Supplementary file

Table T1 Comparative table of sodium ion capacities of graphene and its hybrids reported in literature.

Ref. No	Title	Capacity, 1st Cycle	Capacity, 50th Cycle	Current density, mAg^{-1}
1	Nitrogen-Doped Porous Carbon Nanosheets as Low-Cost, High-Performance Anode Material for Sodium-Ion Batteries	1003.2	~230.2	50
2	A Sandwich-Like Hierarchically Porous Carbon/Graphene Composite as a High-Performance Anode Material for Sodium-Ion Batteries	670	400	50
3	Room-temperature sodium-ion batteries: Improving the rate capability of carbon anode materials by templating strategies	730	80	50
4	Ultrafine SnO_2 nanoparticle loading onto reduced graphene oxide as anodes for sodium-ion batteries with superior rate and cycling performances	406.9	330	100
5	Disodium Terephthalate ($Na_2C_8H_4O_4$) as High Performance Anode Material for Low-Cost Room-Temperature Sodium-Ion Battery	520	240	50
6	Reduced graphene oxide with superior cycling stability and rate capability for sodium storage	177 (2nd cycle)	136	40
7	Fe_2O_3 nanocrystals anchored onto graphene nanosheets as the anode material for low-cost sodium-ion batteries	1103	400	100
8	Mesoporous Co_3O_4 sheets/3D graphene networks nanohybrids for high-performance sodium-ion battery anode	685.7	523.5	25
9	Hollow Carbon Nanospheres with Superior Rate Capability for Sodium-Based Batteries	537	200	50
10	Electrochemical Performance of Porous Carbon/Tin Composite Anodes for Sodium-Ion and Lithium-Ion Batteries	730	210 (15 cycles)	20

11	MoS_2-reduced graphene oxide composites via microwave assisted synthesis for sodium ion battery anode with improved capacity and cycling performance	325	305	100
12	High-Performance Sodium-Ion Batteries and Sodium-Ion Pseudocapacitors Based on MoS_2/Graphene Composites	604.3	390	100
13	MoS_2/Graphene Composite Anodes with Enhanced Performance for Sodium-Ion Batteries: The Role of the Two-Dimensional Hetero-interface	1200	702	20
14	Nitrogen-doped open pore channeled graphene facilitating electrochemical performance of TiO_2 nanoparticles as an anode material for sodium ion batteries	405	250	100
15	Sodium Ion Insertion in Hollow Carbon Nanowires for Battery Applications	520	262	200
16	Ultralong Cycle Life Sodium-Ion Battery Anodes Using a Graphene-Templated Carbon Hybrid	530	210	200
17	Nickel Hexacyanoferrate Nanoparticle Electrodes For Aqueous Sodium and Potassium Ion Batteries	60	60	49.8
18	Advances and challenges of sodium ion batteries as post lithium ion batteries	110	70	10
19	Expanded graphite as superior anode for sodium-ion batteries	400	284	20
20	This work	931	447	100

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