Shapes and Symmetries in Nuclei: from Experiment to Theory (SSNET'22 Conference)

ID de Contribution: 139

Type: Non spécifié

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