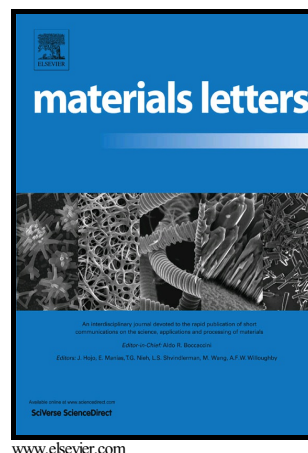


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Facile synthesis of hierarchical mesoporous NiCo_2O_4 nanoflowers with large specific surface area for high-performance supercapacitors

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Facile synthesis of hierarchical mesoporous NiCo₂O₄ nanoflowers with large specific surface area for high-performance supercapacitors

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Abstract

Hierarchical mesoporous NiCo₂O₄ nanoflowers with large specific surface area have been prepared through a simple, low cost and green method. The electrochemical performances of the NiCo₂O₄ electrode materials have been investigated, and the results show that NiCo₂O₄ electrode materials exhibited high specific capacitances of 1635 F/g at 2 A/g, low internal resistance $\sim 0.24 \Omega$, and remarkable long-term cycling stability, demonstrating its excellent electrochemical performances for supercapacitors. Such enhanced electrochemical performances and the facile synthetic method of NiCo₂O₄ electrode materials can offer great promise in next generation supercapacitor applications.

Key words: porous materials; structural; energy storage and conversion; NiCo₂O₄; large specific surface area; high-performance

1.1 Introduction

Nowadays, supercapacitors, also known as electrochemical capacitors (ECs), are considered as a very attractive candidate for next-generation efficient energy

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