

Sodium Batteries (2022-2025)

[Browse in the web](#)

1. **Ideal Bi-Based Hybrid Anode Material for Ultrafast Charging of Sodium-Ion Batteries at Extremely Low Temperatures (Article)**
Jie Bai, Jian Hui Jia, Yu Wang, Chun Cheng Yang & Qing Jiang
Nano-Micro Lett. 17, 60 (2025). <https://doi.org/10.1007/s40820-024-01560-9>
2. **Sulfolane-Based Flame-Retardant Electrolyte for High-Voltage Sodium-Ion Batteries (Article)**
Xuanlong He, Jie Peng, Qingyun Lin, Meng Li, Weibin Chen, Pei Liu, Tao Huang, Zhencheng Huang, Yuying Liu, Jiaojiao Deng, Shenghua Ye, Xuming Yang, Xiangzhong Ren, Xiaoping Ouyang, Jianhong Liu, Biwei Xiao, Jiangtao Hu & Qianling Zhang
Nano-Micro Lett. 17, 45 (2025). <https://doi.org/10.1007/s40820-024-01546-7>
3. **Optimization Strategies of Na₃V₂(PO₄)₃ Cathode Materials for Sodium-Ion Batteries (Review)**
Jiawen Hu, Xinwei Li, Qianqian Liang, Li Xu, Changsheng Ding, Yu Liu & Yanfeng Gao
Nano-Micro Lett. 17, 33 (2025). <https://doi.org/10.1007/s40820-024-01526-x>
4. **Prussian Blue Analogue-Templated Nanocomposites for Alkali-Ion Batteries: Progress and Perspective (Review)**
Jian-En Zhou, Yilin Li, Xiaoming Lin & Jiaye Ye
Nano-Micro Lett. 17, 9 (2025). <https://doi.org/10.1007/s40820-024-01517-y>
5. **Ultra-Stable Sodium-Ion Battery Enabled by All-Solid-State Ferroelectric-Engineered Composite Electrolytes (Article)**
Yumei Wang, Zhongting Wang, Xiaoyu Xu, Sam Jin An Oh, Jianguo Sun, Feng Zheng, Xiao Lu, Chaohe Xu, Binggong Yan, Guangsheng Huang & Li Lu
Nano-Micro Lett. 16, 254 (2024). <https://doi.org/10.1007/s40820-024-01474-6>
6. **A Review of Anode Materials for Dual-Ion Batteries (Review)**
Hongzheng Wu, Shenghao Luo, Hubing Wang, Li Li, Yaobing Fang, Fan Zhang, Xuenong Gao, Zhengguo Zhang & Wenhui Yuan
Nano-Micro Lett. 16, 252 (2024). <https://doi.org/10.1007/s40820-024-01470-w>
7. **Impact of Transition Metal Layer Vacancy on the Structure and Performance of P2 Type Layered Sodium Cathode Material (Article)**
Orynbay Zhanadilov, Sourav Baiju, Natalia Voronina, Jun Ho Yu, A.-Yeon Kim, Hun-Gi Jung, Kyuwook Ihm, Olivier Guillon, Payam Kaghazchi & Seung-Taek Myung
Nano-Micro Lett. 16, 239 (2024). <https://doi.org/10.1007/s40820-024-01439-9>
8. **Recent Progress in Improving Rate Performance of Cellulose-Derived Carbon Materials for Sodium-Ion Batteries (Review)**
Fujian Wang, Tianyun Zhang, Tian Zhang, Tianqi He & Fen Ran
Nano-Micro Lett. 16, 148 (2024). <https://doi.org/10.1007/s40820-024-01351-2>
9. **A Molecular-Sieving Interphase Towards Low-Concentrated Aqueous Sodium-Ion Batteries (Article)**

