^{86}Sr(p,p'),(pol p,p') IAR   1977Ki06,1972Me19

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	T. D. Johnson and W. D. Kulp(a)	NDS 129, 1 (2015)	27-Jul-2015

1977Ki06: E_p=4.5-7 MeV, FWHM ≈ 35 keV, $\theta \approx 30°-160°$. Used polarized and unpolarized beams, measured excitation functions and on-resonance $\sigma(\theta)$ to ^{86}Sr ground state and first-excited 2^+ level for all strong IAR between E_p=4.5 and 7 MeV. Measured analyzing powers, inelastic spin-flip cross sections and asymmetries for d-wave resonances by use of polarized beam and detection of p-γ coincidences. Analysis of results by means of IAR theories and statistical models. Deduced total and partial widths, spectroscopic amplitudes.

1972Me19: E_p=4.5-7.5 MeV, measured $\sigma(E)$ and $\sigma(\theta)$. Deduced IAR parameters, spectroscopic factors.

For p-γ correlation measurements: see 1974Cu04. Also: 1975KiZK, 1976KiZH, 1975VaYH.

^{87}Y Levels

Γ_p: from 1977Ki06; other: 1972Me19.

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[#]	L[@]	(2J+1)S(p,p)[&]	Comments
S(p)+4808 *11*	$5/2^+$	23 keV *1*	2	2.72	Γ_p=3.44 keV *20*
S(p)+5198 *11*	$1/2^+$	40 keV *2*	0	0.58	Γ_p=14.0 keV *10*
S(p)+5750[a] *15*	$3/2^+$	21.0 keV *15*		0.29	Γ_p=1.6 keV *2*
S(p)+6024 *11*	$1/2^+$	34 keV *2*	0	0.32	Γ_p=11.5 keV *6*
S(p)+6187 *11*	$1/2^+$	33 keV *2*	0	0.25	Γ_p=9.5 keV *5*
S(p)+6252 *23*	$(3/2^+ \& 5/2^+)$	25 keV *8*	2	≈0.2	Γ_p: $\Gamma(p)$=1.4 *10* keV for J^π=3/2$^+$ and $\Gamma(p)$=1.0 keV *8* for J^π=5/2$^+$. E(level): unresolved doublet; see ^{86}Sr(d,p).
S(p)+6663 *11*	$3/2^+$	24 keV *1*	2	0.54	Γ_p=5.2 keV *3* L: from 1975VaYH.
S(p)+6957 *14*	$1/2^+$	44 keV *4*	0	0.25	Γ_p=11.9 keV *7*
S(p)+7267[b] *15*	$3/2^+$		2		
S(p)+7377[b] *15*	$5/2^+$		2		

[†] Weighted average from 1977Ki06 and 1972Me19, unless indicated otherwise. Energies are in lab coordinates. S$_p$=5784.1 keV *11*.

[‡] From polarized-beam experiments (1977Ki06,1975VaYH); these assignments have been adopted.

[#] From 1977Ki06; other: 1972Me19.

[@] Derived from the shape of the resonance curve at 90° and 125° (1972Me19).

[&] From IAR elastic scattering (1977Ki06); other: 1972Me19.

[a] From 1977Ki06 only.

[b] From 1972Me19. See also 1975VaYH.