

$^{44}\text{Ca}(\text{p},\text{n})$ 1973Mo33

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh		NDS 190,1 (2023)	20-Jun-2023

Target ^{44}Ca $J^\pi=0^+$.

[1973Mo33](#): E=4.5-5.4 MeV proton beam produced from the Van de Graaff accelerator in the Laboratori Nazionali di Legnaro.

Target of CaCO_3 (enriched to 95% in ^{44}Ca) evaporated onto thick Au backing. Slow neutrons detected by a BF_3 counter with a thin paraffin absorber, while fast neutrons detected by another BF_3 counter embedded in a large paraffin block (so-called long counter). Measured ratio of yields for slow to fast neutrons. Deduced levels, J, π .

[1967Mc07](#): E=4.0-5.5 MeV. Three levels at 0, 71.5 and 145.5 reported.

Others: [1960Mc12](#), [1967Mc07](#), [1971De28](#), [1979Ch29](#), [1982Mi06](#), [1991Bo53](#), [1997Jo08](#).

 ^{44}Sc Levels

E(level) [†]	J^π [‡]
0	(2 ⁺)
68	(1 ⁻)
146	(0 ⁻)
238 [#]	
350 [#]	
667	(1 ⁺)

[†] From [1973Mo33](#).

[‡] From ratio of yields for slow and fast neutrons ([1973Mo33](#)).

[#] Weak.