^{84}Sr(p,p) IAR 1974Va27

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 116, 1 (2014)	31-Dec-2013

1974Va27: E=4.18 MeV to 6.73 MeV, θ=90°, 125°, and 160°, enriched target. Measured $\sigma(\theta)$ at 7 MeV and 12 MeV, partial wave analysis, deduced t, L, and (2J+1)Γ_p.

^{85}Y Levels

Analysis by Green′s function method. Strength was also deduced by the R-matrix method, where the values obtained are ≈30% lower.

E(level)[†]	J$^\pi$	Γ	L	(2J+1)Γ_p/Γ_p(theory).[‡]	Comments
8774 *24*	5/2$^+$	28 keV *8*	2	3.2 *11*	Γ_p=1.7 keV *5* E(p)(lab)=4343 *15*. E(level),J$^\pi$: IAR of the 1355, 5/2$^+$ level in ^{85}Sr. Γ_p: from (2J+1)Γ_p=10 keV *3* and J$^\pi$=5/2$^+$ of the parent level.
8811 *24*	1/2$^+$	22 keV *5*	0	0.49 *12*	Γ_p=10 keV *2* E(p)(lab)=4381 *15*. E(level): IAR of the 1403, 1/2$^+$ level in ^{85}Sr.
9220 *24*	3/2$^+$,5/2$^+$	23 keV *8*	2	1.2 *3*	E(level),J$^\pi$: IAR of the 1793, 3/2$^+$,5/2$^+$ level in ^{85}Sr. E(p)(lab)=4794 *15*. Γ_p: (2J+1)Γ_p=7.4 keV *16*.
9282 *24*	1/2$^+$	15 keV *5*	0	0.04 *2*	Γ_p=1.4 keV *6* E(level): IAR of the 1842, 1/2$^+$ level in ^{85}Sr. E(p)(lab)=4857 *15*.
9750 *24*	(5/2)$^+$	32 keV *10*	2	0.8 *2*	Γ_p=1.8 keV *5* E(level),J$^\pi$: IAR of the 2325, (5/2)$^+$ level in ^{85}Sr. E(p)(lab)=5331 *15*. Γ_p: From (2J+1)Γ_p=11 keV *3* and J$^\pi$=5/2$^+$ of the parent level.
9938 *24*	1/2$^+$	19 keV *5*	0	0.08 *2*	Γ_p=4.5 keV *10* E(p)(lab)=5521 *15*. E(level): IAR of the 2496, 1/2$^+$ level in ^{85}Sr.
9964 *24*	3/2$^+$,5/2$^+$	20 keV *4*	2	0.43 *13*	E(level): IAR of the 2527, 3/2$^+$,5/2$^+$ level in ^{85}Sr. E(p)(lab)=5547 *15*. Γ_p: (2J+1)Γ_p=7.2 keV *18*.
10033 *24*	1/2$^+$	16 keV *5*	0	0.07 *2*	Γ_p=4.0 keV *10* E(p)(lab)=5617 *15*. E(level): IAR of the 2602, 1/2$^+$ level in ^{85}Sr.
10180 *24*	1/2$^+$	19 keV *3*	0	0.013 *3*	Γ_p=7.6 keV *10* E(p)(lab)=5766 *15*. E(level): IAR of the 2748, 1/2$^+$ level in ^{85}Sr.
10501 *24*	1/2$^+$	54 keV *6*	0	0.23 *6*	Γ_p=15 keV *3* E(p)(lab)=6091 *15*.
10619 *24*					E(p)(lab)=6210 *15*.
10730 *24*	1/2$^+$	25 keV *5*	0	0.13 *3*	Γ_p=9.6 keV *16* E(p)(lab)=6322 *15*. E(level): IAR of the 3301, 1/2$^+$ level in ^{85}Sr.
10894 *24*	1/2$^+$	30 keV *6*	0	0.09 *2*	Γ_p=7.5 keV *10* E(p)(lab)=6488 *15*. E(level): IAR of the 3455, 1/2$^+$ level in ^{85}Sr.
11029 *24*	1/2$^+$	22 keV *4*	0	0.12 *3*	Γ_p=10.0 keV *18* E(level): IAR of the 3582, 1/2$^+$ level in ^{85}Sr. E(p)(lab)=6625 *15*.

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^{84}Sr(p,p) IAR 1974Va27 (continued)

^{85}Y Levels (continued)

E(level)[†]	Jπ	Γ	L	(2J+1)Γ_p/Γ_p(theory).[‡]	Comments
11082 *24*	1/2$^+$	25 keV *5*	0	0.08 *2*	Γ_p=7.0 keV *16* E(p)(lab)=6679 *15*.

[†] E(p)(C.M.)+S(p)(^{85}Y), where S(p)(^{85}Y)=4482 *19* (2012Wa38). 1974Va27 list E(p)(lab).
[‡] Γ_p(theory) is for single-particle model.