

Target isotope: $^{84}_{38}\text{Sr}$ $I^\pi_\circ = 0^+$ Abundance: 0.56(1) % $S_\text{p} = 4492(25)$ keV

$^{85}_{39}\text{Y}(\text{p})$

E_\circ	$2J^\pi$	$2T$	Γ_p	Γ	E^*_{analog}	S_{pp}	S_{pp}	E_{cm}	E^*	Ref.
[keV]			[keV]	[keV]	[keV]			[keV]	[keV]	
4338(15)	5^+		1.7(5)	28(8)	1355	3.2(11)	2.2(7)	4287	8779(19)	74Va27 91Si01
4376(15)	1^+		10(2)	22(5)	1403	0.47(12)	0.32(8)	4325	8817(19)	74Va27 91Si01
4789(15)	$3^+, 5^+$		7.4(16)*	23(8)	1793	1.2(3)	0.8(2)	4733	9225(19)	74Va27 91Si01
4852(15)	1^+		1.4(6)	15(5)	1842	0.04(2)	0.03(1)	4795	9287(19)	74Va27 91Si01
5326(15)	$3^+, 5^+$		1.8(5)	32(10)	2329	0.8(2)	0.6(2)	5264	9756(19)	74Va27 91Si01
5517(15)	1^+		4.5(10)	19(5)	2496	0.08(2)	0.06(2)	5452	9944(19)	74Va27 91Si01
5542(15)	$3^+, 5^+$		7.2(18)*	20(4)	2527	0.43(13)	0.31(9)	5477	9969(19)	74Va27 91Si01
5612(15)	1^+		4.0(10)	16(5)	2602	0.07(2)	0.05(1)	5546	10038(19)	74Va27 91Si01
5761(15)	1^+		7.6(10)	19(3)	2748	0.13(3)	0.09(2)	5694	10186(19)	74Va27 91Si01
6086(15)	1^+		15(3)	54(6)		0.23(6)	0.16(4)	6015	10507(19)	74Va27 91Si01
6205(15)								6132	10624(19)	74Va27 91Si01
6317(15)	1^+		9.6(16)	25(5)	3301	0.13(3)	0.09(2)	6243	10735(19)	74Va27 91Si01
6483(15)	1^+		7.5(10)	30(6)	3455	0.09(2)	0.06(1)	6407	10899(19)	74Va27 91Si01
6620(15)	1^+		10.0(18)	22(4)	3582	0.12(3)	0.08(2)	6542	11034(19)	74Va27 91Si01
6674(15)	1^+		7.0(16)	25(5)		0.08(2)	0.06(2)	6596	11088(19)	74Va27 91Si01

Additional data on this isotope can be found in [01Gy03, 79Sz06].

* $(2J+1)\Gamma_\text{p}$ instead of Γ_p

Values E_\circ in [74Va27] are 5 keV larger, possibly corrected for the energy loss in the target.

Relative level population intensities and strength function for ^{85}Y are given in [79Sz06].

The spectroscopic factors S_{pp} are presented as $(2J+1)S_{\text{pp}}$ in two columns: the results obtained with the matrix theory and the Green function method, respectively [74Va27].

Target isotope: $^{86}_{38}\text{Sr}$ $I^\pi_\circ = 0^+$ Abundance: 9.86(1) % $S_\text{p} = 5784.2(14)$ keV

