Abstract Submitted for the DNP07 Meeting of The American Physical Society

Deviations from the Alaga rules in deformed Hf nuclei E.A. MC-CUTCHAN, R.F. CASTEN, V. WERNER, B. SHORAKA, E. WILLIAMS, Yale University — Branching ratios from excited K = 0.2 states in axially symmetric deformed nuclei can usually be described, in first order, using the Alaga rules. Some well-deformed nuclei, however, show significant deviations from the Alaga rules particulary when the first excited K = 0 and 2 excitations are similar in energy. To further investigate this behavior, an experiment was performed to measure intensities from excited K = 0.2 states in ¹⁷²Hf. Low-lying non-yrast states of ¹⁷²Hf were populated in β decay and studied through off-beam γ ray spectroscopy. The ¹⁷²Ta parent nuclei were produced through the ¹⁶⁵Ho(¹²C, 5n) reaction. Results will be presented and compared to the systematics of the region. Work supported by U.S. DOE Grant No. DE-FG02-91ER-40609.

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Date submitted: 03 Jul 2007

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