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New Analysis of Levels in ^{151}Pr E.H. WANG, J.H. HAMILTON, A.V. RAMAYYA, J.K. HWANG, Vanderbilt University, A. NAVIN, M. REJMUND, A. LEMASSON, S. BHATTACHARYYA, GANIL, S.H. LIU, ORAU, N.T. BREWER, University of Tennessee, Y.X. LUO, J.O. RASMUSSEN, LBNL, S.J. ZHU, Tsinghua University, G.M. TER-AKOPIAN, YU. OGANESSIAN, JINR — The previous reported levels and assignments to ^{151,152}Pr [1,2] have recently been called into question [3] about the mass assignment of the reported bands [1,2]. Recently prompt 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 around the Coulomb barrier have been reported. [4]. We have combined the $\gamma-\gamma-\gamma-\gamma$ data from ^{252}Cf (SF) and those from the in beam mass- and Z-gated spectra to assign transitions and levels in ^{151}Pr. In contrast to [3], the transitions previously assigned to ^{151}Pr are all seen in the M-Z gated spectra. In addition, all the transitions in both bands previously assigned to ^{152}Pr [2] are also seen in the ^{151}Pr M-Z gated spectra but not in the ^{152}Pr M-Z gated spectrum. Hence all four bands are now assigned to ^{151}Pr. The new level scheme in ^{151}Pr will be presented.

[1] J. K. Hwang *et al.*, Phys. Rev. C **82**, 034308 (2010).
[2] S. H. Liu *et al.*, Phys. Rev. C **84**, 044303 (2011).
[3] T. Malkiewicz *et al.*, Phys. Rev. C **85**, 044314 (2012). [4] A. Navin et al. (submitted); A. Navin, 5th Int. Conf. on *Fission and properties of neutron-rich nuclei, Sanibel 2012*, World Scientific, in press.

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