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Materials for biology and medicine

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Inside cover

See Antonio Guerra-Contreras *et al.*, pp. 7076–7089. Image reproduced by permission of Abygail Camacho Ramirez and Antonio Guerra-Contreras from *J. Mater. Chem. B*, 2024, 12, 7076.

EDITORIAL

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Introduction to stimuli responsive materials for biomedical applications

Mary Beth B. Monroe,* N. D. Pradeep Singh* and Yanli Zhao*

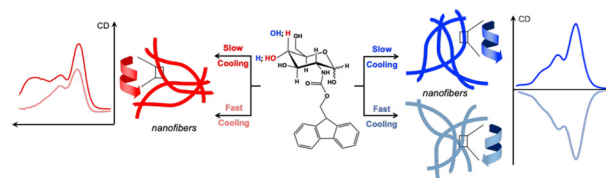


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Cooling rate uncovers epimer-dependent supramolecular organization of carbohydrate amphiphiles

Vânia I. B. Castro, Yuting Gao, Alexandra Brito, Jie Chen, Rui L. Reis, Iva Pashkuleva* and Ricardo A. Pires*



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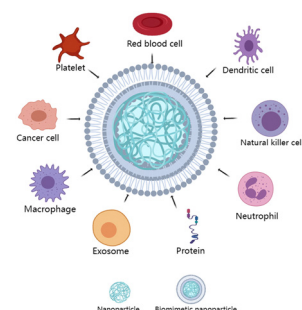


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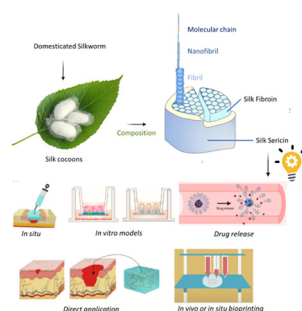
Wei qi Kang, Zhe Xu, Haiying Lu, Siwei Liu, Jianshu Li, Chunmei Ding* and Yongping Lu*



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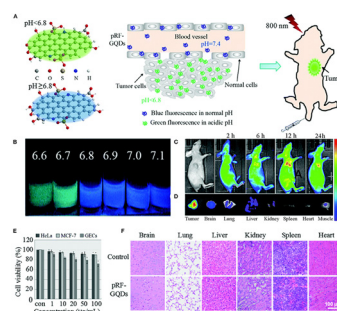
Anabela Veiga, Olivia Foster, David L. Kaplan and Ana Leite Oliveira*



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Recent breakthroughs in graphene quantum dot-enhanced sonodynamic and photodynamic therapy

Seyyed Mojtaba Mousavi, Masoomeh Yari Kalashgrani, Negar Javanmardi, Mohsen Riazi, Muhammad Hussnain Akmal, Vahid Rahmanian, Ahmad Gholami* and Wei-Hung Chiang*

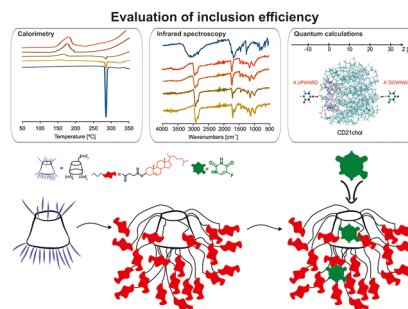


PAPERS

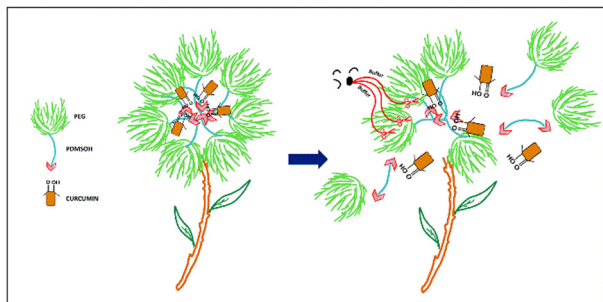
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Encapsulation of 5-fluorouracil in cholesteryl-modified cyclodextrin: thermal, spectral, and computational assessment of drug inclusion efficiency

