

Study of zone-center phonons in Lithium Manganese Oxide

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The zone-center phonons of spinel structured lithium manganese oxide have been investigated by applying de Launey angular force constant model. The calculation is extended to lithium extracted phases $\text{Li}_{0.5}\text{Mn}_2\text{O}_4$ also. The lattice phonons thus obtained are compared with available experimental results. The lithiation effects on phonon modes are also discussed.