**Nanobiomedicine (2022-2024)**

[Browse in the web](https://link.springer.com/collections/bhfgggfbic)

1. **Self-Healing Dynamic Hydrogel Microparticles with Structural Color for Wound Management (Article)**

Li Wang, Xiaoya Ding, Lu Fan, Anne M. Filppula, Qinyu Li, Hongbo Zhang, Yuanjin Zhao & Luoran Shang

Nano-Micro Lett. 16, 232 (2024). <https://doi.org/10.1007/s40820-024-01422-4>

1. **Enhancing the Photosensitivity of Hypocrellin A by Perylene Diimide Metallacage-Based Host–Guest Complexation for Photodynamic Therapy (Article)**

Rongrong Li, Tianfeng Yang, Xiuhong Peng, Qian Feng, Yali Hou, Jiao Zhu, Dake Chu, Xianglong Duan, Yanming Zhang & Mingming Zhang

Nano-Micro Lett. 16, 226 (2024). <https://doi.org/10.1007/s40820-024-01438-w>

1. **Microgels for Cell Delivery in Tissue Engineering and Regenerative Medicine (Review)**

Leyan Xuan, Yingying Hou, Lu Liang, Jialin Wu, Kai Fan, Liming Lian, Jianhua Qiu, Yingling Miao, Hossein Ravanbakhsh, Mingen Xu & Guosheng Tang

Nano-Micro Lett. 16, 218 (2024). <https://doi.org/10.1007/s40820-024-01421-5>

1. **Understanding the Novel Approach of Nanoferroptosis for Cancer Therapy (Review)**

Afsana Sheikh, Prashant Kesharwani, Waleed H. Almalki, Salem Salman Almujri, Linxin Dai, Zhe-Sheng Chen, Amirhossein Sahebkar & Fei Gao

Nano-Micro Lett. 16, 188 (2024). <https://doi.org/10.1007/s40820-024-01399-0>

1. **Diamond-Like Carbon Depositing on the Surface of Polylactide Membrane for Prevention of Adhesion Formation During Tendon Repair (Article)**

Yao Xiao, Zaijin Tao, Yufeng Ju, Xiaolu Huang, Xinshu Zhang, Xiaonan Liu, Pavel A. Volotovski, Chao Huang, Hongqi Chen, Yaozhong Zhang & Shen Liu

Nano-Micro Lett. 16, 186 (2024). <https://doi.org/10.1007/s40820-024-01392-7>

1. **ROS Balance Autoregulating Core–Shell CeO2@ZIF-8/Au Nanoplatform for Wound Repair (Article)**

Xi Zhou, Quan Zhou, Zhaozhi He, Yi Xiao, Yan Liu, Zhuohang Huang, Yaoji Sun, Jiawei Wang, Zhengdong Zhao, Xiaozhou Liu, Bin Zhou, Lei Ren, Yu Sun, Zhiwei Chen & Xingcai Zhang

Nano-Micro Lett. 16, 156 (2024). <https://doi.org/10.1007/s40820-024-01353-0>

1. **Active Micro-Nano-Collaborative Bioelectronic Device for Advanced Electrophysiological Recording (Review)**

Yuting Xiang, Keda Shi, Ying Li, Jiajin Xue, Zhicheng Tong, Huiming Li, Zhongjun Li, Chong Teng, Jiaru Fang & Ning Hu

Nano-Micro Lett. 16, 132 (2024). <https://doi.org/10.1007/s40820-024-01336-1>

1. **A Self-Healing Optoacoustic Patch with High Damage Threshold and Conversion Efficiency for Biomedical Applications (Article)**

Tao Zhang, Cheng-Hui Li, Wenbo Li, Zhen Wang, Zhongya Gu, Jiapu Li, Junru Yuan, Jun Ou-Yang, Xiaofei Yang & Benpeng Zhu

Nano-Micro Lett. 16, 122 (2024). <https://doi.org/10.1007/s40820-024-01346-z>

1. **Highly Elastic, Bioresorbable Polymeric Materials for Stretchable, Transient Electronic Systems (Article)**

