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Carbon Nanotubes and Graphene for Flexible Electrochemical Energy Storage: from Materials to Devices

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Abstract

Flexible electrochemical energy storage (FEES) devices have received great attention as a promising power source for the emerging field of flexible and wearable electronic devices. Carbon nanotubes (CNTs) and graphene have many excellent properties that make them ideally suited for use in FEES devices. A brief definition of FEES devices is provided, followed by a detailed overview of various structural models for achieving different FEES devices. The latest research developments on the use of CNTs and graphene in FEES devices are summarized. Finally, future prospects and important research directions in the areas of CNT- and graphene-based flexible electrode synthesis and device integration are discussed.

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