

# Journal of Materials Chemistry B

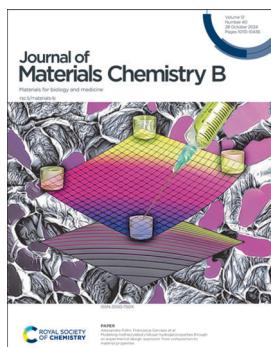
Materials for biology and medicine

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## IN THIS ISSUE

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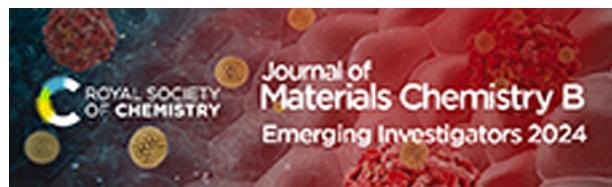
### Cover

See Alessandro Polini,  
Francesca Gervaso *et al.*,  
pp. 10221–10240.  
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*J. Mater. Chem. B*,  
2024, 12, 10221.

## PROFILE

10123

Contributors to the *Journal of Materials Chemistry B*  
Emerging Investigators 2024 collection

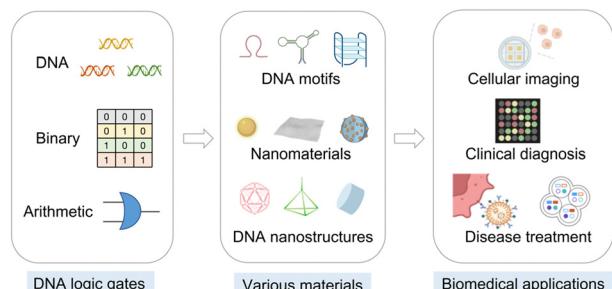


## REVIEWS

10134

**Advancements in DNA computing: exploring DNA logic systems and their biomedical applications**

Yuewei Zhao, Xuelian Li, Yan Zhou, Xiaoting Tian,  
Yayou Miao, Jiayi Wang,\* Lin Huang\* and Fanyu Meng\*



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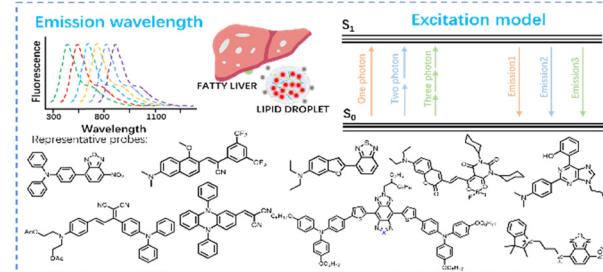


## REVIEWS

10149

**Recent advances in fluorescent probes for fatty liver imaging by detecting lipid droplets**

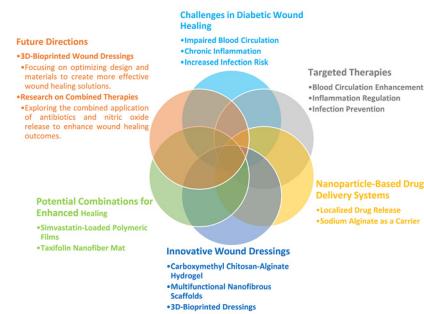
Long He, Hang Li, Yao Tang, Tian-Bing Ren\* and Lin Yuan

**Lipid droplet fluorescent probes for assessing fatty liver**

10163

**Recent advances in sodium alginate-based dressings for targeted drug delivery in the context of diabetic wound healing**

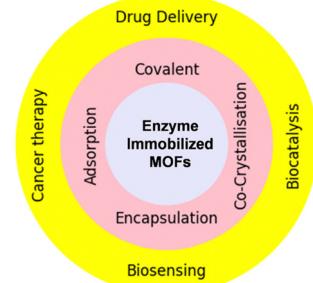
Mohammad Ebrahim Astaneh, Alireza Hashemzadeh and Narges Fereydouni\*



10198

**Exploring enzyme-immobilized MOFs and their application potential: biosensing, biocatalysis, targeted drug delivery and cancer therapy**