Jeong-Woong Shin, Dong-Je Kim, Tae-Min Jang, Won Bae Han, Joong Hoon Lee, Gwan-Jin Ko, Seung Min Yang, Kaveti Rajaram, Sungkeun Han, Heeseok Kang, Jun Hyeon Lim, Chan-Hwi Eom, Amay J. Bandodkar & Suk-Won Hwang

Nano-Micro Lett. 16, 102 (2024). <https://doi.org/10.1007/s40820-023-01268-2>

1. **Highly Aligned Ternary Nanofiber Matrices Loaded with MXene Expedite Regeneration of Volumetric Muscle Loss (Article)**

Moon Sung Kang, Yeuni Yu, Rowoon Park, Hye Jin Heo, Seok Hyun Lee, Suck Won Hong, Yun Hak Kim & Dong-Wook Han

Nano-Micro Lett. 16, 73 (2024). <https://doi.org/10.1007/s40820-023-01293-1>

1. **Advances in Wireless, Batteryless, Implantable Electronics for Real-Time, Continuous Physiological Monitoring (Review)**

Hyeonseok Kim, Bruno Rigo, Gabriella Wong, Yoon Jae Lee & Woon-Hong Yeo

Nano-Micro Lett. 16, 52 (2024). <https://doi.org/10.1007/s40820-023-01272-6>

1. **Biological Interaction and Imaging of Ultrasmall Gold Nanoparticles (Review)**

Dongmiao Sang, Xiaoxi Luo & Jinbin Liu

Nano-Micro Lett. 16, 44 (2024). <https://doi.org/10.1007/s40820-023-01266-4>

1. **Recent Developments in Metallic Degradable Micromotors for Biomedical and Environmental Remediation Applications (Review )**

Sourav Dutta, Seungmin Noh, Roger Sanchis Gual, Xiangzhong Chen, Salvador Pané, Bradley J. Nelson & Hongsoo Choi

Nano-Micro Lett. 16, 41 (2024). <https://doi.org/10.1007/s40820-023-01259-3>

1. **Gelatin-Based Metamaterial Hydrogel Films with High Conformality for Ultra-Soft Tissue Monitoring (Article)**

Yuewei Chen, Yanyan Zhou, Zihe Hu, Weiying Lu, Zhuang Li, Ning Gao, Nian Liu, Yuanrong Li, Jing He, Qing Gao, Zhijian Xie, Jiachun Li & Yong He

Nano-Micro Lett. 16, 34 (2024). <https://doi.org/10.1007/s40820-023-01225-z>

1. **A Stable Open-Shell Conjugated Diradical Polymer with Ultra-High Photothermal Conversion Efficiency for NIR-II Photo-Immunotherapy of Metastatic Tumor (Article)**

Yijian Gao, Ying Liu, Xiliang Li, Hui Wang, Yuliang Yang, Yu Luo, Yingpeng Wan, Chun-sing Lee, Shengliang Li & Xiao-Hong Zhang

Nano-Micro Lett. 16, 21 (2024). <https://doi.org/10.1007/s40820-023-01219-x>

1. **Core–Shell Microfiber Encapsulation Enables Glycerol-Free Cryopreservation of RBCs with High Hematocrit (Article)**

Xianhui Qin, Zhongrong Chen, Lingxiao Shen, Huilan Liu, Xilin Ouyang & Gang Zhao

Nano-Micro Lett. 16, 3 (2024). <https://doi.org/10.1007/s40820-023-01213-3>

1. **Intelligent Vascularized 3D/4D/5D/6D-Printed Tissue Scaffolds (Review)**

Xiaoyu Han, Qimanguli Saiding, Xiaolu Cai, Yi Xiao, Peng Wang, Zhengwei Cai, Xuan Gong, Weiming Gong, Xingcai Zhang & Wenguo Cui

Nano-Micro Lett. 15, 239 (2023). <https://doi.org/10.1007/s40820-023-01187-2>

1. **Biocatalytic Buoyancy-Driven Nanobots for Autonomous Cell Recognition and Enrichment (Article)**

