

Abstract Submitted  
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**New band structures in neutron-rich odd- $A$  Ge isotopes<sup>1</sup>** C.J. CHIARA, N. SHARP, I. STEFANESCU, J.R. STONE, W.B. WALTERS, U. of Maryland, M.P. CARPENTER, G. GÜRDAL, C.R. HOFFMAN, R.V.F. JANSSENS, B.P. KAY, F.G. KONDEV, T. LAURITSEN, C.J. LISTER, E.A. MCCUTCHAN, D. SEWERYNIAK, S. ZHU, ANL, R. BRODA, B. FORNAL, W. KRÓLAS, T. PAWLAT, J. WRZESIŃSKI, Krakow, N.J. STONE, U. of Tennessee — Neutron-rich Ge isotopes were studied in a campaign of experiments with the Gammasphere Ge-detector array at ANL. Beams of  $^{76}\text{Ge}$  were incident upon thick  $^{238}\text{U}$ ,  $^{208}\text{Pb}$ , and  $^{198}\text{Pt}$  targets in deep-inelastic reactions, populating excited states up to moderate spins. No previous high-spin work has been done on  $^{75,77}\text{Ge}$ , with most existing data coming from  $\beta$  decay, neutron capture, or transfer reactions. The level schemes for both nuclides have been extended, including the observation of strongly-coupled band structures. In some cases, spin and parity assignments are strengthened by angular-correlation measurements. These isotopes straddle the neutrinoless double  $\beta$ -decay candidate  $^{76}\text{Ge}$ ; additional data on the levels in these systems can provide tests of shell-model calculations for nuclei in this region involving the  $p_{3/2}p_{1/2}f_{5/2}g_{9/2}$  proton and neutron subspace.

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