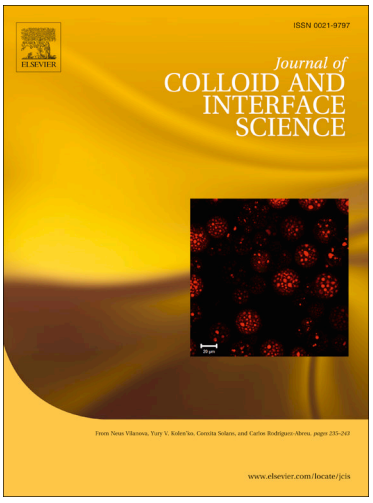

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Preparation and electrochemical properties of mesoporous $NiCo_2O_4$ double-hemisphere used as anode for lithium-ion battery

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Abstract $NiCo_2O_4$ is a potential anode material for lithium ion battery due to its many advantages, such as high theoretical capacitance, low cost, and good electrochemical activity. In this study, mesoporous $NiCo_2O_4$ double-hemisphere (3~5 μm) with high surface area (270.68 $m^2 \cdot g^{-1}$) and excellent electrochemical performances has been synthesized through a facile precipitation method followed with thermal treatment process. The prepared $NiCo_2O_4$ is pure phase and can be indexed as a face-centered-cubic with a typical spinel structure. Electrochemical tests show the prepared material has high specific capacities (910 $mAh \cdot g^{-1}$ at 100 $mA \cdot g^{-1}$), excellent