

# Journal of Materials Chemistry B

Materials for biology and medicine

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## IN THIS ISSUE

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### Cover

See Shiyao Fu and Xin Yang, pp. 4584–4599. Image reproduced by permission of Xin Yang from *J. Mater. Chem. B*, 2023, 11, 4584.



### Inside cover

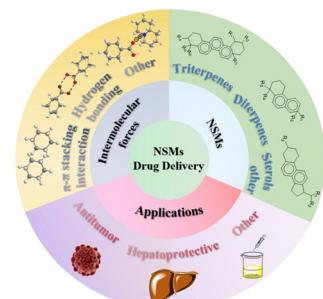
See Ming-You Shie et al., pp. 4666–4676. Image reproduced by permission of Ming-You Shie from *J. Mater. Chem. B*, 2023, 11, 4666.

## REVIEWS

4584

### Recent advances in natural small molecules as drug delivery systems

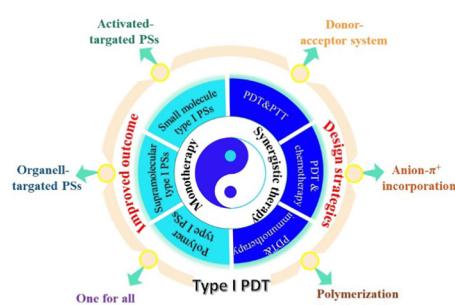
Shiyao Fu and Xin Yang\*



4600

### Recent advances in type I organic photosensitizers for efficient photodynamic therapy for overcoming tumor hypoxia

Bingli Lu, Lingyun Wang,\* Hao Tang and Derong Cao



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# Journal of Materials Chemistry B

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## REVIEWS

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**Natural polyphenol tannin-immobilized composites: rational design and versatile applications**

Xiaoyu Guan, Bingyuan Zhang, Zequn Wang, Qingxin Han,\* Meng An,\* Motoki Ueda\* and Yoshihiro Ito\*

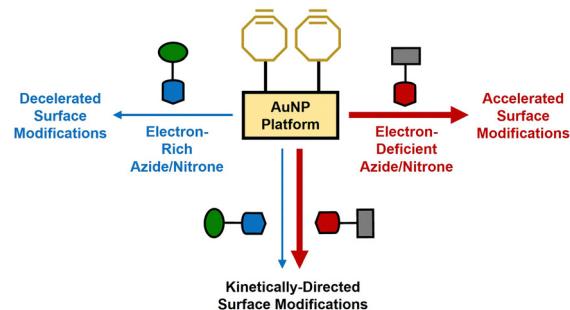


## COMMUNICATION

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**Towards the design of self-sorting nanomaterials through kinetically directed chemoselective control over interfacial surface chemistry**

Praveen N. Gunawardene, Max Weissman, Jack E. Bowman, Pierangelo Gobbo\* and Mark S. Workentin\*

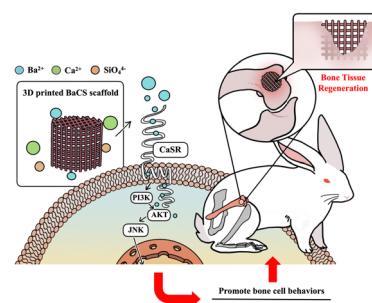


## PAPERS

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**Additive manufacturing of barium-doped calcium silicate/poly- $\epsilon$ -caprolactone scaffolds to activate CaSR and AKT signalling and osteogenic differentiation of mesenchymal stem cells**

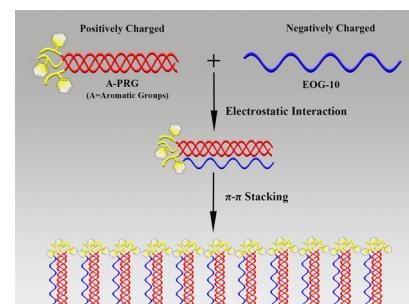
Yung-Cheng Chiu, Yen-Hong Lin, Yi-Wen Chen, Ting-You Kuo and Ming-You Shie\*



4677

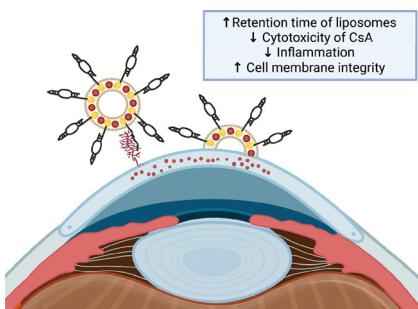
**Peptide-triggered self-assembly of collagen mimetic peptides into nanospheres by electrostatic interaction and  $\pi$ - $\pi$  stacking**