Paweł Misiak,* Bartosz Maliszewski, Zuzanna Pawłowska, Anna Ignaczak* and Agnieszka Z. Wilczewska*



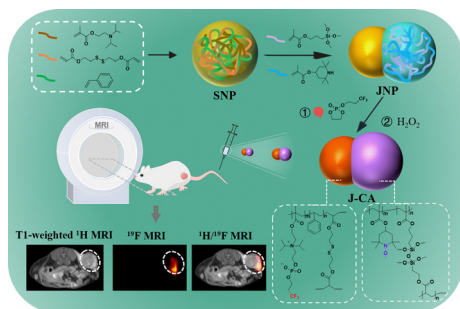
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One-step synthesis of amphiphilic copolymers PDMS-*b*-PEG using tris(pentafluorophenyl)borane and subsequent study of encapsulation and release of curcumin

Abygail Camacho-Ramírez, Miguel Meléndez-Zamudio, Jorge Cervantes, Gabriela Palestino and Antonio Guerra-Contreras*

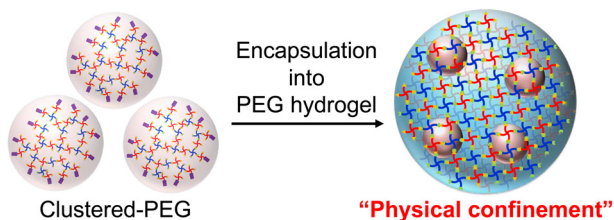
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A polymeric $^1\text{H}/^{19}\text{F}$ dual-modal MRI contrast agent with a snowman-like Janus nanostructure

Ziwei Duan, Jialei Han, Yadong Liu, Xinyu Zhao, Bo Wang, Shuaishuai Cao* and Dalin Wu*

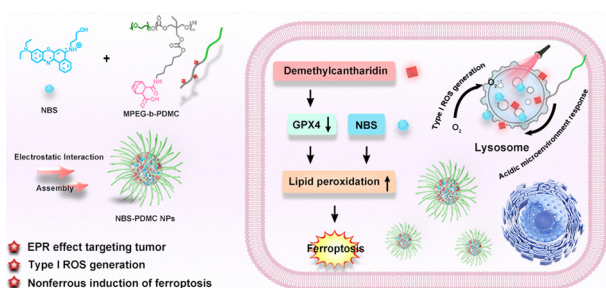
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Enhancing cell adhesion in synthetic hydrogels via physical confinement of peptide-functionalized polymer clusters

Shohei Ishikawa,* Hiroyuki Kamata* and Takamasa Sakai

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Charge-reversal polymeric nanomodulators for ferroptosis-enhanced photodynamic therapy

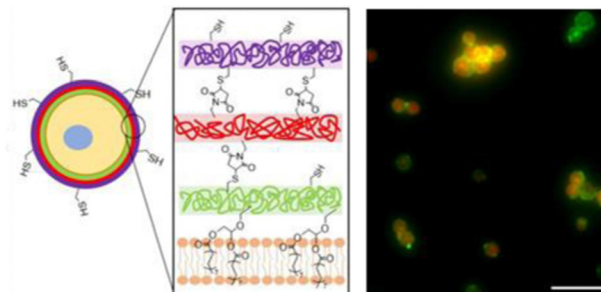
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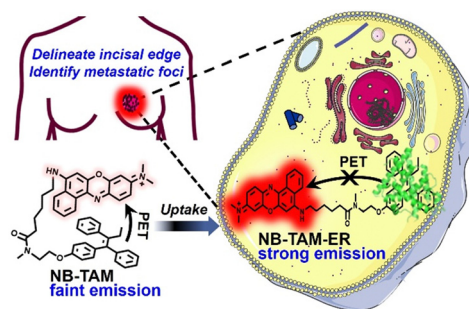
Jack Whitewolf and Christopher B. Highley*