$^{87}_{39}\text{Y}(\text{p})$

E_\circ	$2J^\pi$	Γ_p	Γ	E^*_{analog}	$(2J+1)S_{\text{pp}}$	E_{cm}	E^*	Ref.
[keV]		[keV]	[keV]	[keV]		[keV]	[keV]	
4808(11)	5^+	3.44(20)	23(1)	1770.5	2.72	4752	10536(11)	72Me19 77Ki06
5198(11)	1^+	14.0(10)	40(2)	2169.3	0.58	5138	10922(11)	72Me19 77Ki06
5750(11)	3^+	1.6(2)	21.5(15)	2677.3	0.29	5684	11468(11)	77Ki06
6025(11)	1^+	11.5(6)	34(2)	2943	0.32	5955	11739(11)	72Me19 77Ki06
6187(11)	1^+	9.5(5)	33(2)	3125	0.25	6116	11900(11)	72Me19 77Ki06
6253(23)	$\langle 3^+ \rangle$	1.4(10)	25(8)		≈ 0.2	6182	11966(23)	77Ki06
6253(23)	$\langle 5^+ \rangle$	1.0(8)	25(8)		≈ 0.2	6182	11966(23)	72Me19 77Ki06
6663(11)	3^+	5.2(3)	24(1)		0.54	6587	12371(11)	72Me19 77Ki06
6957(14)	1^+	11.9(7)	44(4)	3885	0.25	6877	12661(14)	72Me19 77Ki06
7267(15)	3^+					7184	12968(15)	72Me19
7377(15)	5^+					7292	13076(15)	72Me19

Additional data on this isotope can be found in [91Si02, 79Sz06, 77Ki06, 76KiZH, 75KiZK, 75NoZT, 75VaYH, 74Cu04, 72Me19, 68Co02].

Target isotope: $^{87}_{38}\text{Sr}$ $I_o^\pi = 9/2^+$ Abundance: 7.00(1) % $S_p = 6707.7(15)$ keV

$^{88}_{39}\text{Y}(\text{p})$

E_o	J^π	Γ_p	Γ	E_{analog}^*	S_{pp}	S_{dp}	E_{cm}	E^*	Ref.
[keV]		[keV]	[keV]	[keV]			[keV]	[keV]	
366(20)*	$\langle 0^+ \rangle$			0.0	not observed		362	7070(20)	88Mu09
4764(10)	$\langle 2^+ \rangle$	3.6	20	4414	0.62	0.875	4710	11418	88Mu09 70Sl01
4828(10)		5.4	20	4514	0.93	1.08	4774	11482	88Mu09 70Sl01
4978(10)	$\langle 2^+ \rangle$	6.0	35	4632	0.91	0.564	4922	11630	88Mu09 70Sl01
5260(10)	$\langle 4^+, 5^+ \rangle$	7.0	35	4873	0.23	0.230	5201	11909	88Mu09 70Sl01
5435(10)		15.0	30	5109	1.46	1.04	5374	12082	88Mu09 70Sl01
5803(10)	$\langle 4^+ \rangle$	18.0	70	5465	0.24	0.563	5738	12446	88Mu09 70Sl01
6050(10)	$\langle 4^+, 5^+ \rangle$	50.0	80	5729	0.66	0.789	5982	12690	88Mu09 70Sl01

* Expected E_o value from the (p,d) reaction measurement.

$(2J+1)/(2J_o+1)$ S_{pp} and $(2J+1)/(2J_o+1)$ S_{dp} are given instead of S_{pp} and S_{dp} , respectively.

Target isotope: $^{88}_{38}\text{Sr}$ $I_o^\pi = 0^+$ Abundance: 82.58(1) % $S_p = 7071.4(22)$ keV

