

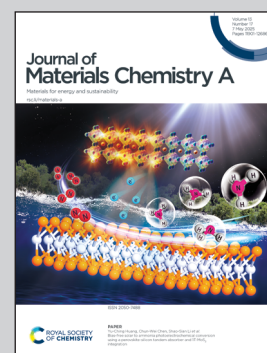
Showcasing research on Bismuth-based sodium-ion negative material by a group of researchers led by Professor Weimin Zhou and Professor Baigang An from Key Laboratory of Energy Materials and Electrochemistry Research Liaoning Province, University of Science and Technology Liaoning, Anshan City, Liaoning Province, China.

Feasible constructions of Bi@CNT materials with extremely high rate and  $\text{Na}^+$  storage performance

Spherical Bi@CNT composites with micro-nano architectures were successfully fabricated. When applied as an anode material for sodium-ion batteries, it delivers exceptional  $\text{Na}^+$  storage capacity ( $462 \text{ mAh g}^{-1}$  at  $0.2 \text{ A g}^{-1}$ ) and superior rate capability ( $50 \text{ A g}^{-1}$  for 5450 cycles). When paired with commercial  $\text{Na}_3\text{V}_2(\text{PO}_4)_3$  cathodes, the full cell achieves a high energy-density ( $192.1 \text{ Wh kg}^{-1}$ ) and power-density ( $4982.4 \text{ W kg}^{-1}$ ), demonstrating the strong potential for vehicular adoption.

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### As featured in:



See Xincheng Miao, Kun Wang, Guiying Xu, Weimin Zhou *et al.*, *J. Mater. Chem. A*, 2025, **13**, 12133.