fundamental questions  
Elemental answers

## REVIEWS

4335

**Revolutionizing transdermal drug delivery: unveiling the potential of cubosomes and ethosomes**

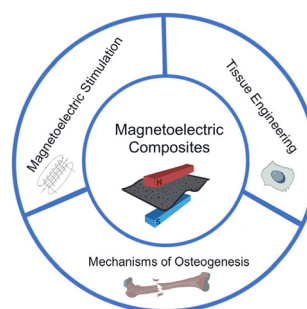
Preetha Balakrishnan and Sreerag Gopi\*



4361

**Advances in magnetoelectric composites for promoting bone regeneration: a review**

Chengyu Li, Andi Zhu, Liqing Yang, Xinyi Wang and Zehong Guo\*

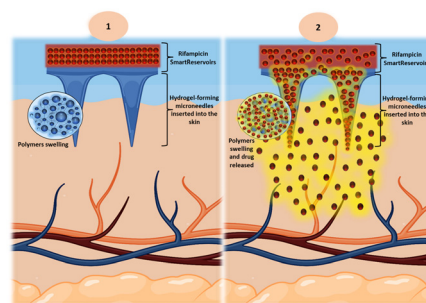


## PAPERS

4375

**Novel SmartReservoirs for hydrogel-forming microneedles to improve the transdermal delivery of rifampicin**

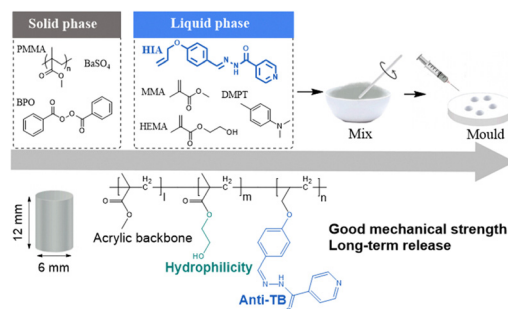
Abraham M. Abraham, Qonita Kurnia Anjani, Masoud Adhami, Aaron R. J. Hutton, Eneko Larrañeta and Ryan F. Donnelly\*



4389

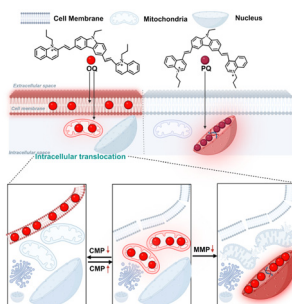
**Injectable isoniazid-loaded bone cement based on hydrazone bonds achieving long-term release and decent mechanical properties**

Yang Xu,\* Hao Lin, Zhe Gao, Rui Guo, Yu-chen Kan, Lu-yang Han, Wen-han Bu, Zhi Wang, Ayakuzi Asilebieke, Long-xu Han, Chuang Li, Fang He\* and Jian-jun Chu\*





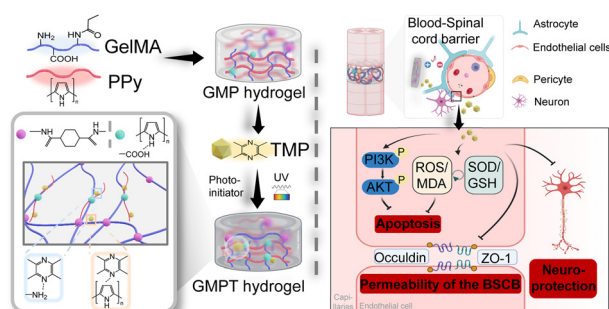
4398



### A translocation fluorescent probe for analyzing cellular physiological parameters in neurological disease models

Zi-Lu Li, Ai-Xin Ma, Jing-Qi Liu, Kun Wang, Bao-Cun Zhu,\* Dai-Wen Pang\* and De-Ming Kong\*

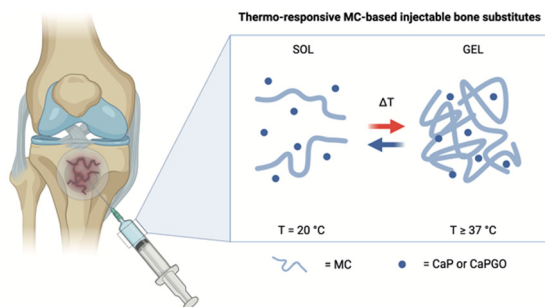
4409



### Tetramethylpyrazine-loaded electroconductive hydrogels promote tissue repair after spinal cord injury by protecting the blood–spinal cord barrier and neurons

Bowen Deng, Shengyuan Jiang, Gang Liu, Xiaoye Li, Yi Zhao, Xiao Fan, Jingpei Ren, Chengyun Ning, Lin Xu, Linhong Ji\* and Xiaohong Mu\*

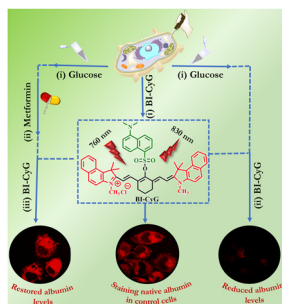
4427



### Injectable *in situ* gelling methylcellulose-based hydrogels for bone tissue regeneration

Lorenzo Bonetti, Silvia Borsacchi,\* Alessandra Soriente, Alberto Boccali, Lucia Calucci, Maria Grazia Raucci and Lina Altomare\*

