

Ground-State Energy Characteristics of Heliumoid Meson-Nuclear Systems

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The ground-state energy characteristics and mass correction and mass polarization effects of heliumoid meson-nuclear systems were analyzed. Isomeson series with nuclear charge from $Z=2$ to $Z=118$ are investigated. A comparative examination of the properties and characteristics of the isomeson series and corresponding isoelectronic series was made. In this study were used methods and programs, developed by the authors, for high-accuracy determination of the energy characteristics of helium-like electron-nuclear systems. Given the results for such systems the application of these methods for meson-nuclear systems is also expected to produce high-accuracy results.