

# Journal of Materials Chemistry B

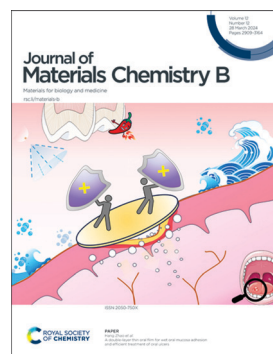
Materials for biology and medicine

[rsc.li/materials-b](https://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(12) 2909–3164 (2024)



### Cover

See Hang Zhao *et al.*, pp. 3015–3021.  
Image reproduced by permission of Hang Zhao from *J. Mater. Chem. B*, 2024, 12, 3015.



### Inside cover

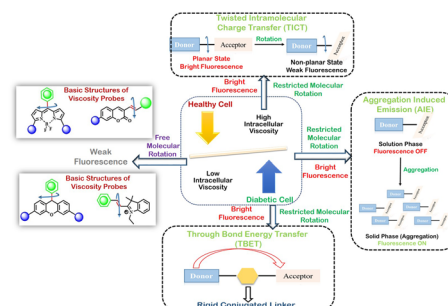
See Artūras Polita *et al.*, pp. 3022–3030.  
Image reproduced by permission of Artūras Polita from *J. Mater. Chem. B*, 2024, 12, 3022.

## REVIEWS

2917

### Mechanistic analysis of viscosity-sensitive fluorescent probes for applications in diabetes detection

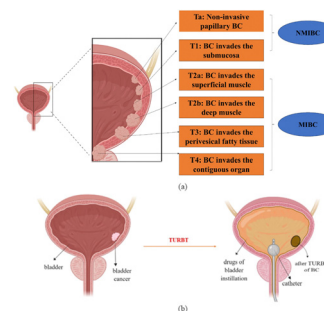
M. M. Sreejaya, Vineeth M Pillai, Ayesha A, Maanas Baby, Manoranjan Bera and Moumita Gangopadhyay\*



2938

### Hydrogel: a new material for intravesical drug delivery after bladder cancer surgery

Yalong Wu, Xinquan Gu, Xiaoxi Chen, Yongliang Cui,\* Wei Jiang\* and Bin Liu\*



# RSC Applied Polymers

The application of polymers,  
both natural and synthetic

Interdisciplinary and open access



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

Fundamental questions  
Elemental answers

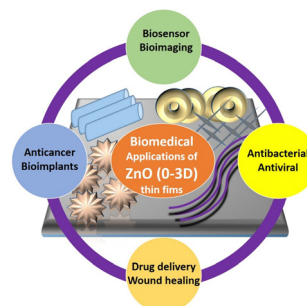


## REVIEWS

2950

**ZnO based 0–3D diverse nano-architectures, films and coatings for biomedical applications**

Suresh Babu Naidu Krishna, Jaroon Jakmunee, Yogendra Kumar Mishra and Jai Prakash\*

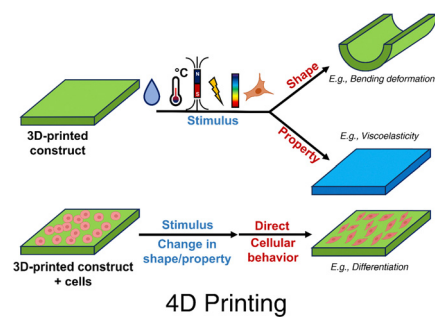


## PERSPECTIVE

2985

**4D printing for biomedical applications**

Arkodip Mandal and Kaushik Chatterjee\*

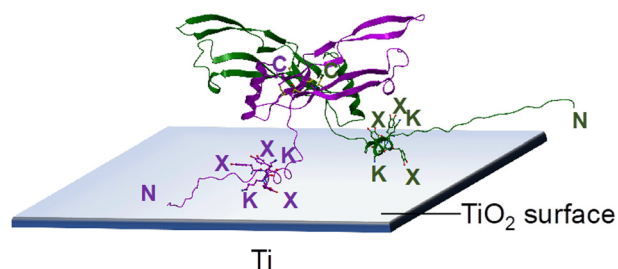


## COMMUNICATION

3006

**An osteoinductive surface by adhesive bone morphogenetic protein-2 prepared using the bioorthogonal approach for tight binding of titanium with bone**

Xueli Ren, Hironori Tsuji, Takahiko Uchino, Izumi Kono, Takashi Isoshima, Akimitsu Okamoto, Noriyuki Nagaoka, Toshifumi Ozaki, Akihiro Matsukawa, Hideyuki Miyatake\* and Yoshihiro Ito\*

