

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

lundi 30 janvier 2023 15:30 (20 minutes)

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.

Co-auteurs: SKALSKI, Janusz (Centre for Nuclear Research); JACHIMOWICZ, P. (Institute of Physics, University of Zielona Góra)

Orateur: KOWAL, Michal (NCBJ Warsaw, Poland)

Classification de Session: Session 3: Spectroscopy of heavy and super-heavy nuclei