

$^{88}\text{Sr}(p,\gamma)$  1979Sz06,1971Um02,1969Ir01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 114, 1 (2013)	20-Oct-2012

1979Sz06: E=2-3 MeV. Measured  $E\gamma$ ,  $I\gamma$ ; deduced  $\gamma$ -ray strength functions.

1971Um02: E=2.3-3.0 MeV. Measured  $\gamma$ ,  $\gamma\gamma$  coin, excitation functions. Level scheme deduced up to 3610, cross sections and yields.

1969Ir01: E=3.93 MeV. Measured  $\gamma$  spectra. Both s-wave and d-wave captures are involved.

Others:

1982Dy01: E=2.2-3.7 MeV. Measured  $\sigma(E)$ , deduced level density.

1984Se16:  $^{88}\text{Sr}(\text{pol } p,\gamma)$  E=15 MeV, analyzed  $\sigma(\theta)$ ,  $A\gamma(\theta)$ .

Additional information 1.

 $^{89}\text{Y}$  Levels

See 1979Sz06 for  $\gamma$ -ray strength functions.

E(level) <sup>†</sup>	$J^\pi$ <sup>‡</sup>	Relative yields <sup>#</sup>	Comments
0	1/2 <sup>-</sup>	100.0 18	
909	9/2 <sup>+</sup>	12.4 7	Additional information 2.
1508	3/2 <sup>-</sup>	82.6 18	
1745	5/2 <sup>-</sup>	38.4 12	
2225	5/2 <sup>+</sup>	25.4 12	
2531	7/2 <sup>+</sup>	5.6 17	
2566? <sup>@</sup>			Relative yields: 24 15 (1971Um02) for 2537+2566.
2628	9/2 <sup>+</sup>	2.5 9	
2687?		1.9 9	
2871? <sup>@</sup>			Relative yields: 26 8 (1971Um02) for 2871+2889.
2880	(3/2) <sup>-</sup>	30.8 13	
3067	3/2 <sup>-</sup>	24.7 19	
3105	(5/2) <sup>-</sup>	12.8 12	
3139	(5/2) <sup>-</sup>	10.4 15	
3248	(3/2,5/2)	17.9 12	
3410	(5/2) <sup>+</sup>	2.3 9	
3450	(7/2) <sup>+</sup>	7.5 8	
3502	(7/2) <sup>-</sup>	18.0 25	
3511	(3/2) <sup>-</sup>	12.0 18	
3552	(7/2) <sup>-</sup>	6.0 8	
3612? <sup>@</sup>			
3715	5/2 <sup>+</sup>	8.6 15	
3846	(3/2 <sup>-</sup> ,5/2 <sup>-</sup> )	4.9 9	
3863	(3/2,5/2) <sup>-</sup>	7.5 11	
3993	3/2 <sup>-</sup>	11.9 17	
4018	1/2 <sup>+</sup>	16.5 30	
4173	3/2 <sup>-</sup> ,5/2 <sup>-</sup>	9.5 10	
(10937)	(5/2) <sup>+</sup>		E(level), $J^\pi$ : from 1969Ir01.

<sup>†</sup> From 1979Sz06, unless otherwise stated.

<sup>‡</sup> From Adopted Levels.

<sup>#</sup> Relative yields from 1979Sz06. See also 1971Um02 for similar values for selected levels.

<sup>@</sup> From 1971Um02 only.

$^{88}\text{Sr}(\text{p},\gamma)$  **1979Sz06,1971Um02,1969Ir01** (continued) $\gamma(^{89}\text{Y})$ 

$E_i(\text{level})$	$J_i^\pi$	$E_\gamma^\dagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	Comments
909	9/2 <sup>+</sup>	909		0	1/2 <sup>-</sup>	M4+E5	Mult.: from Adopted Gammas.
1508	3/2 <sup>-</sup>	1508		0	1/2 <sup>-</sup>		
1745	5/2 <sup>-</sup>	1745		0	1/2 <sup>-</sup>		
2225	5/2 <sup>+</sup>	1316		909	9/2 <sup>+</sup>		
2531	7/2 <sup>+</sup>	1620		909	9/2 <sup>+</sup>		
2880	(3/2) <sup>-</sup>	2880		0	1/2 <sup>-</sup>		
3067	3/2 <sup>-</sup>	3067		0	1/2 <sup>-</sup>		
3105	(5/2) <sup>-</sup>	3105		0	1/2 <sup>-</sup>		
3139	(5/2) <sup>-</sup>	3139		0	1/2 <sup>-</sup>		
3511	(3/2) <sup>-</sup>	3511		0	1/2 <sup>-</sup>		
3612?		3612		0	1/2 <sup>-</sup>		
(10937)	(5/2 <sup>+</sup> )	9193 6	34 9	1745	5/2 <sup>-</sup>		
		9431 6	47 12	1508	3/2 <sup>-</sup>		
		10025 6	11 3	909	9/2 <sup>+</sup>		
		10937 6	100 25	0	1/2 <sup>-</sup>		