Ziyi Guo, Chenchen Zhuang, Yihang Song, Joel Yong, Yi Li, Zhong Guo, Biao Kong, John M. Whitelock, Joseph Wang & Kang Liang

Nano-Micro Lett. 15, 236 (2023). <https://doi.org/10.1007/s40820-023-01207-1>

1. **Artificial Macrophage with Hierarchical Nanostructure for Biomimetic Reconstruction of Antitumor Immunity (Article)**

Henan Zhao, Renyu Liu, Liqiang Wang, Feiying Tang, Wansong Chen & You-Nian Liu

Nano-Micro Lett. 15, 216 (2023). <https://doi.org/10.1007/s40820-023-01193-4>

1. **Bioorthogonal Engineered Virus-Like Nanoparticles for Efficient Gene Therapy (Article)**

Chun-Jie Bao, Jia-Lun Duan, Ying Xie, Xin-Ping Feng, Wei Cui, Song-Yue Chen, Pei-Shan Li, Yi-Xuan Liu, Jin-Ling Wang, Gui-Ling Wang & Wan-Liang Lu

Nano-Micro Lett. 15, 197 (2023). <https://doi.org/10.1007/s40820-023-01153-y>

1. **Tailoring Food Biopolymers into Biogels for Regenerative Wound Healing and Versatile Skin Bioelectronics (Article)**

Qiankun Zeng, Qiwen Peng, Fangbing Wang, Guoyue Shi, Hossam Haick & Min Zhang

Nano-Micro Lett. 15, 153 (2023). <https://doi.org/10.1007/s40820-023-01099-1>

1. **Application of Nano-Delivery Systems in Lymph Nodes for Tumor Immunotherapy (Review)**

Yiming Xia, Shunli Fu, Qingping Ma, Yongjun Liu & Na Zhang

Nano-Micro Lett. 15, 145 (2023). <https://doi.org/10.1007/s40820-023-01125-2>

1. **Swarming Responsive Photonic Nanorobots for Motile-Targeting Microenvironmental Mapping and Mapping-Guided Photothermal Treatment (Article)**

Luolin Li, Zheng Yu, Jianfeng Liu, Manyi Yang, Gongpu Shi, Ziqi Feng, Wei Luo, Huiru Ma, Jianguo Guan & Fangzhi Mou

Nano-Micro Lett. 15, 141 (2023). <https://doi.org/10.1007/s40820-023-01095-5>

1. **Stimuli-Responsive Gene Delivery Nanocarriers for Cancer Therapy (Review)**

Qingfei Zhang, Gaizhen Kuang, Wenzhao Li, Jinglin Wang, Haozhen Ren & Yuanjin Zhao

Nano-Micro Lett. 15, 44 (2023). [https://doi.org/10.1007/s40820-023-01018-4](%20https:/doi.org/10.1007/s40820-023-01018-4)

1. **Bioresource Upgrade for Sustainable Energy, Environment, and Biomedicine (Review)**

Fanghua Li, Yiwei Li, K. S. Novoselov, Feng Liang, Jiashen Meng, Shih-Hsin Ho, Tong Zhao, Hui Zhou, Awais Ahmad, Yinlong Zhu, Liangxing Hu, Dongxiao Ji, Litao Jia, Rui Liu, Seeram Ramakrishna & Xingcai Zhang

Nano-Micro Lett. 15, 35 (2023). <https://doi.org/10.1007/s40820-022-00993-4>

1. **Bacterial Metabolism-Initiated Nanocatalytic Tumor Immunotherapy (Article)**

Wencheng Wu, Yinying Pu, Shuang Gao, Yucui Shen, Min Zhou, Heliang Yao & Jianlin Shi

Nano-Micro Lett. 14, 220 (2022). <https://doi.org/10.1007/s40820-022-00951-0>

1. **Bioinspired Injectable Self-Healing Hydrogel Sealant with Fault-Tolerant and Repeated Thermo-Responsive Adhesion for Sutureless Post-Wound-Closure and Wound Healing (Article)**

