

Characterization of Li_2MSiO_4 Compounds for Cathodes in Li Based Batteries

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This paper will present the characterization results of many cathode materials based on the Li_2MSiO_4 system. The microstructure of these materials will be performed using high resolution electron microscopy and the lithium storage capacity as well. High resolution scanning electron microscopy and high resolution transmission electron microscopy with EDS and electron diffraction will be performed to characterize the morphology, the chemical composition and the atomic structure of these materials. Electron energy loss spectroscopy in the TEM will be used to determine the atomic structure of these compounds with simulations using density functional theory.