# Journal of Materials Chemistry B

Materials for biology and medicine

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# IN THIS ISSUE

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# Cover

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## Inside cover

See Hui-Fen Wu et al., pp. 6044-6052. Image reproduced by permission of Hui-Fen Wu from J. Mater. Chem. B. 2023, 11, 6044.

# **REVIEWS**

5933

# The rational design of nanozymes for imaging-monitored cancer therapy

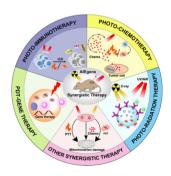
Zhe Dong, Peng Liang, Youjuan Wang, Guoqiang Guan, Lili Teng, Renye Yue, Chang Lu, Shuangyan Huan, Xia Yin and Guosheng Song\*



5953

# AlEgens for synergistic anticancer therapy

Xinyan Lyu, Junjie Yu, Liping Zhang, Yun Zhao, Zijie Qiu, Youbai Chen,\* Zheng Zhao\* and Ben Zhong Tang\*



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# **REVIEWS**

### 5976

# Photodynamic therapy based on porphyrin-based metal-organic frameworks

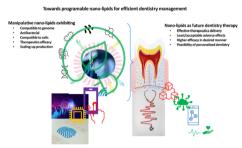
Dongxu Xu, Qian Duan,\* Hui Yu and Wenyue Dong



### 5990

# Lipid nanoparticle-based formulations for high-performance dentistry applications

Isha Mutreja\*, Dhiraj Kumar, Ajeet Kaushik and Yogendra Kumar Mishra\*

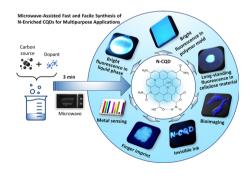


# **PAPERS**

# 6024

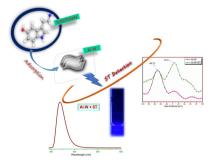
Microwave-assisted rapid synthesis of nitrogenenriched amphibious carbon quantum dots for sensitive detection of ROS and multiple other applications

Ranjit De, Kyung Won Jo, Byoung Hun Lee, Surajit Some\* and Kyong-Tai Kim\*



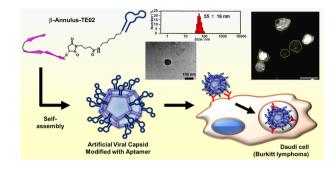
"Synergistic effect" based novel and ultrasensitive approach for the detection of serotonin using **DEM-modulated bimetallic nanosheets** 

Deepak Dabur, Nallin Sharma and Hui-Fen Wu\*



# **PAPERS**

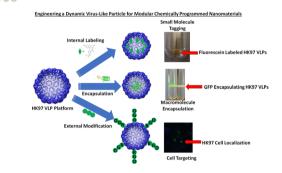
#### 6053



# An artificial viral capsid decorated with a DNA aptamer internalizing into lymphoma cells

Kentarou Sakamoto, Kohsuke Uchiyama, Takashi Iwasaki, Hiroshi Inaba and Kazunori Matsuura\*

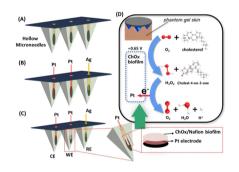
#### 6060



# Engineering the HK97 virus-like particle as a nanoplatform for biotechnology applications

Michael D. Woods, Matthew Cali, Bubacarr Ceesay, Shandis Fancher, Gaini Ibrasheva, Suefian Kandeel, Manon Nassar, Ali Azghani, Brent Bill and Dustin P. Patterson\*

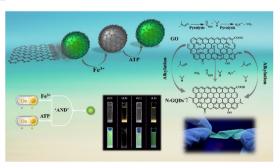
# 6075



# Electrochemical detection of cholesterol in human biofluid using microneedle sensor

Zhanhong Li, Sachin Kadian, Rupesh K. Mishra,\* Tiangang Huang, Chen Zhou, Shuyuan Liu, Zifeng Wang, Roger Narayan\* and Zhigang Zhu\*

### 6082



# Nitrogen-doped graphene quantum dot-based portable fluorescent sensors for the sensitive detection of Fe<sup>3+</sup> and ATP with logic gate operation