Om Prakash,\* Deepika Verma and Poonam C. Singh

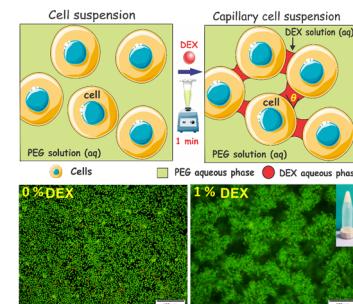


## COMMUNICATION

10215

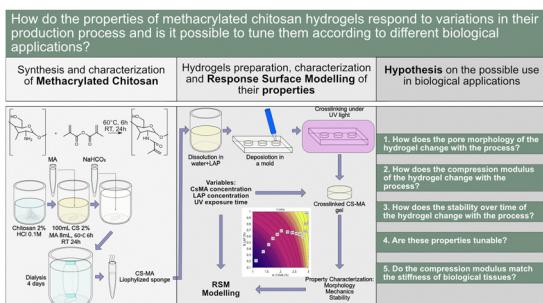
**3D structured capillary cell suspensions aided by aqueous two-phase systems**

Amro K. F. Dyab and Vesselin N. Paunov\*



## PAPERS

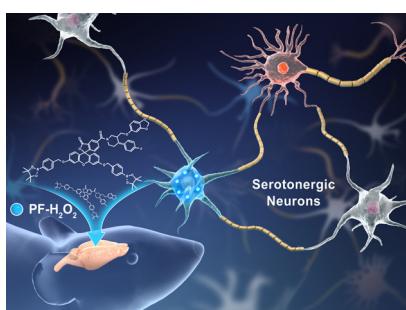
10221



## Modelling methacrylated chitosan hydrogel properties through an experimental design approach: from composition to material properties

Alessio Bucciarelli, Nora Selicato, Chiara Coricciati, Alberto Rainer, Agostina Lina Capodilupo, Giuseppe Gigli, Lorenzo Moroni, Alessandro Polini\* and Francesca Gervaso\*

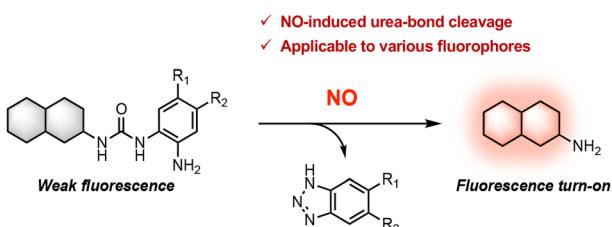
10241



## A versatile fluorescent probe for hydrogen peroxide in serotonergic neurons of living brains of mice with depression

Feida Che, Xiaoming Zhao, Qi Ding, Xiwei Li, Wen Zhang, Ping Li,\* Xin Wang\* and Bo Tang

