

# 层状锂锰氧化物制备及性能改进

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摘要: 锂锰氧化物作为锂离子电池的正极材料, 具有很好的应用前景, 特别是层状锂锰氧化物, 理论容量高达 285 mAh/g。着重论述了层状锂锰氧化物的制备方法, 如高温固相反应法、离子交换法、乳胶干燥法等, 讨论了相应的电化学性能、结构特征、目前存在的问题。

关键词: 理论容量; 锂离子电池; 正极材料; 层状锂锰氧化物

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## Preparation and performance improvement of layered lithium manganese oxide

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**Abstract:** Lithium manganese oxide showed more promising prospects for the positive electrode materials of Li-ion battery. Layered lithium manganese oxide exhibited high theoretical capacity of 285 mAh/g. The methods for preparing layered lithium manganese dioxide such as high-temperature solid reaction method, ion-exchange method, and emulsion-drying method were reviewed. The related electrochemical properties, structure and existing problems were discussed.

**Key words:** theoretical capacity; Li-ion battery; positive electrode materials; layered lithium manganese oxide