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Shell Model Structure of the Even Isotopes of Argon SHADOW ROBINSON, Millsaps College, LARRY ZAMICK, YITZHAK SHARON, Rutgers University — We perform 0 $\hbar\omega$ model space calculations in the sdpf model space for isotopes of Argon ranging in mass from 38 to 46. These calculations are performed with both the older WBT interaction and the newer SDPF interaction. The results are similar for the lower mass isotopes but diverge as the neutrons approach the N=28 magic number. We draw particular attention to the differing g factors of the 2_1^+ state in ^{46}Ar. Additionally, single j shell symmetries in the ^{40,44}Ar isotopes are pointed out.

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