
 $^{144}\text{Sm}(^{12}\text{C}, ^{10}\text{Be})$ [1980Pa07](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, A. Rodionov and G. Shulyak		NDS 136, 163 (2016)	14-Jul-2016

[1980Pa07](#): $^{144}\text{Sm}(^{12}\text{C}, ^{10}\text{Be})$, E=74 MeV; measured $^{10}\text{Be}^{4+}$ ion spectra, $\sigma(E(^{10}\text{Be}), \theta)$ at 20°, 25°, 30°. ^{146}Gd ; deduced levels. Cyclotron, Enge split-pole spectrograph, gas proportional counter (ΔE , E, TOF), FWHM $\approx$ 100 keV.

 ^{146}Gd Levels

E(level) [†]	J π [#]	$d\sigma/d\Omega(\mu\text{b/sr at } \theta=30^\circ)$
0.0		60 9
1580	3 ⁻	38 7
1970	2 ⁺	19 6
2660	5 ⁻	86 10
2980	7 ⁻	35 7
3430	9 ⁻	82 10
3670 [‡] 30	6 ⁺	53 8
3860	10 ⁺	82 10
4740 [‡] 30		24 6
6470 [‡] 30		35 7

[†] Associated by [1980Pa07](#) with the levels seen in γ ray studies ([1978Kl01](#), [1978Og03](#), [1979Kl04](#)), except as noted.

[‡] A state observed in [1980Pa07](#) but not populated in γ ray studies.

[#] From 'Adopted Levels'.