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Study of the N=50 major shell effect towards 78Ni : contribution from beta-decay studies at IPN Orsay

Monday 23 May 2011 16:00 (20 minutes)

The PARRNe ISOL device has been operating at IPN Orsay since 10 years. Originally conceived as a test bench for R&D studies in the framework of SPIRAL2, the performance of the setup has proven suitable to undertake a physics research program on the evolution of N=50 towards 78Ni by beta-decay studies. During the past decade, several experiments were realized using either the Tandem as a deuteron driver or ALTO as an electron driver. Physics results from these experiments will be presented as well as the way they connect to other results obtained elsewhere (and for other observables) in this mass region. Most of the data obtained were largely pioneering at their time and a parallel effort on the theoretical side had to be undertaken in order to provide a correct description and global understanding.

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