

Health Monitoring

(2022-2025)

- 1. Advancements in Passive Wireless Sensing Systems in Monitoring Harsh Environment and Healthcare Applications (Review)**
Wei Yue, Yunjian Guo, Jong-Chul Lee, Enkhzaya Ganbold, Jia-Kang Wu, Yang Li, Cong Wang, Hyun Soo Kim, Young-Kee Shin, Jun-Ge Liang, Eun-Seong Kim & Nam-Young Kim
Nano-Micro Lett. 17, 106 (2025). <https://doi.org/10.1007/s40820-024-01599-8>
- 2. A Fully-Printed Wearable Bandage-Based Electrochemical Sensor with pH Correction for Wound Infection Monitoring (Article)**
Kanyawee Kaewpradub, Kornautchaya Veenuttranon, Husanai Jantapaso, Pimonsri Mittraparp-arthorn & Itthipon Jeerapan
Nano-Micro Lett. 17, 71 (2025). <https://doi.org/10.1007/s40820-024-01561-8>
- 3. Low-Temperature Fabrication of Stable Black-Phase CsPbI₃ Perovskite Flexible Photodetectors Toward Wearable Health Monitoring (Article)**
Yingjie Zhao, Yicheng Sun, Chaoxin Pei, Xing Yin, Xinyi Li, Yi Hao, Mengru Zhang, Meng Yuan, Jinglin Zhou, Yu Chen & Yanlin Song
Nano-Micro Lett. 17, 63 (2025). <https://doi.org/10.1007/s40820-024-01565-4>
- 4. A Flexible Smart Healthcare Platform Conjugated with Artificial Epidermis Assembled by Three-Dimensionally Conductive MOF Network for Gas and Pressure Sensing (Article)**
Qingqing Zhou, Qihang Ding, Zixun Geng, Chencheng Hu, Long Yang, Zitong Kan, Biao Dong, Miae Won, Hongwei Song, Lin Xu & Jong Seung Kim
Nano-Micro Lett. 17, 50 (2025). <https://doi.org/10.1007/s40820-024-01548-5>
- 5. Ultra-High Sensitivity Anisotropic Piezoelectric Sensors for Structural Health Monitoring and Robotic Perception (Article)**
Hao Yin, Yanting Li, Zhiying Tian, Qichao Li, Chenhui Jiang, Enfu Liang & Yiping Guo
Nano-Micro Lett. 17, 42 (2025). <https://doi.org/10.1007/s40820-024-01539-6>
- 6. Flexible Graphene Field-Effect Transistors and Their Application in Flexible Biomedical Sensing (Review)**
Mingyuan Sun, Shuai Wang, Yanbo Liang, Chao Wang, Yunhong Zhang, Hong Liu, Yu Zhang & Lin Han
Nano-Micro Lett. 17, 34 (2025). <https://doi.org/10.1007/s40820-024-01534-x>
- 7. Light-Activated Virtual Sensor Array with Machine Learning for Non-Invasive Diagnosis of Coronary Heart Disease (Article)**
Jiawang Hu, Hao Qian, Sanyang Han, Ping Zhang & Yuan Lu
Nano-Micro Lett. 16, 274 (2024). <https://doi.org/10.1007/s40820-024-01481-7>
- 8. Heterogeneous Cu₂O Nano-Skeletons from Waste Electronics for Enhanced Glucose Detection (Article)**

Yexin Pan, Ruohan Yu, Yalong Jiang, Haosong Zhong, Qiaoyaxiao Yuan, Connie Kong Wai Lee, Rongliang Yang, Siyu Chen, Yi Chen, Wing Yan Poon & Mitch Guijun Li
Nano-Micro Lett. 16, 249 (2024). <https://doi.org/10.1007/s40820-024-01467-5>

9. Thermally Conductive and UV-EMI Shielding Electronic Textiles for Unrestricted and Multifaceted Health Monitoring (Article)

Yidong Peng, Jiancheng Dong, Jiayan Long, Yuxi Zhang, Xinwei Tang, Xi Lin, Haoran Liu, Tuoqi Liu, Wei Fan, Tianxi Liu & Yunpeng Huang
Nano-Micro Lett. 16, 199 (2024). <https://doi.org/10.1007/s40820-024-01429-x>

10. MXene-Based Elastomer Mimetic Stretchable Sensors: Design, Properties, and Applications (Review)

Poushali Das, Parham Khoshbakht Marvi, Sayan Ganguly, Xiaowu (Shirley) Tang, Bo Wang, Seshasai Srinivasan, Amin Reza Rajabzadeh & Andreas Rosenkranz
Nano-Micro Lett. 16, 135 (2024). <https://doi.org/10.1007/s40820-024-01349-w>