Xiuxia Sun, Siqi Quan, Bo Wang, Qi Wang, Wenhua Li and Jianxi Xiao\*



## PAPERS

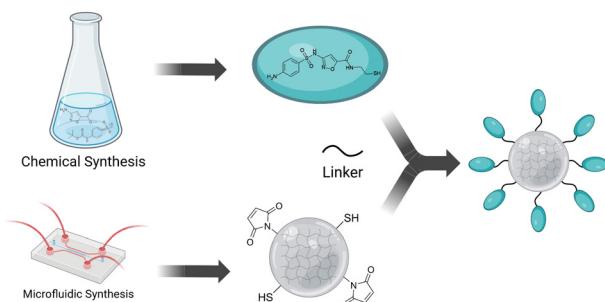
4684



### Mucin-targeting-aptamer functionalized liposomes for delivery of cyclosporin A for dry eye diseases

Ka-Ying Wong, Yibo Liu, Liping Zhou, Man-Sau Wong and Juewen Liu\*

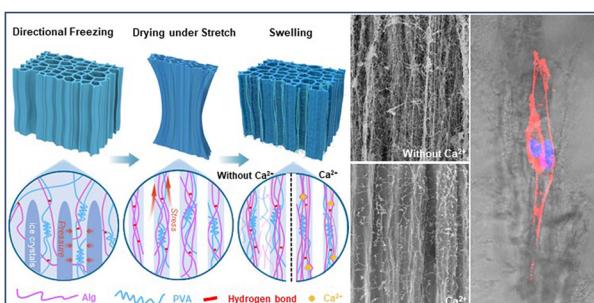
4695



### Development of a synthesis strategy for sulfamethoxazole derivatives and their coupling with hydrogel microparticles

Veronika Riedl, Matthias Portius, Lara Heiser, Philipp Riedl, Torsten Jakob, Rosa Gehring, Thorsten Berg and Tilo Pompe\*

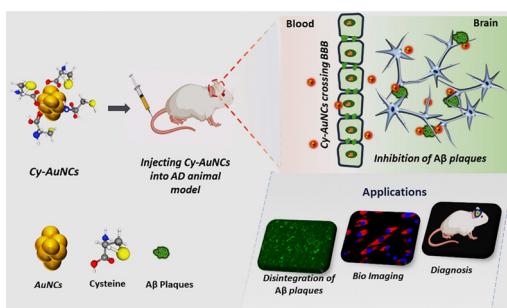
4703



### Hierarchical hydrogel scaffolds with a clustered and oriented structure

Jian Cheng, Jiangtao Xue, Yuan Yang, Dengjie Yu, Zhuo Liu\* and Zhou Li\*

4715



### Bifunctional cysteine gold nanoclusters for $\beta$ -amyloid fibril inhibition and fluorescence imaging: a distinctive approach to manage Alzheimer's disease

A. N. Resmi, C. R. Rekha, M. E. Dhushyandhun, Sarathkumar Elangovan, Sachin J. Shenoy, Kamalesh K. Gulia and Ramapurath S. Jayasree\*

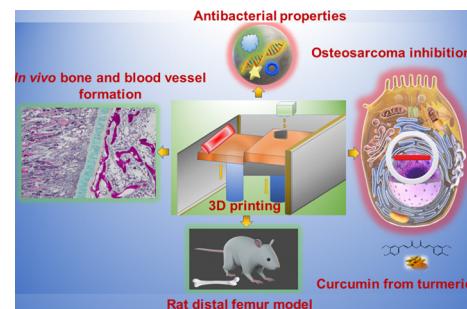


## PAPERS

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***In vivo* and *In vitro* properties evaluation of curcumin loaded MgO doped 3D printed TCP scaffolds**

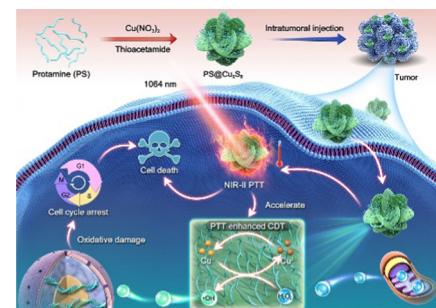
Arjak Bhattacharjee, Yongdeok Jo and Susmita Bose\*



4740

**Flower-like Cu<sub>9</sub>S<sub>8</sub> nanocatalysts with highly active sites for synergistic NIR-II photothermal therapy and chemodynamic therapy**

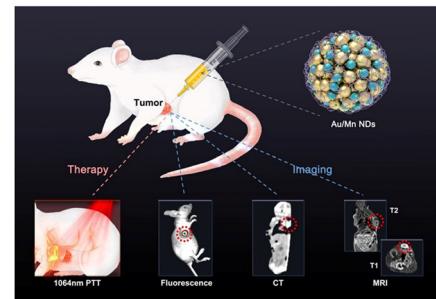
Quan Zou, Haiyan Pan, Xuening Zhang\* and Cai Zhang\*