Yuqing Liang, Huiru Xu, Zhenlong Li, Aodi Zhangji & Baolin Guo

Nano-Micro Lett. 14, 185 (2022). <https://doi.org/10.1007/s40820-022-00928-z>

1. **Importance of Standardizing Analytical Characterization Methodology for Improved Reliability of the Nanomedicine Literature (Perspective)**

Shahriar Sharifi, Nouf N. Mahmoud, Elizabeth Voke, Markita P. Landry & Morteza Mahmoudi

Nano-Micro Lett. 14, 172 (2022). <https://doi.org/10.1007/s40820-022-00922-5>

1. **CRISPR-Cas12a-Empowered Electrochemical Biosensor for Rapid and Ultrasensitive Detection of SARS-CoV-2 Delta Variant (Communication)**

Chenshuo Wu, Zhi Chen, Chaozhou Li, Yabin Hao, Yuxuan Tang, Yuxuan Yuan, Luxiao Chai, Taojian Fan, Jiangtian Yu, Xiaopeng Ma, Omar A. Al-Hartomy, S. Wageh, Abdullah G. Al-Sehemi, Zhiguang Luo, Yaqing He, Jingfeng Li, Zhongjian Xie & Han Zhang

Nano-Micro Lett. 14, 159 (2022). <https://doi.org/10.1007/s40820-022-00888-4>

1. **Connecting Calcium-Based Nanomaterials and Cancer: From Diagnosis to Therapy (Review)**

Shuang Bai, Yulu Lan, Shiying Fu, Hongwei Cheng, Zhixiang Lu & Gang Liu

Nano-Micro Lett. 14, 145 (2022). <https://doi.org/10.1007/s40820-022-00894-6>

1. **Emerging Strategies in Enhancing Singlet Oxygen Generation of Nano-Photosensitizers Toward Advanced Phototherapy (Review)**

Mohammad Tavakkoli Yaraki, Bin Liu & Yen Nee Tan

Nano-Micro Lett. 14, 123 (2022). <https://doi.org/10.1007/s40820-022-00856-y>

1. **A Therapeutic Sheep in Metastatic Wolf’s Clothing: Trojan Horse Approach for Cancer Brain Metastases Treatment (Article)**

Hai-jun Liu, Mingming Wang, Shanshan Shi, Xiangxiang Hu & Peisheng Xu

Nano-Micro Lett. 14, 114 (2022). <https://doi.org/10.1007/s40820-022-00861-1>

1. **Anti-Parkinsonian Therapy: Strategies for Crossing the Blood–Brain Barrier and Nano-Biological Effects of Nanomaterials (Review)**

Guowang Cheng, Yujing Liu, Rui Ma, Guopan Cheng, Yucheng Guan, Xiaojia Chen, Zhenfeng Wu & Tongkai Chen

Nano-Micro Lett. 14, 105 (2022). <https://doi.org/10.1007/s40820-022-00847-z>

1. **A Sub-Nanostructural Transformable Nanozyme for Tumor Photocatalytic Therapy (Article)**

Xi Hu, Nan Wang, Xia Guo, Zeyu Liang, Heng Sun, Hongwei Liao, Fan Xia, Yunan Guan, Jiyoung Lee, Daishun Ling & Fangyuan Li

Nano-Micro Lett. 14, 101 (2022). <https://doi.org/10.1007/s40820-022-00848-y>

1. **Next-Generation Intelligent MXene-Based Electrochemical Aptasensors for Point-of-Care Cancer Diagnostics (Review)**

Arpana Parihar, Ayushi Singhal, Neeraj Kumar, Raju Khan, Mohd. Akram Khan & Avanish K. Srivastava

