

# Frontiers in Gamma Ray Spectroscopy

## FIG18

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### Seniority and Generalized Seniority: How far can we stretch these quantum numbers?

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**Content :**

We present an overview of the seniority and generalized seniority approaches and the various experimental signatures of their validity. We also discuss how the seniority isomers arise and under what conditions. We test the validity of the seniority quantum number with increasing  $j$  and in the presence of many  $j$ -orbitals. We find that the generalized seniority quantum number retains its applicability, although in an approximate manner, to angular momenta much higher than expected.

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