

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Decay pathways and rotational properties of strongly deformed bands in ^{168}Hf W.C. MA, R.B. YADAV, H. AMRO, P.G. VARMETTE, Y.C. ZHANG, Mississippi State Univ, G.B. HAGEMANN, B. HERSKIND, K.A. SCHMIDT, G. SLETTEN, NBI, M. CARPENTER, R.V.F. JANSSENS, T.L. KHOO, T. LAURITSEN, C.J. LISTER, ANL, A. BRACCO, S. FRATTINI, B. MILLION, Univ. di Milano, Italy, J. DOMSCHEIT, H. HUBEL, Univ. of Bonn, Germany, D.J. HARTLEY, US Naval Academy, L.L. RIEDINGER, Univ. of Tennessee, S.W. ODEGARD, S. SIEM, Univ. of Oslo, Norway — Three strongly deformed bands were observed previously in ^{168}Hf [1] and proposed as candidates of triaxial strongly deformed (TSD) bands. However, none of the bands was linked to known levels. Without the knowledge of level spins, parities, and excitation energies, it was difficult to gain a clear understanding of these bands. We have performed an extensive spectroscopic analysis for the γ -ray coincidence data obtained from a Gammasphere experiment at ANL. The decay pathways of TSD2 band to low-spin structures have been established, and the approximate spin values of levels in TSD1 band obtained. A detailed comparison of experimental properties of these bands and theoretical calculations, as well as the intrinsic configurations of the bands will be discussed. Work supported by U.S. DOE grant DE-FG02-95ER40939.
[1] H. Amro et al., Physics Letters B 506 (2001) 39-44.

Wenchao Ma
Mississippi State University

Date submitted: 04 Jan 2008

Electronic form version 1.4