

Energy Calculation for Excited Lithium Atom in Position Space

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Abstract : The energy expectation value $\langle E \rangle$ for Li-like ions systems (Li, Be⁺ and Be²⁺) has been calculated and examined within the ground state $(1s2s\alpha)^2 S$ and the excited state $(1s3s\alpha)^2 S$ in position space. The partitioning technique of Hartree-Fock (H-F) has been used for existing wavefunctions.

Keywords : energy expectation value, atomic systems, ground and excited states, Hartree-Fock approximation

Conference Title : ICAPSA 2014 : International Conference on Atomic Physics, Systems and Applications

Conference Location : Stockholm, Sweden

Conference Dates : July 14-15, 2014