

Candidates for long-lived high-K ground states and isomers in superheavy nuclei

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By selecting the lowest lying of more than 2000 excitations we found the candidates for high-K ground states / K-isomers in Md - Rg nuclei.

Energies of nuclear configurations are calculated within the microscopic-macroscopic model with the Woods-Saxon potential in two scenarios: via blocking or/and using quasi-particle BCS method. Optimal deformations for a fixed configuration as well as for ground states are found by the four-dimensional energy minimization over deformations. Obtained excitation energies are discussed and compared with available experimental data.

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