

Synthesis of Mesoporous Carbon Microspheres for Li-ion Battery Application.

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The demand for energy storage via lithium ion battery is growing because of the development of various mobile devices and electric vehicles. One of the most important characteristic of LIB is its energy density for these applications. One approach to increase the energy density of LIB could be high-density coating of electrode materials on current collectors. Hence, the morphology of active material is important in this regard. In this study, mesoporous carbon microspheres(MCM) of order of one μm size were synthesized and used as synthesized and as support for MnO_x nanocrystals for lithium ion battery anodes. The electrochemical properties of as synthesized MCM and MnO_x/MCM were investigated with galvanostatic cycling and cyclic voltammetry tests and were compared with those of a commercial graphite anode.