

^{83}Zr $Z = 40$ $N = 43$ adopted link ENSDF link

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

BE = 704.537 (0.006) MeV

Qbeta+ = 6.294 (0.020) MeV

	Energy T	J+	J-	J-other	T1/2
83ZR	1			0.000 (1/2-)	1 42 S 2
83ZR	2			0.053 (5/2-)	2 0.53 US 12
83ZR	3			0.077 (7/2+)	3 1.8 US 1
83ZR	4			0.129 (3/2-)	4
83ZR	5			0.139 (9/2+)	5
83ZR	6			0.329	6
83ZR	7			0.338 (7/2-)	7 50 PS 4
83ZR	8			0.373 (5/2-)	8
83ZR	9			0.580	9
83ZR	10			0.583 (7/2-)	10 21.5 PS 55
83ZR	11			0.624	11
83ZR	12			0.680 (9/2-)	12 4.2 PS 8
83ZR	13			0.769 (11/2+)	13 2.3 PS LT
83ZR	14			0.880 (13/2+)	14 2.3 PS 3
83ZR	15			0.983 (9/2-)	15
83ZR	16			1.013 (11/2-)	16 1.9 PS 3
83ZR	17			1.262 (11/2-)	17 2.1 PS LT
83ZR	18			1.346	18
83ZR	19			1.384	19
83ZR	20			1.476 (13/2-)	20 0.76 PS 21
83ZR	21			1.591	21
83ZR	22			1.663 (15/2+)	22
83ZR	23			1.734	23
83ZR	24			1.771 (13/2-)	24
83ZR	25			1.817 (17/2+)	25 0.42 PS 14
83ZR	26			1.830 (15/2-)	26 0.62 PS 21
83ZR	27			2.021	27
83ZR	28			2.126 (15/2-)	28
83ZR	29			2.160	29
83ZR	30			2.258	30
83ZR	31			2.360	31
83ZR	32			2.398 (17/2-)	32 1.04 PS LT
83ZR	33			2.495	33
83ZR	34			2.675 (17/2-)	34
83ZR	35			2.708 (19/2+)	35
83ZR	36			2.743 (19/2-)	36 1.04 PS LT
S-alpha=	2.857 (0.010)				

83ZR	37				2.913	(21/2+)	37	0.37 PS	6
83ZR	38				2.926		38		
83ZR	39				3.095	(19/2-)	39		
83ZR	40				3.138	(19/2-)	40		

83ZR	41				3.305		41		
83ZR	42				3.374	(21/2-)	42		
83ZR	43				3.587		43		
83ZR	44				3.625	(21/2-)	44		
83ZR	45				3.689	(21/2-)	45		
83ZR	46				3.726	(23/2+)	46		
83ZR	47				3.731	(23/2-)	47		
83ZR	48				3.955	(25/2+)	48	0.40 PS	6
83ZR	49				3.982	(23/2-)	49		
83ZR	50				4.092		50		

83ZR	51				4.188	(23/2-)	51		
83ZR	52				4.283	(25/2+)	52		
83ZR	53				4.431	(25/2-)	53		
83ZR	54				4.470	(25/2-)	54		
83ZR	55				4.767	(27/2+)	55		
83ZR	56				4.839	(27/2-)	56		
83ZR	57				4.904	(29/2+)	57	0.42 PS	LT
83ZR	58				4.944	(27/2-)	58		
S-p	=	5.136	(0.008)	-----				
83ZR	59				5.348	(27/2-)	59		
83ZR	60				5.460	(29/2-)	60		

83ZR	61				5.626		61		
83ZR	62				5.645	(29/2-)	62		
83ZR	63				5.934	(31/2+)	63		
83ZR	64				6.022	(31/2-)	64		
83ZR	65				6.028	(33/2+)	65		
83ZR	66				6.074	(31/2-)	66		
83ZR	67				6.570	(33/2-)	67		
83ZR	68				6.949	(33/2-)	68		
83ZR	69				7.195	(35/2+)	69		
83ZR	70				7.235	(35/2-)	70		

83ZR	71				7.325	(37/2+)	71		
83ZR	72				7.380	(35/2-)	72		
83ZR	73				7.628	(37/2+)	73		
83ZR	74				7.817	(37/2-)	74		
83ZR	75				8.275	(37/2-)	75		
83ZR	76				8.586	(39/2+)	76		
83ZR	77				8.611	(39/2-)	77		
83ZR	78				8.758	(39/2-)	78		
83ZR	79				8.812	(41/2+)	79		
S-2p	=	8.961	(0.007)	-----				
83ZR	80				9.229	(41/2-)	80		

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83ZR 81 | | | 9.689 (41/2-) 81
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S-p = 5.136 ( 0.008)-----
S-n = 10.369 ( 0.007)-----
S-2p = 8.961 ( 0.007)-----
S-2n = 24.530 ( 0.092)-----
S-alpha= 2.857 ( 0.010)-----

S+p = -2.571 ( 0.006)
S+n = -13.581 ( 0.008)
S+2p = -6.176 ( 0.017)
S+2n = -23.406 ( 0.009)
S+alpha = -3.398 ( 0.007)

gap p = 2.565 ( 0.011)
gap n = -3.213 ( 0.011)
gap 2p = 2.785 ( 0.019)
gap 2n = 1.124 ( 0.093)
gap alpha = -0.541 ( 0.012)

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