

^{164}Yb $Z = 70$ $N = 94$ [link to full NNDC output](#)

Based on ENSDF from Dec 2018, and mass evaluation from 2016

BE = 1329.949 (0.015) MeV

Qbeta+ = 0.887 (0.029) MeV

	Energy T	J+	J-	J-other	T1/2

S-alpha=	-2.622	(0.029)	-----		
164YB 1	0.000	0+			1 75.8 M 17
164YB 2	0.123	2+			2 932 PS 30
164YB 3	0.386	4+			3 29.7 PS 10
164YB 4	0.760	6+			4 5.02 PS 17
164YB 5				0.864 (2+)	5
164YB 6				0.976 (0+)	6
164YB 7				1.004 (3+)	7
164YB 8	1.073	2+			8
164YB 9				1.144 (4+)	9
164YB 10	1.223	8+			10 1.5 PS 5

164YB 11				1.323 (2+,3,4+)	11
164YB 12				1.336 (1,2+)	12
164YB 13				1.348 (5)+	13
164YB 14				1.365 (4+,5,6+)	14
164YB 15				1.416 (1+,2,3,4+)	15
164YB 16				1.442 (5-)	16
164YB 17				1.500 (2+,3,4+)	17
164YB 18				1.513 (1,2+)	18
164YB 19				1.551 (4-)	19
164YB 20				1.565 (6+)	20

164YB 21				1.612 (1+,2,3,4+)	21
164YB 22				1.674 (7)-	22
164YB 23	1.753	10+			23 0.82 PS 30
164YB 24				1.780 (7+)	24
164YB 25				1.785 LE 4	25
164YB 26				1.798 (6-)	26
164YB 27				1.874 (8+)	27
164YB 28				1.951	28
164YB 29				2.000 (9)-	29
164YB 30				2.123 (8)-	30

164YB 31				2.272 (9+)	31
164YB 32				2.284 (10+)	32
164YB 33				2.310 (8-)	33
164YB 34	2.330	12+			34 0.55 PS 20
164YB 35				2.401 (11)-	35
164YB 36				2.483 (10)-	36

164YB	37				2.597	(10-)	37		
164YB	38	2.683	12+				38		
164YB	39				2.795	(11+)	39		
164YB	40				2.825	(12+)	40		

164YB	41				2.863	(13-)	41		
164YB	42				2.864	(12-)	42		
164YB	43	2.899	14+				43	0.73 PS	20
164YB	44				3.012	(12-)	44		
164YB	45	3.087	14+				45		
164YB	46				3.294	(13+)	46		
164YB	47				3.305	(14+)	47		
164YB	48				3.317	(14-)	48		
164YB	49				3.378	(15-)	49		
164YB	50				3.389	(16+)	50	1.75 PS	35

164YB	51				3.504	(14-)	51		
164YB	52	3.696	16+				52		
164YB	53				3.753	(15+)	53		
164YB	54				3.849	(16-)	54		
164YB	55				3.863	(16+)	55		
164YB	56				3.932	(18+)	56	0.74 PS	35
164YB	57				3.942	(17-)	57		
164YB	58				4.066	(16-)	58		
164YB	59				4.295	(17+)	59		
164YB	60				4.391	(18)+	60		

164YB	61				4.393	(17+)	61		
164YB	62				4.445	(18-)	62		
164YB	63				4.468	(17+)	63		
164YB	64				4.480	(18+)	64		
164YB	65				4.552	(19-)	65		
164YB	66				4.565	(20+)	66	0.29 PS	13
164YB	67				4.657	(18-)	67		
164YB	68				4.704	(18-)	68		
164YB	69				4.915	(19+)	69		
164YB	70				4.965	(19+)	70		

164YB	71				5.040	(19+)	71		
164YB	72				5.068	(20-)	72		
164YB	73				5.097	(20+)	73		
164YB	74				5.183	(20+)	74		
164YB	75				5.197	(20-)	75		
164YB	76				5.206	(21-)	76		
164YB	77				5.278	(22+)	77	0.173 PS	21
164YB	78				5.380	(20-)	78		

S-p	=	5.578	(0.016)						
164YB	79				5.597	(21+)	79		
164YB	80				5.611	(21+)	80		

164YB 81			5.688	(22-)	81	
164YB 82			5.695	(21+)	82	
164YB 83			5.804	(22+)	83	
164YB 84			5.865	(22-)	84	
164YB 85			5.907	(23-)	85	0.159 PS 21
164YB 86			5.961	(22+)	86	
164YB 87			6.058	(24+)	87	0.132 PS +42-21
164YB 88			6.084	(22-)	88	
164YB 89			6.273	(23-)	89	
164YB 90			6.308	(23+)	90	

164YB 91			6.339	(23+)	91	
164YB 92			6.372	(24-)	92	
164YB 93			6.429	(23+)	93	
164YB 94			6.525	(24+)	94	
164YB 95			6.606	(24-)	95	
164YB 96			6.667	(25-)	96	0.159 PS 35
164YB 97			6.786	(24+)	97	
164YB 98			6.848	(24-)	98	
164YB 99			6.897	(26+)	99	0.104 PS +28-21
164YB 100			7.011	(25-)	100	

164YB 101			7.067	(25+)	101	
164YB 102			7.134	(25+)	102	
164YB 103			7.149	(26-)	103	
164YB 104			7.201	(25-)	104	
164YB 105			7.218	(25+)	105	
164YB 106			7.300	(26+)	106	
164YB 107			7.405	(26-)	107	
164YB 108			7.495	(27-)	108	
164YB 109			7.646	(26+)	109	
164YB 110			7.786	(28+)	110	0.049 PS +21-14

164YB 111			7.829	(27-)	111	
164YB 112			7.887	(27+)	112	
164YB 113			7.970	(27-)	113	
164YB 114			7.977	(27+)	114	
164YB 115			8.019	(28-)	115	
164YB 116			8.059	(27+)	116	
164YB 117			8.135	(28+)	117	
164YB 118			8.265	(28-)	118	
164YB 119			8.398	(29-)	119	
164YB 120			8.715	(29-)	120	

164YB 121			8.725	(30+)	121	0.083 PS +35-28
164YB 122			8.771	(29+)	122	
164YB 123			8.871	(29+)	123	
164YB 124			8.971	(30-)	124	
164YB 125			8.999	(30+)	125	
164YB 126			9.185	(30-)	126	

S-2p = 9.261 (0.015)-----
 164YB 127 | | | 9.368 (31-) 127
 164YB 128 | | | 9.645 (31-) 128
 164YB 129 | | | 9.714 (32+) 129 0.083 PS 42
 164YB 130 | | | 9.717 (31+) 130

S-n = 9.790 (0.022)-----
 164YB 131 | | | 9.986 (32-) 131
 164YB 132 | | | 10.372 (33-) 132
 164YB 133 | | | 10.744 (34+) 133
 164YB 134 | | | 11.817 (36+) 134
 164YB 135 | | | 12.931 (38+) 135

S-p = 5.578 (0.016)-----
 S-n = 9.790 (0.022)-----
 S-2p = 9.261 (0.015)-----
 S-2n = 17.334 (0.022)-----
 S-alpha= -2.622 (0.029)-----

S+p = -2.714 (0.031)
 S+n = -7.349 (0.031)
 S+2p = -7.420 (0.032)
 S+2n = -16.721 (0.017)
 S+alpha = 3.232 (0.032)

gap p = 2.864 (0.035)
 gap n = 2.440 (0.038)
 gap 2p = 1.841 (0.035)
 gap 2n = 0.612 (0.028)
 gap alpha = 0.610 (0.043)