

综 述

锂离子电池正极材料 LiFePO_4 的研究进展

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摘要: 概述了锂离子电池正极材料 LiFePO_4 的两种主要合成方法: 高温固相法和水热法; 描述了其晶体结构及充放电和循环性能; 介绍了碳对于提高材料导电性以及使晶粒变小等方面的作用; 介绍了 LiFePO_4 掺杂 Mn、Ti、Zr 改性方面的研究。

关键词: 锂离子电池; 正极材料; LiFePO_4

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Research progress in cathode material LiFePO_4 of Li-ion battery

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Abstract: Lithium iron phosphate (LiFePO_4) was a cathode material of Li-ion battery. Its two synthetic methods of solid-reaction at high temperature and hydrothermal method were introduced. Its crystal structure, charge and discharge performance and cycling behavior were also presented. The effect of the conductive material, carbon black on the conductivity and the particle size of LiFePO_4 and the researches on doping were chiefly introduced.

Key words: Li-ion battery; cathode material; lithium iron phosphates

电池杂志

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