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INVESTIGATION OF 0⁺ STATES IN ²²⁸Th VIA TWO-NEUTRON TRANSFER: EXPERIMENTAL DATA

The excitation spectra in the deformed nucleus ²²⁸Th have been studied by means of the (p, t) reaction, using the Q3D spectrograph facility at the Munich Tandem accelerator. The angular distributions of tritons were measured for about 110 excitations seen in the triton spectra up to 2.5 MeV. Firm 0^+ assignments are made for 17 excited states by comparison of experimental angular distributions with the calculated ones using the CHUCK3 code. Assignments up to spin 6^+ are made for other states.

Keywords: 0^+ states, collective bands, moments of inertia, nuclear models.