

## Lifetime measurements of neutron-deficient odd-A W and Os nuclei

### Contenu

We have carried out a series of lifetime measurements of excited states in the vicinity of  $^{168}\text{Os}$ , where a peculiar feature of  $B(E2; 4^+ \rightarrow 2^+ +)/B(E2; 2^+ \rightarrow 0^+) < 1$  has been observed [1]. Subsequent measurements have been confirmed that this feature can be found in W, Os and Pt nucleus close to  $N = 92$ . To date, no sound explanation based on contemporary nuclear models have been found. The transition energies of the ground-state bands suggests that these bands would be collective, and perhaps triaxial. However, the transition probability systematics disagree with the predictions of available collective nuclear models.

In  $^{172}\text{Pt}$ , the phase transition has been suggested to be responsible of this feature [2]. Our latest study of  $^{163}\text{W}$  [3] has elaborated the role of the odd nucleon and geometric features in description of decrease of collectivity as a function of spin.

The presented Recoil Distance Doppler-Shift measurements have been carried out at University of Jyväskylä using the JUROGAM  $\gamma$ -ray spectrometer. The results of the experiments and their possible interpretations will be discussed.

[1] T. Grahn et al., Phys. Rev. C 94, 044327 (2016)

[2] B. Cederwall et al., Phys. Rev. Lett. 121, 022502 (2018)

[3] M. C. Lewis et al., Phys. Lett. B, 798, 134998 (2019)

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