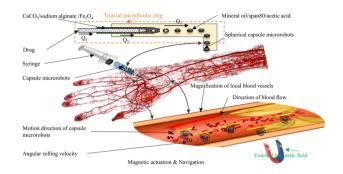
Hongyuan Zhang, Jieqiong Wang, Shanshan Wei, Chenzhao Wang, Xiangyu Yin, Xuewei Song, Chunzhu Jiang and Guoying Sun\*

# **PAPERS**

## 6095

# Magnetically actuated hydrogel-based capsule microrobots for intravascular targeted drug delivery

Shishuai Qiao, Hangkong Ouyang,\* Xiaoguang Zheng, Chongwen Qi and Li Ma\*



#### 6106

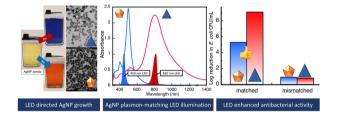
# Chromogenic enzyme substrates based on [2-(nitroaryl)ethenyl]pyridinium and quinolinium derivatives for the detection of nitroreductase activity in clinically important microorganisms

Marie Cellier-Rastit, Valérie Chalansonnet, Arthur L. James, Annette Johnston, Sylvain Orenga, John D. Perry, Celine Roger-Dalbert, Vindhya L. Salwatura, Stephen P. Stanforth,\* Hannah E. Sykes, Viet T. Truong and Graeme Turnbull

### 6114

Silver nanoparticles with exceptional near-infrared absorbance for photoenhanced antimicrobial applications

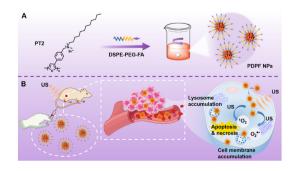
Connor R. Bourgonje, Daliane R. C. da Silva, Ella McIlroy, Nicholas D. Calvert, Adam J. Shuhendler and Juan C. Scaiano\*



# 6123

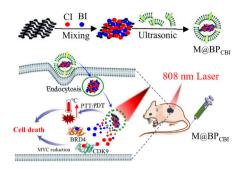
Lysosome- and plasma membrane-accumulative and tumor-targetable polythiophene nanoparticles for enhanced sonodynamic therapy

E Pang, Xuejian Xing, Shaojing Zhao, Qiuxia Tan, Tangna Pan, Ting Yu, Yabing Gan, Benhua Wang, Siyi Tan,\* Yi Zhang,\* Peng Yin, Xiangzhi Song and Minhuan Lan\*



# **PAPERS**

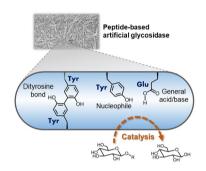
### 6131



# Biomimetic black phosphorus nanosheets codeliver CDK9 and BRD4 inhibitors for gastric cancer targeted therapy

Zhe Zhang, Xiaoyi Zhang, Zhaojun Ren, Xiaoliu Wu, Haishi Qiao, Xin Huang, Wei Zhao,\* Yuanying Zhang\* and Kexin Lou\*

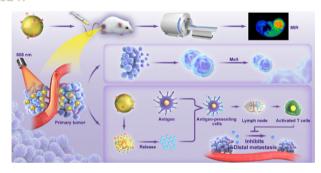
#### 6141



# Improving the catalytic ability of a peptide-based artificial glycosidase through a tyrosine strategy

Lijun Yang, Yi Tian, Yutong Wang, Wei Qi\* and Mengfan Wang\*

### 6147



# Immunological gadolinium-doped mesoporous carbon nanoparticles for tumor-targeted MRI and photothermal-immune co-therapy

Xiaoxi Song, Chun Zhang, Mengyuan Xing, Chunyan He, Dongxu Wang, Lijuan Chong, Xiuli Zhang, Minghui Chen\* and Jingjing Li\*

# CORRECTION

# 6159

### Correction: Lipid nanoparticle-based formulations for high-performance dentistry applications

Isha Mutreja,\* Dhiraj Kumar, Ajeet Kaushik and Yogendra Kumar Mishra\*