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Ab Initio No Core Shell Model Calculations for Li Isotopes¹ ROBERT COCKRELL, PIETER MARIS, JAMES VARY, Iowa State University — We perform no-core full configuration calculations for several Lithium isotopes with a realistic NN interaction, JISP16. We calculate binding energies for various states of interest as well as dipole and quadrupole moments and select M1 and E2 transitions. The One Body Density Matrix is used to determine the densities and shapes of the ground state and various excited states of these Lithium isotopes.

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