Abstract Submitted for the SES12 Meeting of The American Physical Society

High Spin Structures in  $25Na^1$  JUSTIN VONMOSS, SAMUEL TA-BOR, VANDANA TRIPATHI, PETER BENDER<sup>2</sup>, ALEXANDER VOLYA, PEI-LUAN TAI, Florida State University, FLORIDA STATE UNIVERSITY DEPART-MENT OF NUCLEAR PHYSICS TEAM — High-spin states in <sup>25</sup>Na were populated in the <sup>9</sup>Be (<sup>18</sup>O, pn) reaction using a 35 MeV <sup>18</sup>O beam from the John D. Fox Superconducting Accelerator Laboratory at Florida State University. Gamma rays were detected using the FSU compton-supressed germanium array in coincidence with protons from the reaction. Two new states and seven new gamma transitions were observed. Additionally a doublet has been identified which a resolves conflict in the published works. Unobserved, and highly excited particle-hole states have been predicted using shell model calculations.

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