

^{87}Zr $Z = 40$ $N = 47$ adopted link ENSDF link

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

BE = 750.258 (0.004) MeV

Qbeta+ = 3.671 (0.004) MeV

	Energy T	J+	J-	J-other	T1/2
87ZR 1	0.000	9/2+			1 1.68 H 1
87ZR 2	0.201	7/2+			2 2.44 NS 10
87ZR 3			0.336 1/2-		3 14.0 S 2
87ZR 4				0.471 (7/2+)	4
87ZR 5				0.524	5
87ZR 6				0.589	6
87ZR 7				0.802 (7/2)	7
87ZR 8				0.817	8
87ZR 9				0.932	9
87ZR 10				1.061	10
87ZR 11				1.069 (13/2)+	11 49 PS LT
87ZR 12				1.087 (9/2)	12
87ZR 13				1.125 (11/2+)	13
87ZR 14				1.284	14
87ZR 15				1.288	15
87ZR 16				1.505	16
87ZR 17				1.657 (11/2+)	17
87ZR 18				1.669	18
87ZR 19				1.691 (13/2)	19
87ZR 20				1.749	20
87ZR 21				1.884 (7/2+,9/2+,11/2)	21+
87ZR 22				1.911	22
87ZR 23				1.920	23
87ZR 24				1.949	24
87ZR 25				2.059	25
87ZR 26				2.069	26
87ZR 27				2.074 (13/2-)	27 2.97 NS 20
87ZR 28				2.125	28
87ZR 29				2.202 (17/2)+	29 35 PS LT
87ZR 30				2.245	30
87ZR 31				2.287	31
87ZR 32				2.312 (17/2-)	32 2.74 NS 9
87ZR 33				2.354	33
87ZR 34				2.467 (17/2-)	34 11 PS 3
87ZR 35				2.598	35
87ZR 36				2.894 (21/2)+	36 71 PS 7
87ZR 37				2.986 (19/2-)	37

87ZR 38	|	|	|	3.053		38		
87ZR 39	|	|	|	3.237	(19/2-)	39	3.0 PS	6
87ZR 40	|	|	|	3.366	(21/2-)	40	3 PS	LT

87ZR 41	|	|	|	3.380	(23/2)	41	0.2 PS	LT
87ZR 42	|	|	|	3.447		42		
87ZR 43	|	|	|	3.943	(25/2)	43	0.15 PS	5
87ZR 44	|	|	|	4.057	(25/2+)	44		
87ZR 45	|	|	|	4.129	(25/2)	45	0.80 PS	20
87ZR 46	|	|	|	4.333	(25/2-)	46	6.9 PS	14
87ZR 47	|	|	|	4.530	(27/2)	47	0.44 PS	10
87ZR 48	|	|	|	4.619	(27/2-)	48		
S-alpha=	4.974	(	0.008)	-----				
87ZR 49	|	|	|	5.055	(29/2+)	49		
87ZR 50	|	|	|	5.074	(27/2-)	50	0.5 PS	2

87ZR 51	|	|	|	5.508	(29/2+)	51		
87ZR 52	|	|	|	5.529	(29/2-)	52		
87ZR 53	|	|	|	5.690	(29/2-)	53		
87ZR 54	|	|	|	5.803	(31/2+)	54		
87ZR 55	|	|	|	6.213	(31/2-)	55		
87ZR 56	|	|	|	6.234	(33/2+)	56		
87ZR 57	|	|	|	6.269	(31/2-)	57		
87ZR 58	|	|	|	6.574	(35/2+)	58		
87ZR 59	|	|	|	6.840	(33/2-)	59		
S-p =	7.353	(	0.015)	-----				
87ZR 60	|	|	|	7.452	(35/2-)	60		

87ZR 61	|	|	|	7.477	(37/2+)	61		
87ZR 62	|	|	|	8.778	(39/2-)	62		

S-p =	7.353	(	0.015)	-----				
S-n =	9.449	(	0.005)	-----				
S-2p =	12.822	(	0.005)	-----				
S-2n =	22.315	(	0.008)	-----				
S-alpha=	4.974	(	0.008)	-----				
S+p =	-4.113	(	0.058)	-----				
S+n =	-12.353	(	0.007)	-----				
S+2p =	-10.246	(	0.006)	-----				
S+2n =	-21.674	(	0.005)	-----				
S+alpha =	-5.287	(	0.007)	-----				
gap p =	3.240	(	0.060)	-----				
gap n =	-2.904	(	0.009)	-----				
gap 2p =	2.576	(	0.008)	-----				
gap 2n =	0.641	(	0.009)	-----				
gap alpha =	-0.312	(	0.011)	-----				