

The 0^+ isomers and shape coexistence (remote)

vendredi 3 février 2023 09:50 (20 minutes)

We compare the data on the lowest 0^+ isomers in the half-life range greater than 10 ns and those in less than 1 ns [1-3]. In comparing the two group of isomers from even-even nuclei, we come across many similarities. This suggests that the 0^+ states having half-life less than 1 ns have similar structure. The relationship of these states to shape coexistence will also be highlighted. We also consider couple of examples, which point to specific symmetries [4].

References:

1. A.K. Jain, B. Maheshwari, A. Goel, Nuclear Isomers-A Primer, Springer Nature, 2021.
2. K. Heyde and J.L. Wood, Rev. Mod. Phys. 83, 1655 (2011).
3. Swati, B. Maheshwari, Balraj Singh, Y. Sun, A. Goel, and A. K. Jain, Atlas of Isomers -2022, to be published.
4. Aagrah Agnihotri and A.K. Jain, B.Tech. Dissertation, 2022.

Orateur: JAIN, Ashok Kumar (Indian Institute of Technology Roorkee)

Classification de Session: Session 15: Isomers