Abstract Submitted
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Probing the structure of ^{25}Na with γ-ray spectroscopy[1] K. PEPPER, S. TABOR, T. BALDWIN, D.B. CAMPBELL, C. CHANDLER, M.W. COOPER, C.R. HOFFMAN, K.W. KEMPER, J. PAVAN, A. PIPIDIS, M.A. RILEY, M. WIEDEKING, Florida State University — Excited states in the neutron-rich, $T = 3/2$ nucleus ^{25}Na have been populated with the ^{14}C(^{14}C,t) and ^{9}Be(^{18}O,d) reactions in two separate experiments. The t-γ, t-γ-γ, and γ-γ coincidence data were analyzed to study the structure of ^{25}Na. Nine new γ-ray transitions have been added to the level scheme, and the decay modes of six states previously known only from charged particle measurements have been determined. The results will be discussed in terms of the shell model using the USD, USDA, and USDB interactions.

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