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Recent results within the sd and fp shells

Content

A brief overview of recent results from the FRIB Decay Station initiator (FDSi) and CLARION2-TRINITY on *sd* and *fp* shell nuclei will be presented. For the FDSi, an emphasis will be placed on new gamma-decaying isomers discovered between $N=20$ and 40. These isomers provide highly constrained structure possibilities for each region and important landmarks for future exotic beam studies. Implications for ^{60}Ca and the $N=40$ gap size will be discussed. For CLARION2-TRINITY, an emphasis will be placed on recent single-step Coulomb excitation results of the Ti isotopes, including the critical connection between electric quadrupole strengths, $\langle Q^2 \rangle$, and the charge radii of atomic nuclei.

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