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Fission hindrance of high-K isomers in transfermium nuclei

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To date, the fission branch of only a handful of identified high-K isomers has been measured or a lower limit inferred and, except in the cases of ^{250}No [1-3] and ^{254}Rf [4], all partial fission half-lives or their lower limits are reported to be shorter than the partial fission half-life of the corresponding ground state [5]. This is at odds with estimates of expected fission hindrances (defined as the ratio of the isomer and ground state partial fission half lives) due to the specialisation energy and reduced pairing fields associated with high-K states [6] and clearly calls for a revision of the available data. We report here on new measurements of the fission hindrances of high-K isomers in ^{250,252,254}No using the GABRIELA detector array [7,8] at the focal plane of the recoil separator SHELS [9].

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