BAND STRUCTURES IN THE N=Z NUCLEUS ^{68}Se

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High Spin states in the N=Z=34 ^{68}Se nucleus were populated in the ^{40}Ca(^{32}S, 2p2n)^{68}Se reaction at a beam energy of 134 MeV. The experiment was performed at the ATLAS facility using the Gammasphere in conjunction with the Microball charged-particle detector array and the FMA. A total of about 145 million events were sorted into a γ-γ-γ cube, subject to the condition that 2 protons were detected in the Microball. In the previously published work, Lister *et al.*[9] and Skoda *et al.*[10], have identified several of the low-lying states [2^+, 4^+, ($5^{(-)}$), and ($7^{(-)}$)] in ^{68}Se. In the present work, we have extended the ground-state band and have succeeded in establishing an excited band in this nucleus. The ground-state and the excited bands may be attributed to the coexisting oblate and prolate shapes that have been predicted by the TRS calculations [10].

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[10]S. Skoda *et al.*, Phys. Rev. C**58**, R5 (1998).