^{31}P(α,p)

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Ninel Nica, Balraj Singh	NDS 113, 1563 (2012)	28-May-2012

1962Li07: ^{31}P(α,p) E=42 MeV, target of red phosphorous on polystyrene backing. Used dE/dx-E telescope (of plastic and CsI(Tl) detectors). Measured angular distribution.

1975So11: ^{31}P(α,p) E=7.60 MeV, target of red phosphorous on Au backing. Used surface barrier annular counter for protons and ΔE plastic scintillator telescope for pair detection.

^{34}S Levels

E(level)[†]	T$_{1/2}$	Comments
0.0		σ_{total}=17.5 +6−5 μb (1962Li07).
2127.564 13		σ_{total}=20 +8−6 μb (1962Li07).
3916.408 21	1.11 ps 9	T$_{1/2}$: mean lifetime τ in fs: 1600 130 (given by 1975So11 from 1970Gr11, see ^{31}P(α,pγ) dataset).
		for g.s. decay (1975So11): $\Gamma_\pi/\Gamma(\times 10^{-3})$=0.38 6, E0 matrix element $<M>_\pi$=1.55 15 fm^2; see also 2005Ki02: q$^2_{\eta K}$(E0/E2)=0.055 9; X(E0/E2)=0.093 15; $10^3 \times \rho^2$(E0)=11 3 (E0 refers to 3916.4γ and E2 to 1788.8γ).

[†] From Adopted Levels.