

锂离子电池硅基负极材料研究进展

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摘要: 负极材料是近年来锂离子电池的研究重点之一, 硅材料及含硅材料由于具有比容量大等优点, 引起了关注。主要介绍了近来硅及含硅材料作为锂离子电池负极材料的研究现状, 包括硅单质、硅的氧化物以及硅的金属和其他非金属化合物; 分析了硅材料作为锂离子电池负极材料存在的问题; 讨论了硅材料作为锂离子电池负极材料的研究前景。

关键词: 锂离子电池; 负极材料; 硅基

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Research progress in silicon based anode materials for Li-ion batteries

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Abstract: Anode materials for Li-ion batteries had been studied worldwide in recent years. Silicon and silicic compounds had being studied as anode materials due to their high capacity. However, the cyclic performance of silicon based materials need to be improved. Research progress in the silicon based anode materials for Li-ion batteries were reviewed; the problems and prospects for this materials were also discussed.

Key words: Li-ion batteries; anode materials; silicon based

电池杂志

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