

Abstract Submitted
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γ **Vibrational Band in ^{70}Ge** ¹ S.I. MORROW, Houghton College, R.A. HARING-KAYE, R.M. ELDER, Ohio Wesleyan University, S.L. TABOR, V. TRIPATHI, P.C. BENDER, Florida State University, N.H. MEDINA, P. ALLEGRO, University of São Paulo, J. DÖRING, Bundesamt für Strahlenschutz — Excited states in ^{70}Ge were populated by the $^{55}\text{Mn}(^{18}\text{O},p2n)$ fusion-evaporation reaction at 50 MeV performed at Florida State University. Prompt γ - γ coincidences were measured with a Compton-suppressed Ge array consisting of three Clover detectors and seven single-crystal detectors. Examination of the resulting coincidence relations and relative intensity measurements led to an enhanced ^{70}Ge level scheme, including an extension of the proposed γ vibrational band by four new states. Interpretation of the γ band within the context of the staggering parameter $S(I)$ suggests a γ -soft structure, similar to other light Ge isotopes. Total Routhian Surface calculations for the ground-state band are consistent with a picture of γ softness at low spin.

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