

Abstract Submitted  
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**Nuclear Structure in  $^{78}\text{Ge}$** <sup>1</sup> ANNE M. FORNEY, W.B. WALTERS, J. SETHI, C.J. CHIARA<sup>2</sup>, J. HARKER, UMD College Park, R.V.F. JANSSENS, S. ZHU, M. CARPENTER, M. ALCORTA<sup>3</sup>, G. GÜRDAL, C.R. HOFFMAN, B.P. KAY, F.G. KONDEV, T. LAURISTEN, C.J. LISTER<sup>4</sup>, E.A. MCCUTCHAN<sup>5</sup>, A.M. ROGERS<sup>4</sup>, D. SEWERYNIAK, ANL — Owing to the importance of the structure of  $^{76}\text{Ge}$  in interpreting double  $\beta$  decay studies, the structures of adjacent nuclei have been of considerable interest. Recently reported features for the structures of  $^{72,74,76}\text{Ge}$  indicate both shape coexistence and triaxiality. New data for the excited states of  $^{78}\text{Ge}$  will be reported arising from Gammasphere studies of multinucleon transfer reactions between a  $^{76}\text{Ge}$  beam and thick heavy targets at the ATLAS facility at Argonne National Laboratory. The previously known yrast band is extended to higher spins, candidate levels for a triaxial sequence have been observed, and the associated staggering determined. The staggering in  $^{78}\text{Ge}$  found in this work is not in agreement with theoretical work<sup>6</sup>. Candidates for negative-parity states and seniority-four states will be discussed.

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<sup>2</sup>U.S. Army Research Laboratory, Adelphi, Maryland 20783, USA

<sup>3</sup>TRIUMF, Vancouver, British Columbia V6T2A3, Canada

<sup>4</sup>University of Massachusetts Lowell, Lowell, Massachusetts 01854, USA

<sup>5</sup>Brookhaven National Laboratory, Upton, New York 11973, USA

<sup>6</sup>J.J Sun *et al.*, *Phys. Lett B* **734**, 308 (2014).

Anne Marie Forney  
University of Maryland College Park

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