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## SHAPE COEXISTENCE IN $^{70}\text{Kr}$

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Nuclei in the vicinity of the  $N=Z$  line around  $A=70$  exhibit very rapid shape changes due to the isospin symmetry breaking related to charge effects. This leads to differences in excitation energy between analogue states in isobaric multiplets. In this study we probed Coulomb energy differences in the  $T_z = -1$  nucleus  $^{70}\text{Kr}$  with respect to its mirror  $^{70}\text{Se}$ . In  $^{70}\text{Kr}$ , no spectroscopic information is available so far. We have performed a Coulomb excitation experiment of  $^{70}\text{Kr}$  and  $^{72}\text{Kr}$  isotopes to measure the  $B(E2; 0^+ \rightarrow 2^+)$  value. The experiment was performed at the Radioactive Isotope Beam Factory (RIBF). A  $^{78}\text{Kr}$  primary beam at 345 MeV/nucleon was impinging on a  $^4\text{Be}$  target. The BigRIPS fragment separator was used in order to deliver the  $^{70}\text{Kr}$  and  $^{72}\text{Kr}$  isotopes at around 150 MeV/nucleon to the secondary target for Coulomb excitation and inelastic scattering measurements. The emitted gamma-rays of the reaction were detected by the DALI2 array and recoils were identified by the ZeroDegree Spectrometer. Results will allow to make a direct comparison with the mirror nucleus  $^{70}\text{Se}$  and will give an important new information about shape co-existence across the  $N=Z$  line.