- Tingting Liu, Han Wu, Hao Wang, Yiran Jiao, Xiaofan Du, Jinzhi Wang, Guangying Fu, Yaojian Zhang, Jingwen Zhao & Guanglei Cui
Nano-Micro Lett. 16, 144 (2024). <https://doi.org/10.1007/s40820-024-01340-5>
- 10. Fast and Stable Zinc Anode-Based Electrochromic Displays Enabled by Bimetallically Doped Vanadate and Aqueous Zn²⁺/Na⁺ Hybrid Electrolytes (Article)**
Zhaoyang Song, Bin Wang, Wu Zhang, Qianqian Zhu, Abdulhakem Y. Elezzabi, Linhua Liu, William W. Yu & Haizeng Li
Nano-Micro Lett. 15, 229 (2023). <https://doi.org/10.1007/s40820-023-01209-z>
- 11. Advances in Mn-Based Electrode Materials for Aqueous Sodium-Ion Batteries (Review)**
Changsheng Ding, Zhang Chen, Chuanxiang Cao, Yu Liu & Yanfeng Gao
Nano-Micro Lett. 15, 192 (2023). <https://doi.org/10.1007/s40820-023-01162-x>
- 12. Fundamental Understanding and Optimization Strategies for Dual-Ion Batteries: A Review (Review)**
Chong Chen, Chun-Sing Lee & Yongbing Tang
Nano-Micro Lett. 15, 121 (2023). <https://doi.org/10.1007/s40820-023-01086-6>
- 13. Interface Engineering of Fe₇S₈/FeS₂ Heterostructure in situ Encapsulated into Nitrogen-Doped Carbon Nanotubes for High Power Sodium-Ion Batteries (Article)**
Penghao Song, Jian Yang, Chengyin Wang, Tianyi Wang, Hong Gao, Guoxiu Wang & Jiabao Li
Nano-Micro Lett. 15, 118 (2023). <https://doi.org/10.1007/s40820-023-01082-w>
- 14. Anion Defects Engineering of Ternary Nb-Based Chalcogenide Anodes Toward High-Performance Sodium-Based Dual-Ion Batteries (Article)**
Yangjie Liu, Min Qiu, Xiang Hu, Jun Yuan, Weilu Liao, Liangmei Sheng, Yuhua Chen, Yongmin Wu, Hongbing Zhan & Zhenhai Wen
Nano-Micro Lett. 15, 104 (2023). <https://doi.org/10.1007/s40820-023-01070-0>
- 15. Elastic Buffering Layer on CuS Enabling High-Rate and Long-Life Sodium-Ion Storage (Article)**
Yuanhua Xiao, Feng Yue, Ziqing Wen, Ya Shen, Dangcheng Su, Huazhang Guo, Xianhong Rui, Liming Zhou, Shaoming Fang & Yan Yu
Nano-Micro Lett. 14, 193 (2022). <https://doi.org/10.1007/s40820-022-00924-3>
- 16. Molybdenum Oxynitride Atomic Nanoclusters Bonded in Nanosheets of N-Doped Carbon Hierarchical Microspheres for Efficient Sodium Storage (Article)**
Xiaona Pan, Baojuan Xi, Huibing Lu, Zhengchunyu Zhang, Xuguang An, Jie Liu, Jinkui Feng & Shenglin Xiong
Nano-Micro Lett. 14, 163 (2022). <https://doi.org/10.1007/s40820-022-00893-7>
- 17. Tailoring Nitrogen Terminals on MXene Enables Fast Charging and Stable Cycling Na-Ion Batteries at Low Temperature (Article)**
Yang Xia, Lanfang Que, Fuda Yu, Liang Deng, Zhenjin Liang, Yunshan Jiang, Meiyan Sun, Lei Zhao & Zhenbo Wang
Nano-Micro Lett. 14, 143 (2022). <https://doi.org/10.1007/s40820-022-00885-7>

- 18. Natural Stibnite for Lithium-/Sodium-Ion Batteries: Carbon Dots Evoked High Initial Coulombic Efficiency (Article)**
Yinger Xiang, Laiqiang Xu, Li Yang, Yu Ye, Zhaoifei Ge, Jiae Wu, Wentao Deng, Guoqiang Zou, Hongshuai Hou & Xiaobo Ji
Nano-Micro Lett. 14, 136 (2022). <https://doi.org/10.1007/s40820-022-00873-x>
- 19. Porous Microspheres Comprising CoSe₂ Nanorods Coated with N-Doped Graphitic C and Polydopamine-Derived C as Anodes for Long-Lived Na-Ion Batteries (Article)**
Jae Seob Lee, Rakesh Saroha & Jung Sang Cho
Nano-Micro Lett. 14, 113 (2022). <https://doi.org/10.1007/s40820-022-00855-z>
- 20. Laser-Derived Interfacial Confinement Enables Planar Growth of 2D SnS₂ on Graphene for High-Flux Electron/Ion Bridging in Sodium Storage (Article)**
Xiaosa Xu, Fei Xu, Xiuhai Zhang, Changzhen Qu, Jinbo Zhang, Yuqian Qiu, Rong Zhuang & Hongqiang Wang
Nano-Micro Lett. 14, 91 (2022). <https://doi.org/10.1007/s40820-022-00829-1>
- 21. Ultra-Low-Dose Pre-Metallation Strategy Served for Commercial Metal-Ion Capacitors (Article)**
Zirui Song, Guiyu Zhang, Xinglan Deng, Kangyu Zou, Xuhuan Xiao, Roya Momen, Abouzar Massoudi, Wentao Deng, Jiugang Hu, Hongshuai Hou, Guoqiang Zou & Xiaobo Ji
Nano-Micro Lett. 14, 53 (2022). <https://doi.org/10.1007/s40820-022-00792-x>
- 22. Room-Temperature Assembled MXene-Based Aerogels for High Mass-Loading Sodium-Ion Storage (Article)**
Fei Song, Jian Hu, Guohao Li, Jie Wang, Shuijiao Chen, Xiuqiang Xie, Zhenjun Wu & Nan Zhang
Nano-Micro Lett. 14, 37 (2022). <https://doi.org/10.1007/s40820-021-00781-6>
- 23. Fabricating Na/In/C Composite Anode with Natrophilic Na–In Alloy Enables Superior Na Ion Deposition in the EC/PC Electrolyte (Article)**
Hui Wang, Yan Wu, Ye Wang, Tingting Xu, Dezhi Kong, Yang Jiang, Di Wu, Yongbing Tang, Xinjian Li & Chun-Sing Lee
Nano-Micro Lett. 14, 23 (2022). <https://doi.org/10.1007/s40820-021-00756-7>
- 24. Post-Synthetic and In Situ Vacancy Repairing of Iron Hexacyanoferrate Toward Highly Stable Cathodes for Sodium-Ion Batteries (Article)**
Min Wan, Rui Zeng, Jingtao Meng, Zexiao Cheng, Weilun Chen, Jiayu Peng, Wuxing Zhang & Yunhui Huang
Nano-Micro Lett. 14, 9 (2022). <https://doi.org/10.1007/s40820-021-00742-z>