Nano-Micro Lett. 14, 100 (2022). <https://doi.org/10.1007/s40820-022-00845-1>

1. **Nanozymes: Versatile Platforms for Cancer Diagnosis and Therapy (Review)**

Xiaodong Zhang, Xiaokai Chen & Yanli Zhao

Nano-Micro Lett. 14, 95 (2022). <https://doi.org/10.1007/s40820-022-00828-2>

1. **Cationic and Anionic Antimicrobial Agents Co-Templated Mesostructured Silica Nanocomposites with a Spiky Nanotopology and Enhanced Biofilm Inhibition Performance (Communication)**

Yaping Song, Qiang Sun, Jiangqi Luo, Yueqi Kong, Bolin Pan, Jing Zhao, Yue Wang & Chengzhong Yu

Nano-Micro Lett. 14, 83 (2022). [https://doi.org/10.1007/s40820-022-00826-4](%20https:/doi.org/10.1007/s40820-022-00826-4)

1. **Visualized SERS Imaging of Single Molecule by Ag/Black Phosphorus Nanosheets (Article)**

Chenglong Lin, Shunshun Liang, Yusi Peng, Li Long, Yanyan Li, Zhengren Huang, Nguyen Viet Long, Xiaoying Luo, Jianjun Liu, Zhiyuan Li & Yong Yang

Nano-Micro Lett. 14, 75 (2022). <https://doi.org/10.1007/s40820-022-00803-x>

1. **Red Blood Cell-Mimic Nanocatalyst Triggering Radical Storm to Augment Cancer Immunotherapy (Article)**

Jiong Li, Sijia Wang, Xinyi Lin, Yanbing Cao, Zhixiong Cai, Jing Wang, Zhenxi Zhang, Xiaolong Liu, Ming Wu & Cuiping Yao

Nano-Micro Lett. 14, 57 (2022). <https://doi.org/10.1007/s40820-022-00801-z>

1. **From Bench to the Clinic: The Path to Translation of Nanotechnology-Enabled mRNA SARS-CoV-2 Vaccines (Review)**

Diana O. Lopez-Cantu, Xichi Wang, Hector Carrasco-Magallanes, Samson Afewerki, Xingcai Zhang, Joseph V. Bonventre & Guillermo U. Ruiz-Esparza

Nano-Micro Lett. 14, 41 (2022). <https://doi.org/10.1007/s40820-021-00771-8>

1. **Self-Assembled Nanomicelles of Affibody-Drug Conjugate with Excellent Therapeutic Property to Cure Ovary and Breast Cancers (Article)**

Xuelin Xia, Xiaoyuan Yang, Wei Huang, Xiaoxia Xia & Deyue Yan

Nano-Micro Lett. 14, 33 (2022). <https://doi.org/10.1007/s40820-021-00762-9>

1. **A MXene-Based Bionic Cascaded-Enzyme Nanoreactor for Tumor Phototherapy/Enzyme Dynamic Therapy and Hypoxia-Activated Chemotherapy (Article)**

Xiaoge Zhang, Lili Cheng, Yao Lu, Junjie Tang, Qijun Lv, Xiaomei Chen, You Chen & Jie Liu

Nano-Micro Lett. 14, 22 (2022). <https://doi.org/10.1007/s40820-021-00761-w>

1. **Biomass Microcapsules with Stem Cell Encapsulation for Bone Repair (Article)**

Lei Yang, Yuxiao Liu, Lingyu Sun, Cheng Zhao, Guopu Chen & Yuanjin Zhao

Nano-Micro Lett. 14, 4 (2022). <https://doi.org/10.1007/s40820-021-00747-8>

1. **Multiplexed Profiling of Extracellular Vesicles for Biomarker Development (Review)**

Cheng Jiang, Ying Fu, Guozhen Liu, Bowen Shu, Jason Davis & George K. Tofaris

Nano-Micro Lett. 14, 3 (2022). <https://doi.org/10.1007/s40820-021-00753-w>

1. **Conductive Biomaterials as Bioactive Wound Dressing for Wound Healing and Skin Tissue Engineering (Review)**

Rui Yu, Hualei Zhang & Baolin Guo

Nano-Micro Lett. 14, 1 (2022). <https://doi.org/10.1007/s40820-021-00751-y>