Abstract Submitted
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High-spin states in the N=50 nucleus ^{85}Br N. FOTIADES, LANL, J.A. CIZEWSKI, Rutgers, R. KRÜCKEN, T.U. München, R.M. CLARK, P. FALLON, I.Y. LEE, A.O. MACCHIAVELLI, LBNL, J.A. BECKER, L.A. BERNSTEIN, D.P. MCNABB, W. YOUNES, LLNL — High-spin states in ^{85}Br have been studied following the fission of the ^{226}Th compound nucleus formed in a fusion-evaporation reaction. The Gammasphere array was used to detect γ-ray coincidences. The level scheme has been extended up to $\sim$5 MeV excitation energy. Two states at $\sim$2 MeV excitation energy are candidates for the $9/2^+$ state originating from the odd proton occupying the $g_{9/2}$ orbital. The experimental results are compared with predictions of shell model calculations. The results are compared with concurrent studies of ^{85}Br as a product of deep-inelastic processes in heavy-ion multi-nucleon tranfer reactions published in Ref. [1]. This work has been supported in part by the U.S. Department of Energy under Contracts No. W-7405-ENG-36 (LANL), W-7405-ENG-48 (LLNL) and AC03-76SF00098 (LBNL) and by the National Science Foundation (Rutgers).
[1] Y. H. Zhang *et al.*, Phys. Rev. C **70** 024301 (2004).

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