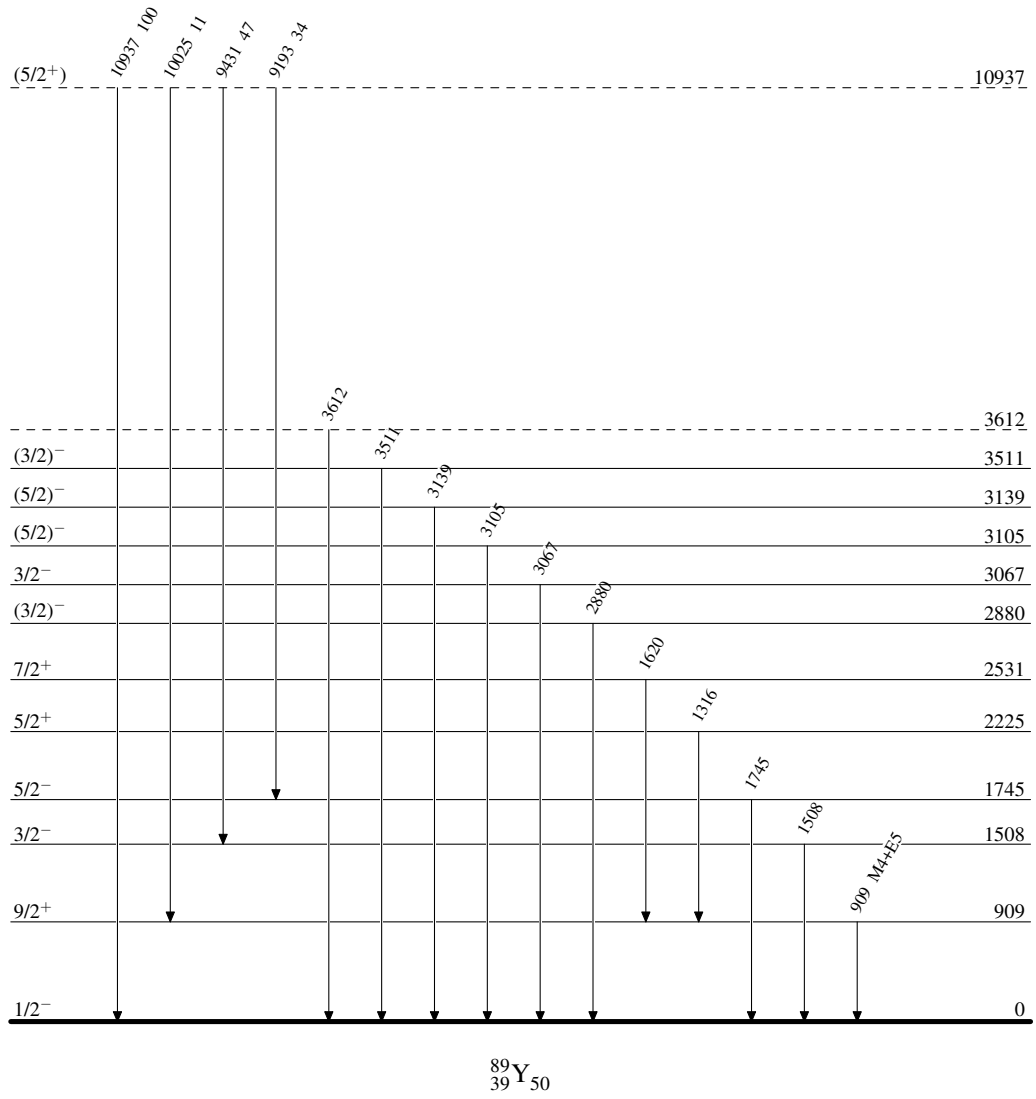
<sup>†</sup> Level-energy differences for levels below 3610. Low-energy  $\gamma$ -transitions are shown by [1971Um02](#). The  $\gamma$  rays from 1507 and 1745 levels are also reported by [1969Ir01](#).  $\gamma$  rays from the capture state at 10937 are from [1969Ir01](#).

<sup>‡</sup> From [1969Ir01](#) for the decay of capture state at 10937.

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## Level Scheme

Intensities: Relative photon branching from each level

 $^{89}_{39}\text{Y}_{50}$