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Clearly fluorescent delineating ER+ breast tumor incisal edge and identifying tiny metastatic tumor foci at high resolution

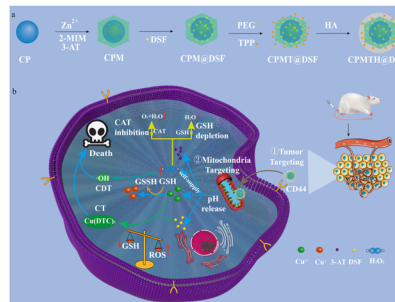
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Engineering of a double targeting nanoplatform to elevate ROS generation and DSF anticancer activity

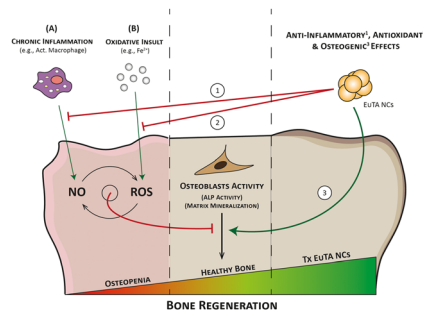
Wenqiu Li, Haowu Huang, Shunyu Yao, Yiwang Zhao, Mingxing Liu, Xiaoqing Liu and Huiling Guo*



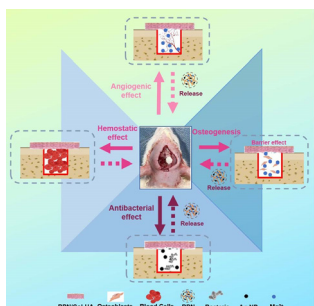
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Europium–tannic acid nanocomplexes devised for bone regeneration under oxidative or inflammatory environments

Daniel Fernández-Villa, María Rosa Aguilar and Luis Rojo*



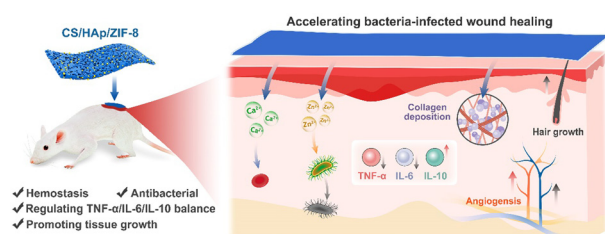
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A multifunctional collagen-base bilayer membrane integrated with a bimetallic/polydopamine network for enhanced guided bone regeneration

Dou Huang, Die Yang, Kaide Li, Jiran Wang, Xiaohui Zheng, Jie Long and Lei Liu*

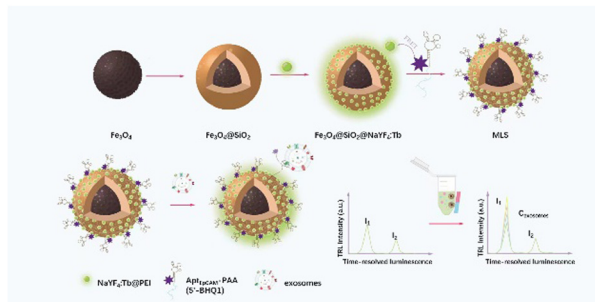
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A multifunctional chitosan based porous membrane for pH-responsive antibacterial activity and promotion of infected wound healing

Shan Pu, Jiale Zhang, Chaoting Shi, Xiandeng Hou, Ka Li, Jinhua Feng* and Lan Wu*

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Magnetic lanthanide sensor with self-ratiometric time-resolved luminescence for accurate detection of epithelial cancerous exosomes

Yating Zeng, Xuekang Wang, Nanhang Zhu, Yue Yu, Xingyou Wang, Ke Kang, Yao Wu and Qiangying Yi*

