

sd-pf cross-shell model studies of M1 strength in argon isotopes

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Large scale shell model calculations in the valence space spanned by *sd* and *pf* major shells for ³⁶⁻⁴⁰Ar isotopes are presented. The mechanism of M1 strength fragmentation, the role of different n-particle n-hole cross-shell excitations and the evolution of the M1 strength with increase of neutron number are discussed.