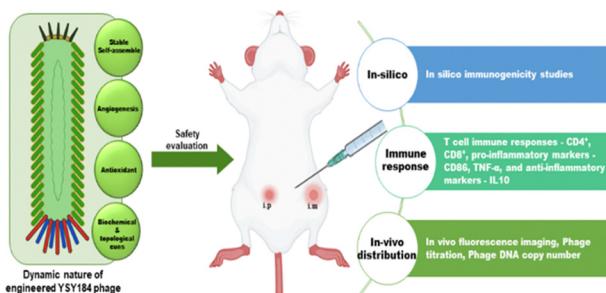
10248



## Development of a urea-bond cleavage reaction induced by nitric oxide for fluorescence imaging

Yuqing Zhang, Shushu Wang, Lina Zhang and Tao Peng\*

10258



## In vivo safety evaluation and tracing of arginylglycylaspartic acid-engineered phage nanofiber in murine model

Kshitiz Raj Shrestha, Sehoon Kim, Anna Jo, Murali Ragothaman and So Young Yoo\*

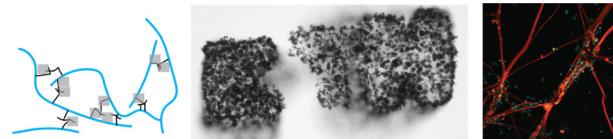


## PAPERS

10272

## Photopatterning of conductive hydrogels which exhibit tissue-like properties

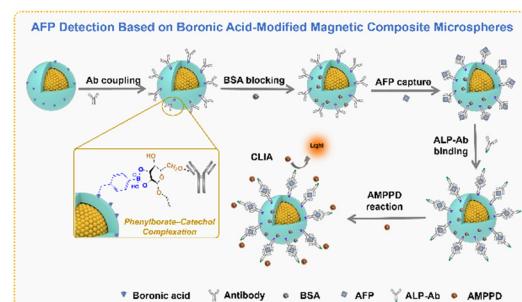
Léo Siflinger, Lina De Windt, Stéphane Bernhard, Giulia Amos, Blandine Clément, Jens Duru, Mark W. Tibbitt and Christina M. Tringides\*



10285

## A chemiluminescence immunosensor for biomarker detection based on boronic acid-modified magnetic composite microspheres

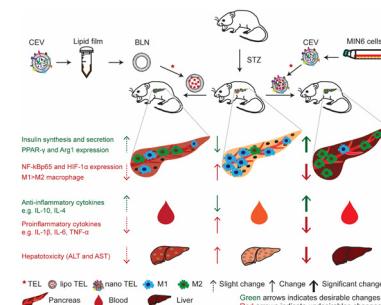
Xiuli Wang, Leyi He, Yaxia Li, Jia Guo and Changchun Wang\*



10294

## Encapsulation of telmisartan inside insulinoma-cell-derived extracellular vesicles outperformed biomimetic nanovesicles in modulating the pancreatic inflammatory microenvironment

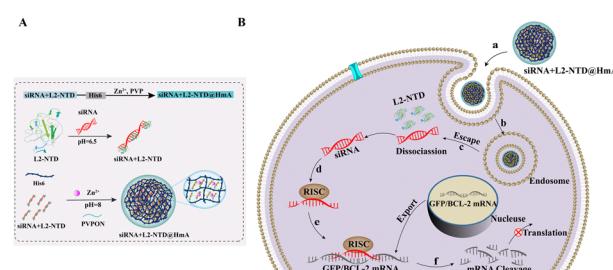
Anjali Singh, Subrata Kumar Pore and Jayanta Bhattacharyya\*



10309

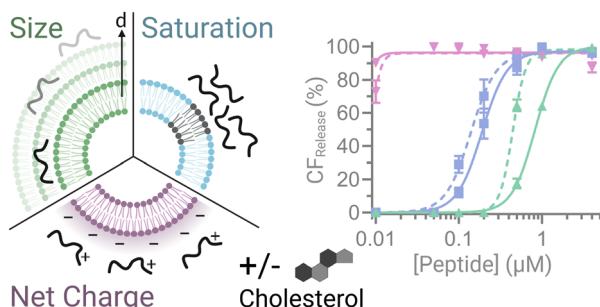
## RNA-binding peptide and endosomal escape-assisting peptide (L2) improved siRNA delivery by the hexahistidine–metal assembly

Yan Zhang, Li-Miao Qin, Meng-Fan Feng, Xianghui Yu and Yuqing Wu\*



## PAPERS

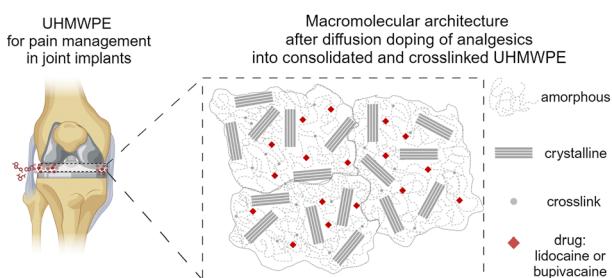
10320



### Influence of lipid vesicle properties on the function of conjugation dependent membrane active peptides

Alexandra Iversen, Johanna Utterström, Lalit Pramod Khare and Daniel Aili\*

10332



### Diffusion doping of analgesics into UHMWPE for prophylactic pain management

Nicoletta Inverardi, Sashank Lekkala, Maria F. Serafim, Amita Sekar, Keith K. Wannomae, Brad Micheli, Hany Bedair, Orhun K. Muratoglu and Ebru Oral\*

