^{137}Ba(α,t) 1975IsZY

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 146, 1 (2017)	30-Sep-2017

$J^{\pi}(^{137}\text{Ba g.s.})=3/2^{+}$.

1975IsZY: E=27 MeV alpha beam was produced from the McMaster University FN Tandem Van de Graaff accelerator. Targets were barium oxide with thickness about 40 μg/cm^2 evaporated onto 30 μg/cm^2 carbon backings. Reaction products were momentum analyzed with a split-pole Engel spectrograph (FWHM=12 keV) and detected by nuclear emulsions. Measured σ(E). Deduced levels. Comparisons with shell-model calculations.

^{138}La Levels

E(level)†	E(level)†	E(level)†	E(level)†
0.0	409 *3*	1268 *1*	1624 *4*
72.6	≈479	1360 *4*	1644 *2*
116.2 *3*	≈518	1426 *4*	1686 *2*
161.3 *4*	641 *1*	1456 *2*	1713 *2*
192.4 *4*	1058 *2*	1530 *2*	1728 *2*
230.8 *6*	1160 *4*	1565 *5*	1755 *4*
292.9 *5*	1243 *1*	1579 *3*	1786 *2*

† From 1975IsZY.