

# Biomaterials Science

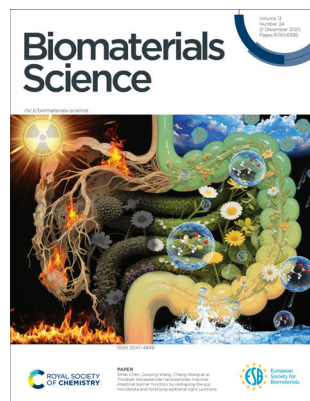
An international high impact journal exploring the underlying science behind the function, interactions and design of biomaterials

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## IN THIS ISSUE

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### Cover

See Shilei Chen,  
Junping Wang, Cheng Wang  
*et al.*, pp. 6775–6790.

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6775.

## EDITORIAL

6753

### Emerging innovations in 3D and 4D bioprinting

Nasim Annabi

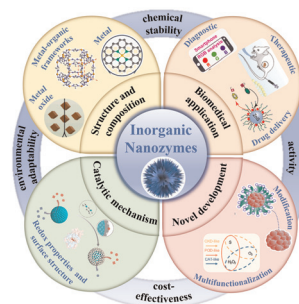


## REVIEW

6755

### Recent developments and prospects of inorganic nanozymes for biomedical applications

Siqi Zhan, Yan Fu, Hong Yu Yang\* and Doo Sung Lee\*



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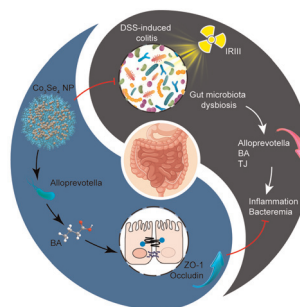
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6775

### Tricobalt tetraselenide nanoparticles improve intestinal barrier function by reshaping the gut microbiota and fortifying epithelial tight junctions

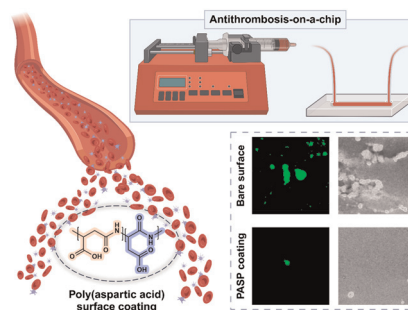
Yin Chen, Na Zhao, Songling Han, Gaomei Zhao, Yiyi Jiang, Chenwenya Li, Yingjuan He, Yangxue Ou, Jining Gao, Tao Wang, Jinghong Zhao, Jia Cao, Shilei Chen,\* Junping Wang\* and Cheng Wang\*



6791

### Polyaspartic acid coatings for blood-contacting surfaces: Promising antithrombotic and antibacterial properties under static and dynamic conditions

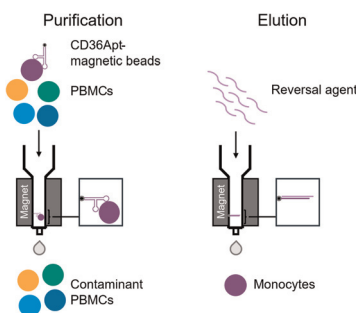
Cuong Hung Luu, Dimple Sajin, Hoang Huy Vu, Nhat-Khuong Nguyen, Nam-Trung Nguyen and Hang Thu Ta\*



6805

### Rapid and label-free isolation of human peripheral blood monocytes using a reversible CD36-binding aptamer for cell capture

Melissa Ling, Nataly Kacherovsky, Abe Y. Wu, Minjian Ni, Jessica A. Hamerman and Suzie H. Pun\*



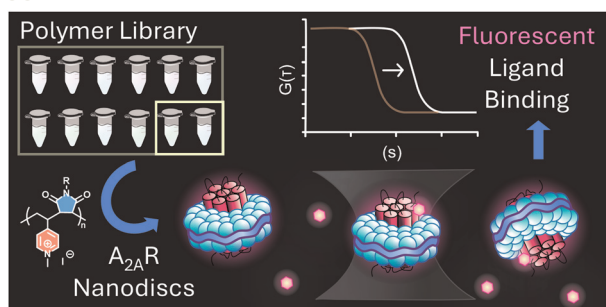
6818

### Short-peptide based supramolecular nanocomposite hydrogels for the disruption of polymicrobial biofilms and accelerated infected wound healing

Sudip Mukherjee, Manuel Núñez-Martínez, Sara Illescas-Lopez, Archanna Jeyakumar, Modesto Torcuato Lopez-Lopez, Juan Manuel Cuerva, Vaibhav Bhatia, José Antonio Gavira, Luis Álvarez de Cienfuegos\* and Jayanta Haldar\*



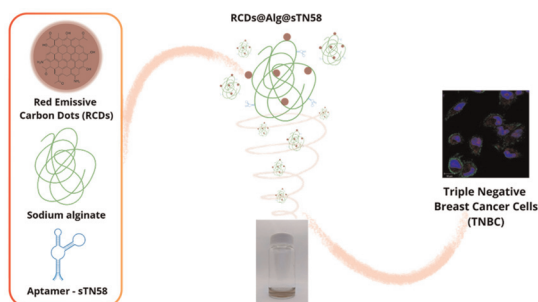
6837



### Native adenosine A<sub>2A</sub> receptor solubilisation by a library of amphipathic copolymers

Michelle D. Farrelly, Nazanin Mohebali, Emma Dal Maso, Cameron J. Nowell, Denise Wootten, Patrick M. Sexton, Lisandra L. Martin\* and San H. Thang\*

