

Total Energy of Li Atom

Experimental

					$\Delta E(\text{ev})$
Li	→	Li⁺	+	e	5.390
Li⁺	→	Li⁺²	+	e	75.6193
Li⁺²	→	Li⁺³	+	e	122.419
Li	→	Li⁺³	+	3e	203.428

using 1 au = 27.212 ev

Total Energy of Li atom = -7.476 au

Hartree-Fock Energy of Li Atom = -7.433 au

Difference (correlation energy) = 0.043 au or 1.17 ev