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Energy Calculation for Excited Lithium Atom in Position Space

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Abstract : The energy expectation value <E> for Li-like ions systems (Li, Be+ and Be2+) hasbeen calculated and examined within the ground state (1s2sα)^2 S and the excited state (1s3sα)^2 S in position space. The partitioning technique of Hartree-Fock (H-F) has been used for existing wavefnctions.

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