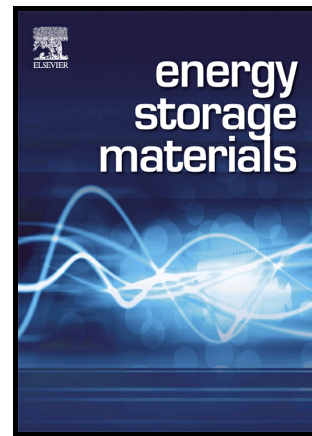


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Characteristics Tuning of Graphene-Oxide-Based-Graphene to Various End-Uses

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Abstract

Information on the possible correlations between the characteristics of graphene itself or the performance of graphene-based devices and the conditions of its preparation or fabrication is scarce. This study examined how the characteristics and performance of graphene in applications, such as batteries and supercapacitors, conductive electrodes, and gas barrier films, change according to the conditions of the adopted process focusing mainly on graphene derived from GO. The overall aim was to determine the possible relationships between the characteristics and the conditions of the oxidation and reduction processes and the performance of devices based on the graphene prepared. Through a deeper understanding of the chemistry involved in the oxidation and reduction processes, possible routes along

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