$^{89}_{39}\text{Y}(\text{p})$

E_o	$2J^\pi$	Γ_p	Γ	Γ_γ	Γ_{γ_o}	θ_n^2	E_{analog}^*	E_{cm}	E^*	Ref.
[keV]		[meV]	[keV]	[eV]	[eV]		[keV]	[keV]	[keV]	
5056(10)*	5^+	5.5(5)	12(5)		7(2)	1.20	0.0	4999	12074	68Co02 72Sp02 69Wi15 66Ki08 64Fo03
6061(10)*	$\langle 1^+ \rangle$	46	70	11(4)	16(3)	0.96	1032	5993	13068	68Co02 66Lo06
6993(10)	5^+	8(4)	25			0.30	1940	6914	13989	68Co02 70Co11 69Wi15
7063(10)*	3^+	28	50(30)		7(3)	0.63	2008	6983	14058	68Co02 69Wi15 66Lo06
7375(15)	$\langle 1^- \rangle$						2280	7292	14367	68Co02 70Co11
7505*	3^+	22	70(7)	14(5)	11(2)		2453	7415	14490	69ElZZ
7664(15)	$\langle 3^- \rangle$		30			0.30	2570	7578	14653	68Co02 66Lo06 73Sl01
7792(15)	7^+	4.0	20			0.57	2675	7704	14779	68Co02 70Co11 69Wi15
7844(15)	$\langle 5^- \rangle$		25				2707	7756	14831	68Co02
7924(15)	$\langle 7^- \rangle$		30				2805	7835	14910	68Co02 70Co11 69ElZZ
8019(15)	$\langle 3^+, 5^+ \rangle$		25				2916	7929	15005	68Co02 70Co11
8191(15)	3^+	7	70(20)			0.076	3126	8099	15174	68Co02 70Co11 69Wi15
8310(15)	5^+	1.5	40(10)			0.040	3249	8216	15291	68Co02 70Co11 69Wi15
8340(15)	$\langle 11^- \rangle$						3404	8246	15321	68Co02
8497(15)	11^-	$\langle 2.8 \rangle$	40			$\langle 0.240 \rangle$	3421	8401	15475	68Co02 70Co11 69ElZZ
8809(15)	$\langle 7^- \rangle$		55				3700	8710	15785	73Sl01
8860(15)*	$\langle 1^+ \rangle$		78(15)	42(21)	40(8)		3755	8760	15835	70Co11 73Sl01
9150(15)	$\langle 1^+ \rangle$		80(15)				4050	9050	16125	70Co11 73Sl01
9280(15)								9170	16245	70Co11
9340(15)								9240	16305	multpl 70Co11
9560(15)			50(15)					9450	16525	70Co11
9640(15)			50(15)					9530	16605	70Co11
9680(15)			50(15)					9570	16645	70Co11
9750(15)	$\langle 5^- \rangle$		65(15)					9640	16715	70Co11 73Sl01
9800(15)	$\langle 1^+ \rangle$						4660	9660	16730	70Co11
9800(15)			50(15)					9690	16760	70Co11

(continued)

 $^{89}_{39}\text{Y}(\text{p})$

E_{\circ}	$2J^{\pi}$	Γ_{p}	Γ	Γ_{γ}	$\Gamma_{\gamma_{\circ}}$	θ_{n}^2	E_{analog}^*	E_{cm}	E^*	Ref.
[keV]		[meV]	[keV]	[eV]	[eV]		[keV]	[keV]	[keV]	
9952(15)	$\langle 7^- \rangle$		40(15)					9840	18910	70Co11 73Sl01
10170(15)			50(15)					10050	17125	70Co11
10470(15)	$\langle 1^+ \rangle$		65(15)				5360	10350	17425	70Co11
10550(15)								10430	17505	70Co11

Additional data on this isotope can be found in [98Si31, 89Si20, 83Ch41, 83Na15, 81Ch27, 79Sz06, 77WiZV, 76Ha47, 75Bl06, 75Ge14, 75Ra18, 74Cu04, 73BeVV, 73Gr08, 73Mi18, 73Sl01, 72Au04, 72Bo40, 72Co21, 72Se07, 72Se10, 71Bo43, 71Kr21, 71Sp04, 71Um02, 69ClZZ, 69Du02, 69Du03, 69ElZZ, 69Ri08, 68Au03, 68Be12, 68Du0A, 68Du08, 68Sh03, 67Li03, 66Co0A, 66Co20, 66Ki08, 64Fo03].

* from the (p, γ) reaction measurements [68Sh03, 83Na15, 69Ri08, 72PaYW, 98Si31]

Values θ_{n}^2 are calculated [68Co02].

Values $E_{\text{r}}=5090(2J^{\pi}=5^+)$, $7010(5^+)$, $7090(3^+)$, $7530(3^+)$, $7810(7^+)$, $8210(3^+)$ and $8310(5^+)$ in keV are given in [69Wi15] without a direct reference to the frame used; we take them as E_{\circ} (and Γ , Γ_{p} in the laboratory frame).

$E_{\text{cm}}=5020$ keV, 6030 keV, 6980 keV and 7430 keV are given in [66Lo06].

Relative level population intensities and strength function are given in [79Sz06].

Partial radiative widths for the first five resonances are given in [98Si31, 68Sh03, 83Na15, 72PaYW].