$^{88}Sr(p,p')$,(pol p,p')   1978KaZV,1985Mo11,1993Ke03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan and A. A. Sonzogni	NDS 115, 135 (2014)	1-Nov-2013

1993Ke03: E(pol p)=204 MeV. Measured $\sigma(\theta)$, analyzing powers using QDDM magnetic spectrometer, a single helical wire chamber at the focal plane, and a pair of ΔE/E scintillators (FWHM=80 keV); operator renormalization approximation for the shell model (ORASM) calculations.

1985Mo11: E(p)=201 MeV. Measured $\sigma(\theta)$ for θ=3° to 11° using magnetic spectrometer and two multiwire proportional counters (FWHM=70-80 keV); DWIA analysis.

1978KaZV: E(p)=25.1 MeV. Measured $\sigma(\theta)$ for θ=10° to 50° using magnetic spectrometer (FWHM=10-15 keV); macroscopic and microscopic DWBA analysis.

Others: 1989Va02, 1988Ko06, 1986Ko17, 1974Ce04, 1969Pi03, 1967St13.

See also microscopic DWBA and coupled-channels calculations of 1982Re02.

^{88}Sr Levels

E(level)[†]	J$^\pi$[‡]	L[#]	β_L[@]	Comments
0				
1836 4	2$^+$	2	0.110	β_L: Others: 0.13 (1967St13), 0.11 (1969Pi03), 0.114 11 (1989Va02).
2734 4	3$^-$	3	0.166	β_L: Others: 0.20 (1967St13), 0.17 (1969Pi03), 0.177 18 (1989Va02).
3154 4		0		
3217 4	(2$^+$)	(2)	0.07	β_L: from 1969Pi03.
				J$^\pi$: poor fit to $\sigma(\theta)$ and analyzing powers in (pol p,p') (1993Ke03).
3488 4		a		
3586 4	5$^-$	5	0.075	
3637 4			0.07	β_L: from 1969Pi03.
3957 4		5	0.026	
3996 4		(0)		
4042 4	(2$^+$)	(2)	0.065	β_L: Other: 0.09 (1969Pi03).
				J$^\pi$: poor fit to $\sigma(\theta)$ and analyzing powers in (pol p,p') (1993Ke03).
4171 4	5$^-$			L,β_L: L=(6,7) with β_L=0.048,0.05 (1978KaZV) in disagreement with J$^\pi$=5$^-$ from (pol p,p').
4227 4	3$^-$	3	0.044	β_L: Other: 0.06 (1969Pi03).
4269 4		(2)	0.012	
4301 4		4	0.054	β_L: Other: 0.07 (1969Pi03).
4355 4				
4370 4	7$^-$			J$^\pi$: from fit to only $\sigma(\theta)$ data from 1988Ko06 by 1993Ke03.
4418 4				
4445[&] 4				
4456 4				
4486 4		(0)		
4521 4		5	0.053	
4626 4		(2)	0.023	
4645 4				
4746 4				
4774 4		2	0.047	β_L: Other: 0.07 (1969Pi03).
4804 4		(0)		
4852 4		(2)		
4886[&] 4				
4929 4		2	0.014	
4993 4				
5016 6				
5091 6		2	0.020	
5109[b] 6				
5127 6				
5174 6				
5257[&] 6		(3)	0.042	β_L: Other: 0.06 (1969Pi03).

^{88}Sr(p,p'),(pol p,p') **1978KaZV,1985Mo11,1993Ke03 (continued)**

^{88}Sr Levels (continued)

E(level)[†]	L[#]	β_L [@]	Comments
5316 6	4	0.026	
5386 6			
5419 6	(3)	0.028	
5467 6	(3)	0.056	β_L: Other: 0.07 (1969Pi03).
5488 6			
5512 6			
5537 6	3	0.065	
5584 6			
5614 6			
5653 6			
5687 6	4	0.044	
5730[&] 6			
5766 6			
5798 6			
5813 6	3	0.042	
5835 6			
5860 6	4	0.026	
5925 6			
5948 6			
5992 6			
6006 6	(1)		
6034 6			
6053 6			
6106 6			
6126 6			
6154 6			
6216 6			
6258 6	4	0.030	
6282 6	4	0.030	
6362 6			
6419 6			
6473[&] 6			
6522 6			
6550 6	4	0.044	
6615 6	3	0.060	
6640 6	(1)		
6669 6			
6703 6			
6746 6			
6770 6			
6792 6			
6865 6			
6899 6			
6973 6	4	0.05	
7027 8	4	0.045	
7056 8	3	0.048	
7105 8			
7170 8			
7195 8			
7257[&] 8			
7330 8			
7360 8			
7402 8			
7427 8			
7460 8			
7481 8			

^{88}Sr(p,p′),(pol p,p′)　　1978KaZV,1985Mo11,1993Ke03 (continued)

^{88}Sr Levels (continued)

E(level)[†]	E(level)[†]	L[#]	E(level)[†]	L[#]	E(level)[†]	L[#]
7526 *8*	7911 *8*		8268 *8*	(0)	9.13×10^3? *2*	*a*
7574 *8*	7969 *8*		8302 *8*	(0)	9.26×10^3 *2*	*a*
7623 *8*	8044 *8*		8.47×10^3 *2*	*a*	9.35×10^3? *2*	*a*
7682 *8*	8069 *8*	(0)	8.55×10^3? *2*	*a*	9.45×10^3 *2*	*a*
7753 *8*	8119 *8*		8.67×10^3? *2*	*a*	9.58×10^3 *2*	*a*
7819 *8*	8171 *8*	(0)	8.78×10^3? *2*	*a*	9.70×10^3? *2*	*a*
7847 *8*	8200 *8*		8.93×10^3? *2*	*a*	9.90×10^3? *2*	*a*
7874 *8*	8228 *8*		9.03×10^3 *2*	*a*	10.13×10^3 *2*	*a*

[†] From 1978KaZV for E<8400 keV. ΔE reported to vary from 4 keV for the lowest to 8 keV for the highest levels. Individual uncertainties assigned by the evaluators. Above 8400 keV, data are from 1985Mo11.

[‡] From comparison of $\sigma(\theta)$ and analyzing powers in (pol p,p′) to ORASM predictions (1993Ke03).

[#] From DWBA analysis in 1978KaZV.

[@] β_L from DWBA analysis (1978KaZV), except where noted. See 1978KaZV for results of microscopic DWBA calculations.

[&] Unresolved doublet.

[a] J^π=1$^+$ indicated by distorted-wave impulse approximation analysis of $\sigma(\theta)$ in 201-MeV p scattering (1985Mo11). 1$^+$ for the 3488 level is also supported by microscopic DWBA analysis of 1974Ce04.

[b] E=5010 in table 4.3.3 of 1978KaZV is probably a misprint since it is sorted behind the 5091. The evaluators assume that this value should read 5109 as it appears in fig. 4.3.3.