

^{81}Y $Z = 39$ $N = 42$ adopted link ENSDF link

Based on ENSDF from Oct 2022, and mass evaluation from 2020

BE = 688.978 (0.005) MeV

Qbeta+ = 5.815 (0.006) MeV

	Energy T	J+	J-	J-other	T1/2	
81Y 1				0.000 (5/2+)	1	70.4 S 10
81Y 2				0.113 (3/2-)	2	7 NS LE
81Y 3				0.150 (7/2+)	3	7 NS LE
81Y 4				0.269 (9/2+)	4	7 NS LE
81Y 5				0.289 (5/2-)	5	7 NS LE
81Y 6				0.343 (1/2-)	6	
81Y 7				0.537 (7/2-)	7	7 NS LE
81Y 8				0.608 (5/2-)	8	
81Y 9				0.664 (5/2-)	9	
81Y 10				0.683 (11/2+)	10	7 NS LE
81Y 11				0.826 (9/2-)	11	7 NS LE
81Y 12				0.839 (13/2+)	12	3.0 PS 4
81Y 13				1.107 (9/2-)	13	
81Y 14				1.167 (11/2-)	14	7 NS LE
81Y 15				1.250 (9/2-)	15	
81Y 16				1.483 (15/2+)	16	0.7 PS GT
81Y 17				1.530 (13/2-)	17	7 NS LE
81Y 18				1.550 (13/2+)	18	
81Y 19				1.653 (17/2+)	19	0.66 PS +21-14
81Y 20				1.752 (17/2+)	20	
81Y 21				1.783 (13/2-)	21	
81Y 22				1.952 (15/2-)	22	7 NS LE
81Y 23				1.994 (13/2-)	23	
81Y 24				2.374 (17/2-)	24	0.53 PS +43-19
81Y 25				2.416 (17/2+)	25	
81Y 26				2.513 (19/2+)	26	0.28 PS +12-8
81Y 27				2.595 (17/2-)	27	0.69 PS GT
81Y 28				2.687 (21/2+)	28	0.28 PS +4-3
S-p =	2.690 (0.006)					
81Y 29				2.861 (19/2-)	29	0.44 PS +42-18
81Y 30				2.866 (17/2-)	30	
81Y 31				2.917 (21/2+)	31	
S-alpha=	3.307 (0.006)					
81Y 32				3.343 (21/2-)	32	0.26 PS +12-8
81Y 33				3.361 (19/2-)	33	
81Y 34				3.413 (21/2+)	34	
81Y 35				3.560 (21/2-)	35	0.20 PS +21-12

81Y	36				3.739	(21/2-)	36		
81Y	37				3.746	(23/2+)	37	0.16 PS	+9-7
81Y	38				3.895	(23/2-)	38	0.44 PS	+15-11
81Y	39				3.914	(25/2+)	39	0.15 PS	4
81Y	40				3.992	(25/2+)	40		

81Y	41				4.183	(23/2-)	41	0.7 PS	+62-5
81Y	42				4.440	(25/2-)	42	0.17 PS	+12-8
81Y	43				4.552	(25/2+)	43		
81Y	44				4.701	(25/2-)	44		
81Y	45				4.716	(25/2-)	45	0.82 PS	+66-22
81Y	46				5.032	(27/2+)	46		
81Y	47				5.090	(27/2-)	47	0.10 PS	+10-8
81Y	48				5.138	(27/2+)	48	0.25 PS	+10-8
81Y	49				5.213	(27/2-)	49	0.30 PS	12
81Y	50				5.271	(29/2+)	50	0.062 PS	28

81Y	51				5.500	(29/2+)	51		
81Y	52				5.664	(29/2-)	52	0.12 PS	+6-5
81Y	53				5.745	(29/2-)	53	0.18 PS	+12-10
81Y	54				5.753	(29/2-)	54		
81Y	55				5.837	(29/2+)	55		
81Y	56				6.046	(29/2-)	56		
81Y	57				6.387	(31/2-)	57	0.37 PS	+22-14
81Y	58				6.470	(31/2-)	58	0.35 PS	+17-12
81Y	59				6.509	(31/2+)	59		
81Y	60				6.629	(33/2+)	60	0.083 PS	21

81Y	61				6.673	(31/2+)	61		
81Y	62				6.893	(33/2-)	62		
81Y	63				6.912	(33/2-)	63	0.14 PS	+14-11
81Y	64				6.951	(33/2+)	64		
81Y	65				7.090	(33/2-)	65	0.05 PS	+5-4
81Y	66				7.315	(33/2+)	66		
81Y	67				7.512	(33/2-)	67		
81Y	68				7.711	(35/2-)	68		
81Y	69				7.865	(35/2-)	69		
81Y	70				7.892	(35/2-)	70		

81Y	71				7.929	(35/2-)	71		
81Y	72				7.948	(35/2+)	72		
81Y	73				8.080	(37/2+)	73	0.08 PS	+5-4
81Y	74				8.097	(35/2-)	74		
81Y	75				8.160	(35/2+)	75		
81Y	76				8.276	(37/2-)	76	0.10 PS	+15-8
81Y	77				8.505	(37/2+)	77		
81Y	78				8.520	(37/2-)	78	0.22 PS	7
81Y	79				8.584	(37/2-)	79		
81Y	80				8.918	(37/2+)	80		

81Y	81				9.168	(39/2-)	81	
81Y	82				9.323	(39/2+)	82	
S-2p	=	9.488	(0.006)	-----				
81Y	83				9.594	(41/2+)	83	0.028 PS +55-21
81Y	84				9.808	(41/2-)	84	0.021 PS +55-14
81Y	85				9.818	(39/2+)	85	
81Y	86				9.981	(41/2+)	86	

S-p = 2.690 (0.006)-----
S-n = 12.636 (0.008)-----
S-2p = 9.488 (0.006)-----
S-2n = 24.053 (0.080)-----
S-alpha= 3.307 (0.006)-----

S+p = -5.190 (0.006)
S+n = -10.422 (0.008)
S+2p = -6.478 (0.162)
S+2n = -22.635 (0.019)
S+alpha = -2.992 (0.007)

gap p = -2.500 (0.009)
gap n = 2.214 (0.011)
gap 2p = 3.010 (0.162)
gap 2n = 1.417 (0.083)
gap alpha = 0.316 (0.009)