

Biomaterials Science

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

rsc.li/biomaterials-science

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 2047-4849 CODEN BSICCH 14(4) 929–1124 (2026)



Cover

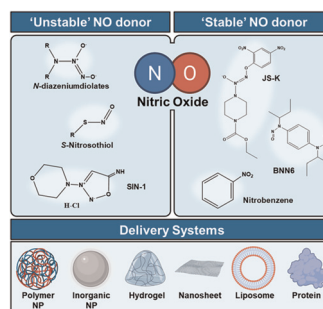
Image reproduced by permission of Hwanyong Choi and Jinah Jang.

REVIEWS

936

Engineering delivery platforms for controlled nitric oxide release

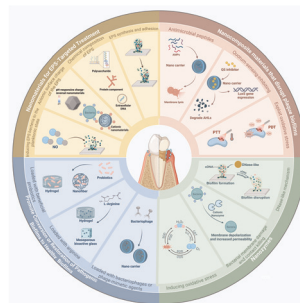
Sang-Hun Choi, Chae Yeon Han, Kyeong Jin Cho, Kangmin No and Jihoon Kim*



952

Dental plaque biofilm-targeting composite nanomaterials: advances and outlook

Jiaxuan Zhao, Shengyuan Huang, Yongjia Yang, Jilei Wang, Qianqian Guo, Yueming Xu, Bingyin Jiang* and Jiang Lin*



EES Catalysis

GOLD
OPEN
ACCESS

Exceptional research on energy
and environmental catalysis

Open to everyone. Impactful for all

rsc.li/EESCatalysis

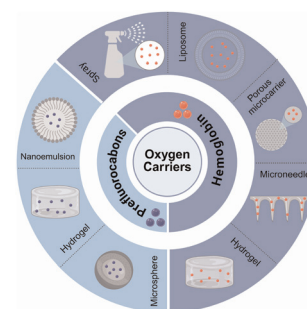
Fundamental questions
Elemental answers

REVIEWS

990

Oxygen carriers: core strategies for modulating hypoxic microenvironments and promoting healing in chronic wounds

Meilin Liu, Yuzhi Chen, Kai Zhu, Shiyu Tao, Yao Xiao, Lian Zhao* and Lianju Ma*

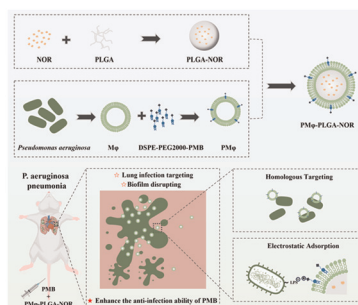


PAPERS

1009

Norharmane-loaded bacterial cytoplasmic membrane-coated nanoparticles synergistically enhance polymyxin B against *Pseudomonas aeruginosa* infections by disrupting biofilms

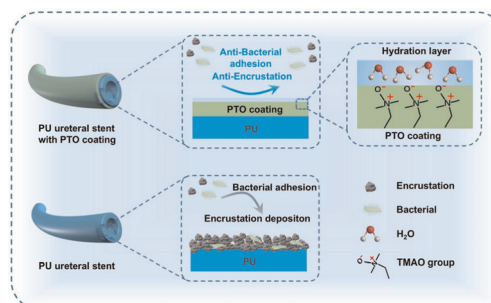
Meilin Qiao, Licheng Gao, Ruibing Yu, Jianwei Chen, Xuanrong Sun* and Yue Cai*



1023

A superhydrophilic zwitterionic hydrogel coating for enhancing long-term anti-bacterial adhesion and anti-encrustation properties of ureteral stents

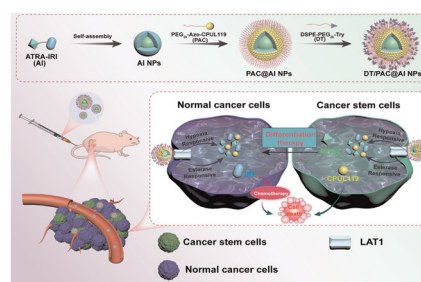
Zhenqing Li, Jiawei Li, Lei Qian, Ye Tian, Haoyu Jin, Peng Yu, Zhengao Wang,* Chengyun Ning* and Jinxia Zhai*



1034

A multiple-responsive nano-prodrug combining chemo-differentiation–cancer stem cell inhibition toward triple-negative breast cancer

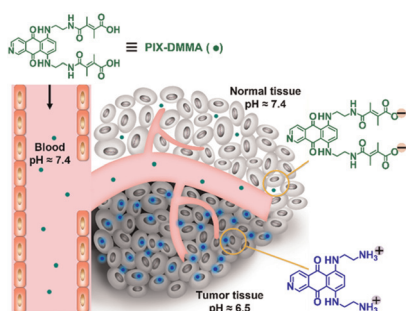
Yanting Li, Mengdan Ning, Haoping Long, Jiayi Zuo, Jinqiu Liang, Ting Yuan, Feng Cao,* Yong Yin* and Feng Jiang*