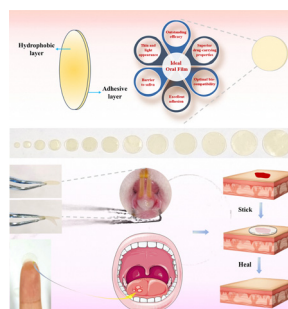


## PAPERS

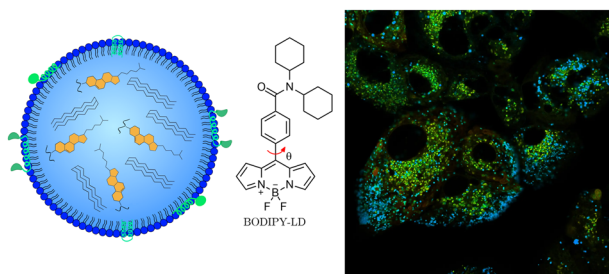
3015

**A double-layer thin oral film for wet oral mucosa adhesion and efficient treatment of oral ulcers**

Yujie Yan, Tiannan Liu, Xin Tian, Jiang Liu, Qianming Chen and Hang Zhao\*



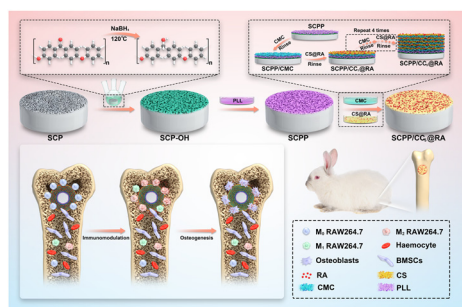
3022



### Bimodal effects on lipid droplets induced in cancer and non-cancer cells by chemotherapy drugs as revealed with a green-emitting BODIPY fluorescent probe

Artūras Polita,\* Rokas Žvirblis, Jelena Dodonova-Vaitkūnienė, Arun Prabha Shivabalan, Karolina Maleckaitė and Gintaras Valinčius

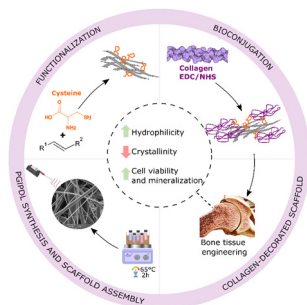
3031



### Construction of a layer-by-layer self-assembled rosemarinic acid delivery system on the surface of CFRPEEK implants for enhanced anti-inflammatory and osseointegration activities

Shanshan Zhao, Xingyu Zhou, Junbo Dang, Yilong Wang, Junhui Jiang, Tianhao Zhao, Dahui Sun, Chen Chen, Xin Dai, Yan Liu and Mei Zhang\*

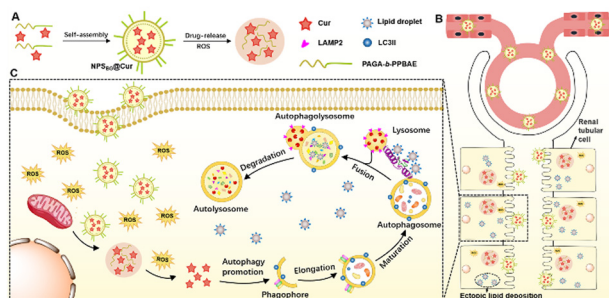
3047



### Collagen-decorated electrospun scaffolds of unsaturated copolyesters for bone tissue regeneration

Heloisa Bremm Madalosso, Camila Guindani, Bianca Chieragato Maniglia, Pedro Henrique Hermes de Araújo and Claudia Sayer\*

3063



### ROS-responsive curcumin-encapsulated nanoparticles for AKI therapy via promoting lipid degradation in renal tubules

Honglei Guo, Tianyu Lan,\* Xin Lu, Kedui Geng, Xiangchun Shen, Huijuan Mao\* and Qianqian Guo\*



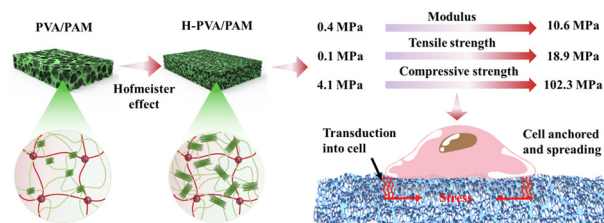


## PAPERS

3079

### Strong, tough, and elastic poly(vinyl alcohol)/polyacrylamide DN hydrogels based on the Hofmeister effect for articular cartilage replacement

