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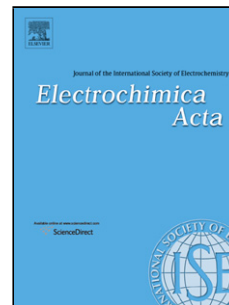
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# Carbon-Coated MnMoO<sub>4</sub> Nanorod for High-Performance Lithium-Ion Batteries

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Graphical abstract

## Abstract

Molybdenum oxysalt is a promising electrode candidate for lithium ion battery due to its flexible composition structure and large Li-storage capacity. An unprecedented MnMoO<sub>4</sub> with a carbon overlayer is synthesized by room-temperature reaction of manganese salt and molybdate, followed hydrothermal treatment with glucose. The rod-like MnMoO<sub>4</sub>@C exhibits excellent electrochemical performance as an anode for rechargeable lithium ion batteries. A large reversible capacity of 1050 mAh g<sup>-1</sup> can be retained after 200 cycles at a current density of 100 mA g<sup>-1</sup>. The improved lithium storage performance is attributed to the presence of electrically-conductive carbon coating, which can improve the lithium transportation and alleviate the large volume change of ternary metal oxide during repetitive cycling.

**Keywords:** MnMoO<sub>4</sub>, nanorod, carbon coating, anode, lithium ion batteries

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