Mini Review

Two-dimensional Material as Anode for Lithium Ion Batteries: Recent Progress

Guang Huang^{1*}, Bin Cai^{2*}, Changfa Zhan¹ and Peng Sun¹

¹ School of Conservation, Shanghai Institute of Visual Art, Songjiang 201620, Shanghai, P. R. China

² School of Chemistry and Chemical Engineering, Zhoukou Normal University, Zhoukou 466001, P. R. China

*E-mail: Guang Huang: guanghuang@aliyun.com Bin Cai: caib@actinide.org

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Compared with traditional bulk materials, two-dimensional nanomaterials exhibit peculiar physical and chemical properties. At present, two-dimensional nanomaterials have great application potential in the fields of medicine, aviation, energy and electronic information. To address both the energy and power demands of secondary LIBs for future energy storage applications, the development of innovative kinds of electrodes is required. In this review, we summarize the current development progress of two-dimensional materials used as anodes in lithium-ion batteries. Specifically, graphene, two-dimensional phosphorene, MoS₂ and MXene are highlighted.

Keywords: Two-dimensional material; MXene; Lithium ion batteries; MoS₂; Two-dimensional phosphorene; Graphene

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