Short Communication

Sulfur/Sisal Fiber Carbons Composites as Anode Materials for Lithium-ion Batteries

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The sulfur/sisal fiber carbons composites were prepared by pyrolysis and hydrothermal method. The structure of the sulfur/SFCs composites were characterized by X-ray diffraction and scanning electron microscopy, and the electrochemical performance of the sulfur/SFCs composites was tested by constant current charge-discharge tests. The initial discharge specific capacity of the sulfur/SFCs composites is 1223 mAhg⁻¹ and the reversible capacity of the sulfur/SFCs composites is about 400mAhg⁻¹. The charge-discharge efficiency closed to 90% after the first cycle.

Keywords: Sulfur, sisal fiber carbons, hydrothermal, anode materials

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