

Shape isomers of alpha-like nuclei

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Abstract

We investigated the shape isomers of $N=Z$ =even nuclei [1], in terms of the multiconfigurational dynamical symmetry (MUSY) [2,3]. In particular the stable shapes were determined from the study of the self-consistency of $U(3)$ symmetry (i.e. quadrupole shape) [4], and their possible binary cluster configurations (populating reaction channels) were determined. Furthermore, their energy spectra (obtained from energy-minima calculations) could be reproduced with a simple dynamically symmetric Hamiltonian.

References

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- [4] J. Cseh, G. Riczu, J. Darai, *Phys. Lett. B* **795** (2019) 160.