Abstract Submitted
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New Levels in ^{157}Pm[1] J. RANGER, Vanderbilt University, Furman University, E.H. WANG, J.H. HAMILTON, A.V. RAMAYYA, J.K. HWANG, Vanderbilt University, A. NAVIN, M. REJMUND, A. LEMASSON, S. BHATTACHARYYA, GANIL, Y.X. LUO, J.O. RASMUSSEN, LBNL, S.J. ZHU, Tsinghua University, G.M. TER-AKOPIAN, YU. OGANESSIAN, JINR — Gamma rays in coincidence with isotopically-identified fission fragments using VAMOS++ and EXOGAM, produced using ^{238}U on a ^{9}Be target, at an energy near the Coulomb barrier have been observed, as reported by Navin *et al.*. In the present work, we have combined data from the in-beam mass- and Z-gated spectra with the γ-γ-γ-γ data from ^{252}Cf (SF) to assign transitions and levels in ^{157}Pm. In contrast to Hwang (2009), the transitions previously assigned to ^{156}Pm are all seen in the M-Z gated spectra of ^{157}Pm and are not seen in the M-Z gated spectra of ^{156}Pm. The new expanded levels of ^{157}Pm are remarkably similar to those of the levels in ^{155}Pm, which have been assigned as a well-deformed rotational band built on π 5/2 [532], as in ^{155}Pm. New level schemes in ^{147}Ce are also verified and elaborated upon.

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