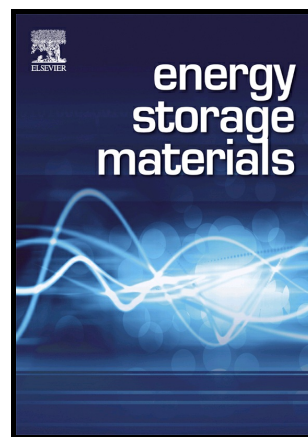


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2D Material as anode for Sodium Ion Batteries: Recent Progress and Perspectives

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Abstract

Sodium ion batteries (NIBs) have attracted extensive attention recently and been regarded as a promising alternative to lithium ion batteries (LIBs) meeting the demands of large-scale electrical energy storage systems. Both LIBs and NIBs show similar working principal that is based on the “rocking-chair” mechanism. However, the electrode materials match well with lithium ion batteries are not suitable for the NIBs system due to the large diameter of Na⁺ (0.98 Å) than that of Li⁺ (0.69 Å). Two-dimensional (2D) materials have gained great progress in recent years served as anode materials for NIBs with unique 2D layered structure, infinite planar lengths and much exposed active sites, which confirms to be a promising alternative anode

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