"Chemo-differentiation–cancer stem cells inhibition" nano-prodrug platform against triple-negative breast cancer



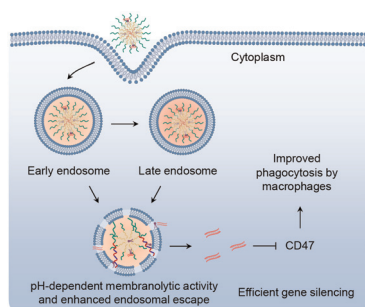
1052



A charge-reversal prodrug activated by tumor-acidity for selective cancer chemotherapy

Bing Liu, Guanchun Wang,* Quanjun Yang, Yang Yu, Yue Su, Wei Huang, Ping Wang, Deyue Yan* and Ping Huang*

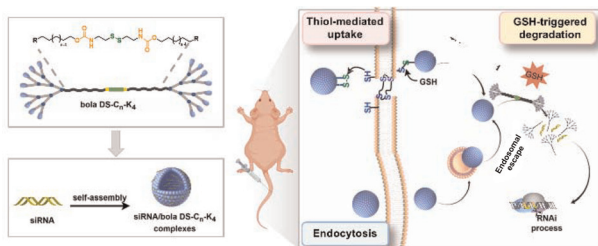
1062



A pH-ultrasensitive membranolytic polymer-assisted delivery system for enhanced siRNA delivery

Yue Yu, Houbing Zhang, Xianzhu Yang, Jun Wang, Menghua Xiong* and Xiaojiao Du*

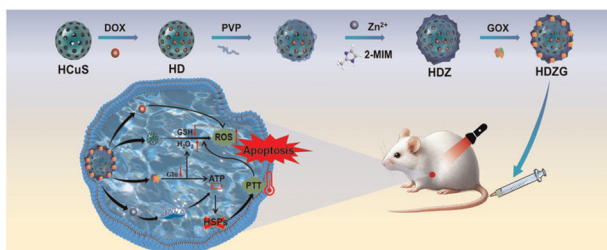
1073



Glutathione-activatable bola dendrimers mediate tumor-specific cytosolic siRNA delivery via dynamic thiol-disulfide exchange

Dandan Zhu, Huiling Zhu, Yaoyun Yu, Junyue Zheng, Xianhui Lin, Huimin Cheng, Aoxue Mei, Ming Chen, Yun Li, Haijuan Dong, Jiehua Zhou, Juan Liu* and Xiaoxuan Liu*

1086



Self-enhanced multifunctional nanoplatforams for tumor-specific synergistic therapy via NIR-induced mild photothermal and chemodynamic effects

Xi Zhang, Zhiping Song, Yu Han, Jingtong An, Qishan Xu, Xiangyan Chen* and Yantao Li*

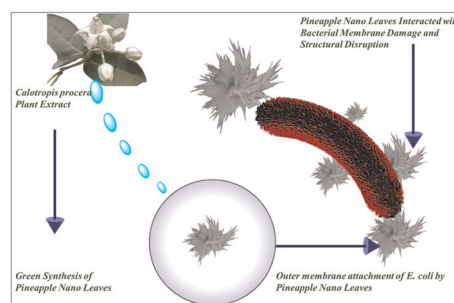


PAPERS

1098

Calotropis procera flower extracts: a green approach to zinc oxide with a pineapple-like nanoleaf morphology for biological applications

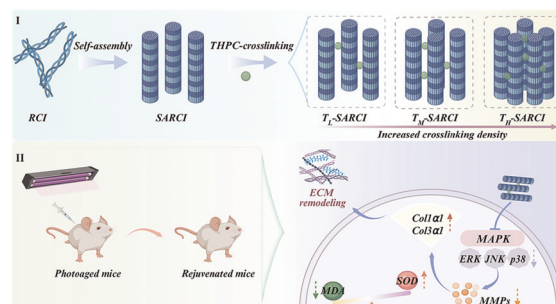
Karvelan Murugan,* Udayadasan Sathiskumar, Rajakannu Subashini, Ramachandran Chelliah, Govindasamy Hariharan, Mohan Vedhanayagam and Narasimman Selvakumar



1110

Injectable crosslinked recombinant collagen nanofiber implants enable robust regenerative repair of photoaged skin

Nannan Wei, Yuchen Zhang, Xinyu Tian, Linyan Yao and Jianxi Xiao*



CORRECTION

1122

Correction: Ciprofloxacin-loaded bioadhesive hydrogels for ocular applications

Islam A. Khalil, Bahram Saleh, Dina M. Ibrahim, Clotilde Jumelle, Ann Yung, Reza Dana and Nasim Annabi*

