

Muonic atom **1981Ba28**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen		NDS 185, 2 (2022)	23-Aug-2022

1981Ba28: muonic atomic transitions measured at Saclay. Data interpreted in terms of deformed Fermi distribution for the nuclear charge density. Analysis of isotope shifts and comparison with x-ray and optical isotope shifts. Quadrupole moments for g.s. and 22.5 level determined from 2p hyperfine structure. The g.s., 22.5, and 350 levels included in the analysis.

Following muonic transitions reported:

2p_{3/2}-2p_{1/2}: 89.47 14.
 4f_{7/2}-3d_{5/2}: 532.84 12.
 3d_{5/2}-2p_{3/2}: 1492.69 42.
 2p_{3/2}-1s_{1/2}: 4491.63 60.
 3d_{5/2}-1s_{1/2}: 5985.8 16.

 ^{149}Sm Levels

E(level)	J ^π †	Comments
0.0	7/2 ⁻	Q=0.094 24
22.5	5/2 ⁻	Q=1.014 93; B(E2)†=0.229 17

† From the Adopted Levels.