Evolution of collective structures in the heavy transitional nuclei above N=82

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The development of correlated behavior in atomic nuclei, generated by the interactions between their constituent nucleons, is an issue of central importance in nuclear physics. Notably, the evolution of collectivity in nuclei as a function of the nucleon number is reflected in the spectrum of low-lying excited states, which vary according to the available valence space. The longest chains where excited states can be identified span the $82 \lesssim N < 126$ neutron shell. The advent of selective tagging techniques has allowed the excited states in many heavy neutron-deficient nuclei above the $N = 82$ shell gap to be measured for the first time. This paper surveys the results of recent tagging experiments that reveal the interplay between collective behaviour and the underlying single-particle configurations in the transitional Ta, W and Re nuclides, which is complementary to the pioneering work performed by George Dracoulis and the ANU group.