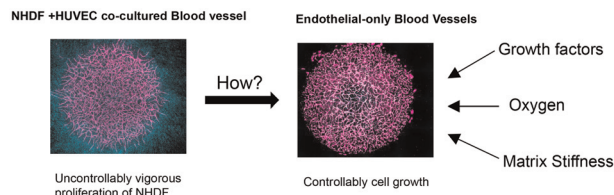
6855



### A red emitting carbon dot and aptamer-functionalized alginate system for targeted triple-negative breast cancer imaging

Simone Maturi, Alessandra Caliendo, Silvia Tortorella, Nina Kostevšek, Erica Locatelli, Mauro Comes Franchini, Lisa Agnello, Simona Camorani, Laura Cerchia\* and Letizia Sambri\*

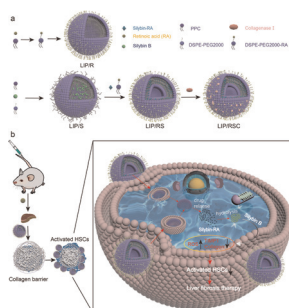
6865



### Fabrication of blood capillary microtissues without fibroblast support via growth factors and matrix stiffness modulation

He Li, Fiona Louis and Michiya Matsusaki\*

6879



### Cationic PPC liposomes with dual targeting modules for enhanced liver fibrosis therapy via the extracellular matrix barrier

Yong Li, Yuanyuan Zhou, Lifang Wu, Quanyuan Gao and Wei Wang\*

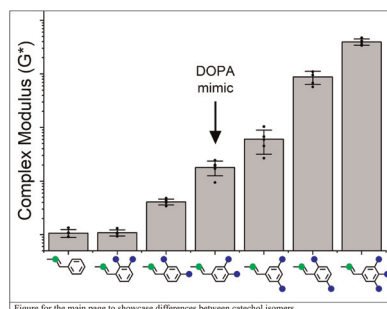


## PAPERS

6897

**Catechol isomers for moisture initiated bioadhesives**

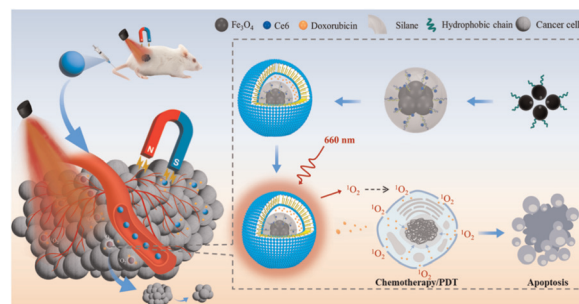
Konrad Kozlowski, Animesh Ghosh, Zong Yao Liu, Zhonghan Zhang, Shuzhou Li and Terry W. J. Steele\*



6906

**A trimodal magnetic navigation-enhanced nanoplatform for spatiotemporally controlled chemo-photodynamic synergistic cancer therapy**

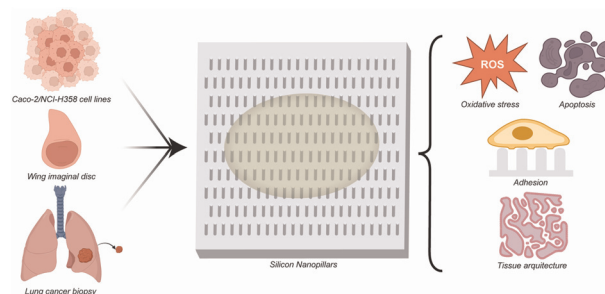
Cui Ma, Yaqi Cui, Bailong Liu, Min Liu,\* Xia Chen\* and Biao Dong\*



6918

**Silicon-based nanopillars: a novel platform for tissue applications**

Cristiano Piergallini, Natalia Díaz-Valdivia, Alba Deyà, Patricia Fernández-Nogueira, Rahul Singh, Christian Vinther Bertelsen, Winnie Edith Svendsen, Montserrat Corominas, Lourdes Gombau, Héctor Sanz-Fraile, Noemí Reguart, Albert Romano-Rodríguez, Florenci Serras, Noemí de Luna, Jordi Alcaraz\* and Marta Ollé-Monge\*



## CORRECTIONS

6932

**Correction: TPP-coated Mo-doped  $W_{18}O_{49}$  biodegradable nanomaterials with mitochondria-targeting and pH-responsive properties for synergistic photothermal therapy/chemodynamic therapy/chemotherapy**

Yingjuan Ren, Wenhui Yi,\* Jie Gao, Nan Wang\* and Di Zhuang



## CORRECTIONS

6933

**Correction: Artificial testis: a testicular tissue extracellular matrix as a potential bio-ink for 3D printing**

Zahra Bashiri, Iraj Amiri, Mazaher Gholipourmalekabadi, Reza Falak, Hamidreza Asgari, Chad B. Maki, Ali Moghaddaszadeh and Morteza Koruji\*

