

## Isomeric states around 208Pb

### Contenu

208Pb is the heaviest known doubly-magic nucleus. Its neighbourhood is characterised by the presence of seniority isomers based on the high  $j$  orbitals  $\nu g_{9/2}$  ( $N > 126$ )  $\pi h_{9/2}$  ( $Z > 82$ ) and  $\pi h_{11/2}$  ( $Z < 80$ ).

Deep-inelastic reactions provide large statistics data sets for nuclei close to 208Pb (e.g. [1,2]). In contrast, the most neutron-rich nuclei studied so far in the region were populated in fragmentation reactions (see e.g. [3,4,5,6]). This latter method relies on the existence of isomeric states in order to separate the nuclei of interest. The status of our understanding of the nuclear structure, focused on the neutron-rich region and on isomeric states, will be presented.

[1] R. Broda et al., Phys. Rev. C 98, 024324 (2018).

[2] R. Broda et al., Phys. Rev. C 95, 064308 (2017).

[3] A. Gottardo et al., Phys. Rev. Lett. 109, 162502 (2012).

[4] J-J. Valiente-Dobon et al., Phys. Lett. B 816, 136183 (2021).

[5] S.J. Steer et al., Phys. Rev. C 84, 044313 (2011).

[6] A.I. Morales et al., Phys. Rev. Lett. 113, 022702 (2014).

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### Commentaires:

invited talk in the isomer session

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