^{26}Al(p,γ) 1984Bu09,2006Ru09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 112, 1875 (2011)	30-Nov-2010

1984Bu09: ^{26}Al(p,γ), (p,p$'\gamma$), E=0.17-1.58 MeV; Ge(Li) detector, measured E(γ), I(γ)(E), γ yield vs E; deduced levels, absolute γ-transition strength, J, π, γ-ray branching ratios, astrophysical reaction rate; Ge(Li) detector.

2006Ru09: ^{26}Al(p,γ) in inverse kinematics, ^{26}Al obtained from 500 MeV proton bombardment on a SiC target, ^{26}Al diffused out of the target, ionized, accelerated and delivered in bunches separated by 86 ns to hydrogen gas target; An array of 30 BGO detectors, a two-stage electromagnetic recoil separator, double-sided silicon strip detector, a Si surface barrier detector; detected elastically scattered protons; deduced excitation energy of a proton capture state and the resonance strength.

^{27}Si Levels

E(level)[†]	Γ (keV)	S[‡]	Comments
0			
5262.0 *5*			E(level): 7825 level decay through this level (1984Bu09).
7652 *3*			E(level): From 2006Ru09. Measured resonance strength $\omega\gamma$ = 35(7) μeV.
7739.1 *3*	<0.3 keV	0.08 *2*	E_p=286.6(3) keV.
7825 *3*	<1.0 keV	1.4 *4*	E_p=376(3) keV.
8156 *2*	<0.5 keV	1.1 *6*	E_p=719(2) keV.
8163 *2*	<0.5 keV	0.35 *13*	E_p=727(2) keV.
8224 *2*	<0.5 keV	0.8 *3*	E_p=790(2) keV.
8287 *3*	<1.0 keV	0.90 *35*	E_p=856(3) keV.
8356 *2*	<0.5 keV	1.5 *6*	E_p=927(2) keV.
8544 *3*	4.8 keV *7*	20[#] *7*	E_p=1122(3) keV.
8669 *3*	5.4 keV *6*	70[#] *25*	E_p=1252(3) keV.
8776 *5*	16 keV *4*	660[#] *99*	E_p=1363(5) keV.

[†] Deduced by the evaluator using E_p reported in 1984Bu09 and Q_p=7463.20(16) keV (2011AuZZ). E_p are quoted in keV (lab).

[‡] S(p,γ) in units of eV, except otherwise noted.

[#] S(P,P_2) in units of eV from ^{26}Al(P,$P_2\gamma$)^{26}Al reaction.