

COLLECTIVE STATES IN ^{230}Th : EXPERIMENTAL DATA

A. I. Levon, G. Graw, Y. Eisermann, R. Hertenberger, P. G. Thirolf, H.-F. Wirth

The excitation spectra in the deformed nucleus ^{230}Th were studied by means of the (p, t) reaction, using the Q3D spectrograph facility at the Munich Tandem accelerator. The angular distributions of tritons are measured for about 200 excitations seen in the triton spectra up to 3.3 MeV. Firm 0^+ assignments are made for 16 excited states by comparison of experimental angular distributions with the calculated ones using the CHUCK3 code and relatively firm - for 4 states. Assignments up to spin 6^+ are made for other states. Analysis of the obtained data will be presented in forthcoming paper.

Keywords: (p, t)-spectroscopy, Q3D spectrograph, angular distributions, couple channel analysis, collective states.