11. Implantable Electrochemical Microsensors for In Vivo Monitoring of Animal Physiological Information (Review)

Jin Zhou, Shenghan Zhou, Peidi Fan, Xunjia Li, Yibin Ying, Jianfeng Ping & Yuxiang Pan
Nano-Micro Lett. 16, 49 (2024). <https://doi.org/10.1007/s40820-023-01274-4>

12. Outstanding Humidity Chemiresistors Based on Imine-Linked Covalent Organic Framework Films for Human Respiration Monitoring (Article)

Xiyu Chen, Lingwei Kong, Jaafar Abdul-Aziz Mehrez, Chao Fan, Wenjing Quan, Yongwei Zhang, Min Zeng, Jianhua Yang, Nantao Hu, Yanjie Su, Hao Wei & Zhi Yang
Nano-Micro Lett. 15, 149 (2023). <https://doi.org/10.1007/s40820-023-01107-4>

13. Self-Assembled Porous-Reinforcement Microstructure-Based Flexible Triboelectric Patch for Remote Healthcare (Article)

Hao Lei, Haifeng Ji, Xiaohan Liu, Bohan Lu, Linjie Xie, Eng Gee Lim, Xin Tu, Yina Liu, Peixuan Zhang, Chun Zhao, Xuhui Sun & Zhen Wen
Nano-Micro Lett. 15, 109 (2023). <https://doi.org/10.1007/s40820-023-01081-x>

14. Soft Electronics for Health Monitoring Assisted by Machine Learning (Review)

Yancong Qiao, Jinan Luo, Tianrui Cui, Haidong Liu, Hao Tang, Yingfen Zeng, Chang Liu, Yuanfang Li, Jinming Jian, Jingzhi Wu, He Tian, Yi Yang, Tian-Ling Ren & Jianhua Zhou
Nano-Micro Lett. 15, 66 (2023). <https://doi.org/10.1007/s40820-023-01029-1>

15. Bioinspired All-Fibrous Directional Moisture-Wicking Electronic Skins for Biomechanical Energy Harvesting and All-Range Health Sensing (Article)

Chuanwei Zhi, Shuo Shi, Shuai Zhang, Yifan Si, Jieqiong Yang, Shuo Meng, Bin Fei & Jinlian Hu
Nano-Micro Lett. 15, 60 (2023). <https://doi.org/10.1007/s40820-023-01028-2>

16. Humidity Sensing of Stretchable and Transparent Hydrogel Films for Wireless Respiration Monitoring (Article)

Yuning Liang, Qiongleng Ding, Hao Wang, Zixuan Wu, Jianye Li, Zhenyi Li, Kai Tao, Xuchun Gui & Jin Wu

- Nano-Micro Lett. 14, 183 (2022). <https://doi.org/10.1007/s40820-022-00934-1>
- 17. Breathable Electronic Skins for Daily Physiological Signal Monitoring (Review)**
Yi Yang, Tianrui Cui, Ding Li, Shourui Ji, Zhikang Chen, Wancheng Shao, Houfang Liu & Tian-Ling Ren
Nano-Micro Lett. 14, 161 (2022). <https://doi.org/10.1007/s40820-022-00911-8>
- 18. Multifunctional Flexible Humidity Sensor Systems Towards Noncontact Wearable Electronics (Review)**
Yuyao Lu, Geng Yang, Yajing Shen, Huayong Yang & Kaichen Xu
Nano-Micro Lett. 14, 150 (2022). <https://doi.org/10.1007/s40820-022-00895-5>
- 19. Bioinspired MXene-Based User-Interactive Electronic Skin for Digital and Visual Dual-Channel Sensing (Article)**
Wentao Cao, Zheng Wang, Xiaohao Liu, Zhi Zhou, Yue Zhang, Shisheng He, Daxiang Cui & Feng Chen
Nano-Micro Lett. 14, 119 (2022). <https://doi.org/10.1007/s40820-022-00838-0>
- 20. 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>
- 21. Highly Flexible and Broad-Range Mechanically Tunable All-Wood Hydrogels with Nanoscale Channels via the Hofmeister Effect for Human Motion Monitoring (Article)**
Guihua Yan, Shuaiming He, Gaofeng Chen, Sen Ma, Anqi Zeng, Binglin Chen, Shuliang Yang, Xing Tang, Yong Sun, Feng Xu, Lu Lin & Xianhai Zeng
Nano-Micro Lett. 14, 84 (2022). <https://doi.org/10.1007/s40820-022-00827-3>
- 22. Functionalized Fiber-Based Strain Sensors: Pathway to Next-Generation Wearable Electronics (Review)**
Zekun Liu, Tianxue Zhu, Junru Wang, Zijian Zheng, Yi Li, Jiashen Li & Yuekun Lai
Nano-Micro Lett. 14, 61 (2022). <https://doi.org/10.1007/s40820-022-00806-8>