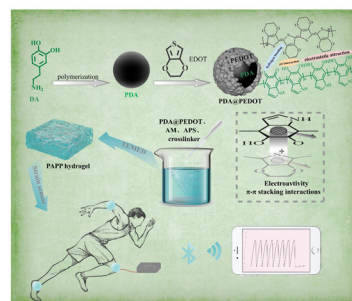
Cheng Yin, Zhiwu Huang, Yunge Zhang, Kaijing Ren, Songtao Liu, Honglin Luo, Quanchao Zhang\* and Yizao Wan\*



3092

### Mussel-inspired PDA@PEDOT nanocomposite hydrogel with excellent mechanical strength, self-adhesive, and self-healing properties for a flexible strain sensor

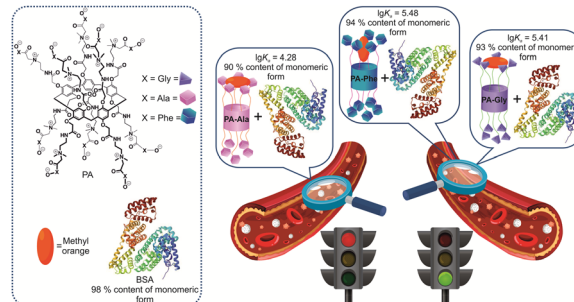
Xiaoyi Li, Xueshan Zhao, Ruiqi Liu, Hui Wang, Shuang Wang, Bing Fan, Chenggong Hu\* and Haibo Wang



3103

### Pillar[5]arene/albumin biosupramolecular systems for simultaneous native protein preservation and encapsulation of a water-soluble substrate

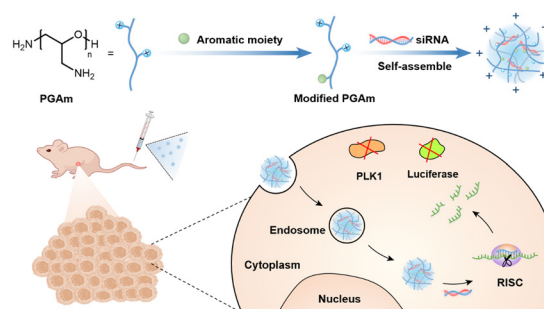
Vildan Sultanaev,\* Luidmila Yakimova,\* Anastasia Nazarova, Igor Sedov, Olga Mostovaya, Timur Mukhametzyanov, Damir Davletshin, Daria Takuntseva, Elvina Gilyazova, Emil Bulatov and Ivan Stoikov\*



3115

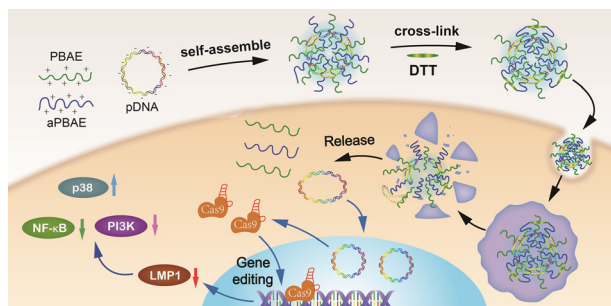
### Novel aromatic moieties-modified poly(glycidyl amine)s with potent siRNA delivery and cancer treatment effect

Qi Shuai, Wanxuan Xie, Siyuan Chen, Huahui Su and Yunfeng Yan\*



## PAPERS

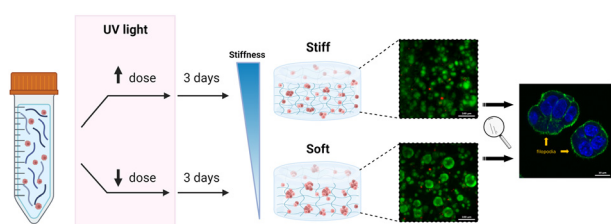
3129



### Post cross-linked ROS-responsive poly( $\beta$ -amino ester)-plasmid polyplex NPs for gene therapy of EBV-associated nasopharyngeal carcinoma

Caiyan Yuan, Shuangyan Chang, Chong Zhang, Dirong Dong, Jiahui Ding, Ali Reza Mahdavian, Zheng Hu, Lili Sun\* and Songwei Tan\*

3144



### Evaluation of gelatin-based hydrogels for colon and pancreas studies using 3D *in vitro* cell culture

Regina Pamplona, Sandra González-Lana, Ignacio Ochoa, Rafael Martín-Rapún\* and Carlos Sánchez-Somolinos\*

## EXPRESSION OF CONCERN

3161

### Expression of Concern: Surface modification of intraocular lenses *via* photodynamic coating for safe and effective PCO prevention

Junmei Tang, Sihao Liu, Yuemei Han, Rui Wang, Jiayi Xia, Hao Chen\* and Quankui Lin\*

