The 2nd International African Symposium on Exotic Nuclei IASEN2024



Contribution ID: 12

Type: Oral

$\alpha\text{-decays}$ of even-even actinides and superheavy nuclei to the first rotational 2⁺ states of daughter nuclei

The alpha-decays of even-even isotopes of actinides and superheavy nuclei to the ground 0^+ and first 2^+ states of their daughter nuclei are studied. The conditions for the maximum intensity of alpha-decay from the ground state to the lowest 2^+ state are analyzed in detail based on existing experimental data. For the alpha-decays of heavy nuclei up to Og, the half-lives and population probabilities of the 0^+ and 2^+ states of the daughter nucleus are described and predicted employing the preformed cluster model.

Notes

Primary author: Prof. ANTONENKO, Nikolai (BLTP, JINR)

Presenter: Prof. ANTONENKO, Nikolai (BLTP, JINR)