10346



### Flexible and antibacterial conductive hydrogels based on silk fibroin/polyaniline/AgNPs for motion sensing and wound healing promotion under electrical stimulation

Ruiqi Liu, Siwei Bi, Linna Zhang, Xiaoyi Li, Kang Dai, Haibo Wang, Zhenyu Zhang\* and Jun Gu\*

10357



### The heterogeneity of physiological activity for chiral carbon dots derived from L/D/DL-arginine

Fengyuan Liu, Jiashan Xia, Chun Tao, Changmei Chen, Xiangshu Cheng, Rongchun Yi, Lulu Wang, Yue Wang\* and Tao Deng\*

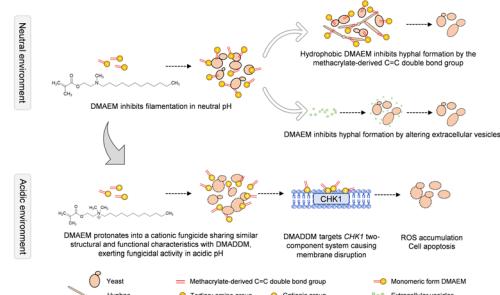


## PAPERS

10367

**A novel pH-responsive monomer inhibits *Candida albicans* via a dual antifungal mode of action**

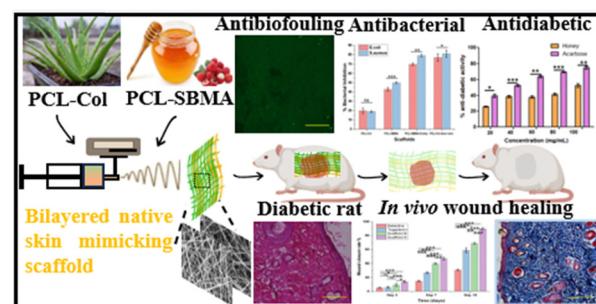
Hao Li, Yangyang Shi, Hui Chen, Jingou Liang, Shiyong Zhang, Bolei Li, Jing Chen, Mingyun Li, Xian Peng, Xuedong Zhou, Biao Ren\* and Lei Cheng\*



10383

**Exploring the potential of an *Aloe vera* and honey extract loaded bi-layered nanofibrous scaffold of PCL-Col and PCL-SBMA mimicking the skin architecture for the treatment of diabetic wounds**

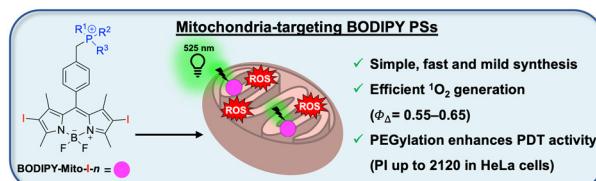
Megha Dhiman, Souvik Ghosh, Thakur Gurjeet Singh, Samrat Chauhan, Partha Roy and Debrupa Lahiri\*



10409

**Potent BODIPY-based photosensitisers for selective mitochondrial dysfunction and effective photodynamic therapy**

Edward R. H. Walter, Peter Kam-Keung Leung, Lawrence Cho-Cheung Lee, Kenneth Kam-Wing Lo\* and Nicholas J. Long\*



10416

**Development and evaluation of 3D composite scaffolds with piezoelectricity and biofactor synergy for enhanced articular cartilage regeneration**

Bowen Xie, Hebin Ma, Fengyuan Yang, Hongguang Chen, Ya'nan Guo, Hongxing Zhang, Tengfei Li, Xiaogang Huang, Yantao Zhao,\* Xiaojie Li\* and Junjie Du\*



## CORRECTION

10434

**Correction: Selenium nanoparticle-functionalized injectable chitosan/collagen hydrogels as a novel therapeutic strategy to enhance stem cell osteoblastic differentiation for bone regeneration**

Khaled Alajmi, Matthew Hartford, Nakka Sharmila Roy, Anamitra Bhattacharya, Santanu Kaity, Brenton L. Cavanagh, Subhadeep Roy,\* Ciara M. Murphy\* and Kulwinder Kaur\*