4441



### NIR-I emissive cyanine derived molecular probe for selective monitoring of hepatic albumin levels during hyperglycemia

Bidisha Biswas, Surbhi Dogra, Aniket Sen, N. Arul Murugan, Pooja Dhinra, Kajal Jaswal, Prosenjit Mondal\* and Subrata Ghosh\*

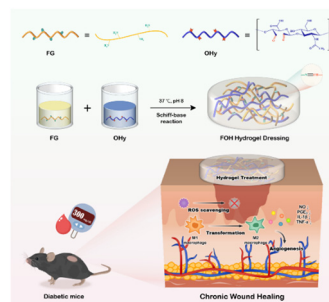


## PAPERS

4451

### Multifunctional hydrogel dressing based on fish gelatin/oxidized hyaluronate for promoting diabetic wound healing

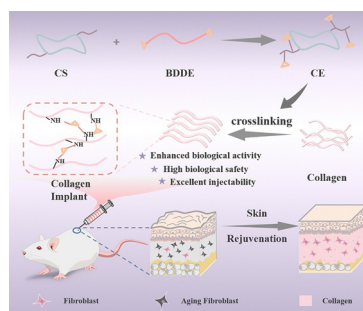
Dong-Joo Park, Se-Chang Kim, Jin-Bok Jang, Bonggi Lee, Seungjun Lee, Bomi Ryu, Jae-Young Je, Won Sun Park and Won-Kyo Jung\*



4467

### A highly biocompatible CE-crosslinked collagen implant with exceptional anti-calcification and collagen regeneration capabilities for aging skin rejuvenation

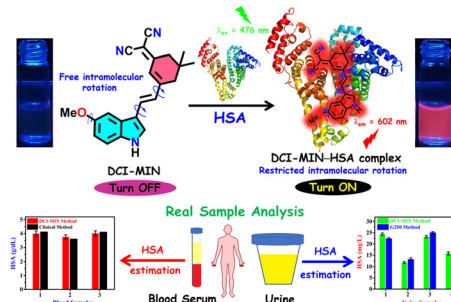
Qi Wang, Huiyu Yan, Linyan Yao, Wenhua Li and Jianxi Xiao\*



4478

### A microenvironment-sensitive red emissive probe with a large Stokes shift for specific recognition and quantification of serum albumin in complex biofluids and live cells

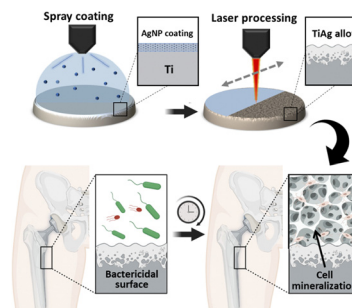
Mihir Sasmal, Abu Saleh Musha Islam, Dolan Moni, Atul Katarkar and Mohammad Ali\*



4489

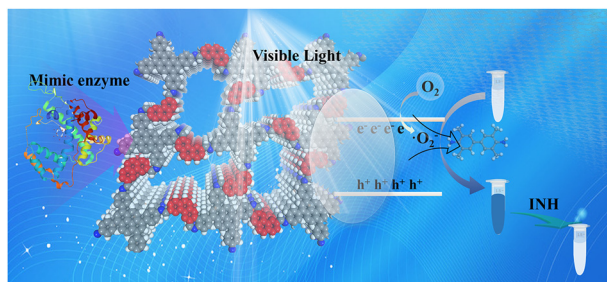
### Laser-assisted surface alloying of titanium with silver to enhance antibacterial and bone-cell mineralization properties of orthopedic implants

Sotoudeh Sedaghat, Akshay Krishnakumar, Vidhya Selvamani, James P. Barnard, Sina Nejati, Haiyan Wang, David A. Detwiler, Mohamed N. Seleem and Rahim Rahimi\*



## PAPERS

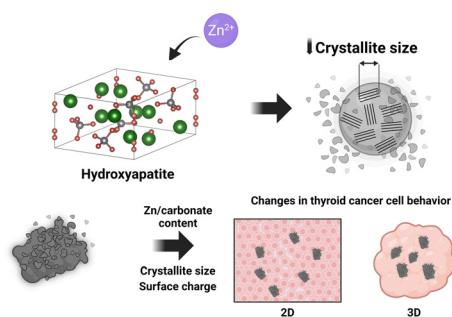
4502



**Phenanthroline-functionalized donor–acceptor covalent organic frameworks as photo-responsive nanozymes for visual colorimetric detection of isoniazid**

Guorong Li,\* Yixin Yang, Wenjie Chen, Zhiping Song, Jiale Shi, Bingqing Wang, Xiaoyang Pan\* and Zian Lin\*

4509



**The interplay between crystallinity and the levels of Zn and carbonate in synthetic microcalcifications directs thyroid cell malignancy**

Lotem Gotnayer Lilian, Yarden Nahmias, Gabriel Yazbek Grobman, Lonia Friedlander, Dina Aranovich, Uri Yoel and Netta Vidavsky\*

## CORRECTION

4521

**Correction: Development of bioactive and ultrasound-responsive microdroplets for preventing ovariectomy (OVX)-induced osteoporosis**

Yi Zhang, Yi Dang, Maodi Huang, Yaping Ma, Dingmei Zhang and Xin Wang\*