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**Au/Mn nanodot platform for *in vivo* CT/MRI/Fl multimodal bioimaging and photothermal therapy against tongue cancer**

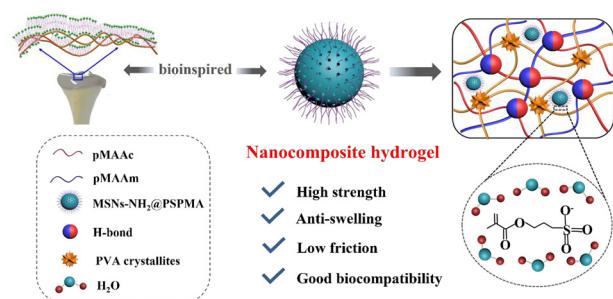
Zhe Yang, Yueqi Zhao, Yang Li, Lei Song, Yangliu Lin, Kaimeng Liu, Yujia Zhang, Andrei V. Zvyagin, Linan Fang,\* Yuanqing Sun,\* Bai Yang and Quan Lin\*



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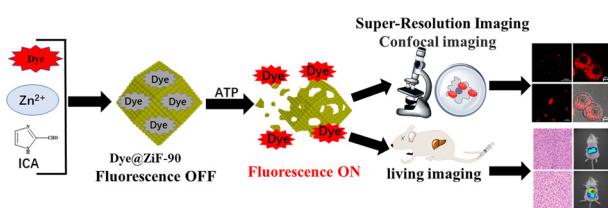
**Cartilage-bioinspired, tough and lubricated hydrogel based on nanocomposite enhancement effect**

Fen Xiao, Pengshuo Zheng, Jianxin Tang, Xin Huang, Wenji Kang, Guiyin Zhou\* and Kehui Sun



## PAPERS

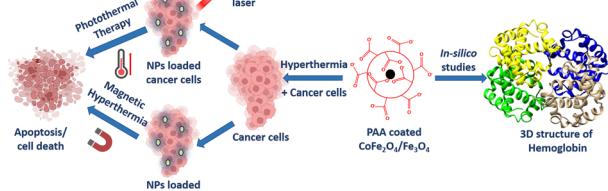
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### ATP-triggered highly sensitive probes for super-resolution mitochondrial imaging and low-dose bioimaging

Taihe Han, Jinlong Zhang, Shuai Mu, Huihui Li, Shuangtong Wu, Xiaoyan Liu and Haixia Zhang\*

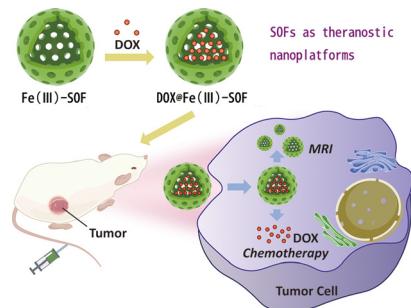
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### Comparative analysis of cobalt ferrite and iron oxide nanoparticles using bimodal hyperthermia, along with physical and *in silico* interaction with human hemoglobin

Kritika, Megha Pant, Monika Yadav, Anita Kamra Verma, Ajit K. Mahapatro and Indrajit Roy\*

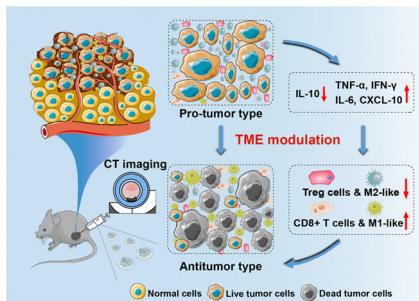
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### An iron(III) complex-based supramolecular organic framework (SOF) as a theranostic platform *via* magnetic resonance imaging-guided chemotherapy

Pengpeng Hu, Hong Mo,\* Saijie Song,\* Jing Wu, Jihui Li and Jian Shen\*

4808



### Diselenide-crosslinked nanogels laden with gold nanoparticles and methotrexate for immunomodulation-enhanced chemotherapy and computed tomography imaging of tumors

Bingyang Jia, Yue Gao, Zhijun Ouyang, Siyan Shen, Mingwu Shen and Xiangyang Shi\*



## CORRECTIONS

4819

**Correction: Blood brain barrier permeable gold nanocluster for targeted brain imaging and therapy: an *in vitro* and *in vivo* study**

L. V. Nair, R. V. Nair, S. J. Shenoy, A. Thekkuveetttil and R. S. Jayasree\*

4820

**Correction: LHRH conjugated gold nanoparticles assisted efficient ovarian cancer targeting evaluated via spectral photon-counting CT imaging: a proof-of-concept research**

Dhiraj Kumar,\* Mahdieh Moghiseh, Kenny Chitcholtan, Isha Mutreja, Chiara Lowe, Ajeet Kaushik, Anthony Butler, Peter Sykes, Nigel Anderson and Aamir Raja

