

^{122}Ba $Z = 56$ $N = 66$ [link to full NNDC output](#)

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

BE = 1015.498 (0.028) MeV

Qbeta+ = 3.536 (0.044) MeV

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

S-alpha=	-1.045	(0.030)	-----		
122BA 1	0.000	0+			1 1.95 M 15
122BA 2	0.196	2+			2 297 PS 27
122BA 3				0.569 (4+)	3
122BA 4				0.618 (2+)	4
122BA 5				0.939	5
122BA 6				1.082 (6+)	6
122BA 7				1.168 (3+)	7
122BA 8				1.205 (4+)	8
122BA 9				1.272	9
122BA 10				1.604 (5+)	10

122BA 11				1.702 (8+)	11
122BA 12				1.883 (5-)	12
122BA 13				2.142 (7+)	13
122BA 14				2.205 (7-)	14
122BA 15				2.298 (6-)	15
122BA 16				2.396 (10+)	16
122BA 17				2.640 (9-)	17
122BA 18				2.664 (8-)	18
122BA 19				2.694 (6-)	19
122BA 20				2.705 (6-)	20

122BA 21				2.714 (7-)	21
122BA 22				2.766 (9+)	22
122BA 23				2.805 (7-)	23
122BA 24				2.956 (8-)	24
122BA 25				3.118 (10-)	25
122BA 26				3.122 (12+)	26
122BA 27				3.155 (9-)	27
122BA 28				3.181 (11-)	28
122BA 29				3.393 (10-)	29
122BA 30				3.452 (11+)	30

122BA 31				3.669 (11-)	31
122BA 32				3.701 (12-)	32
122BA 33				3.827 (13-)	33
122BA 34				3.836 (14+)	34
122BA 35				3.981 (12-)	35
122BA 36				4.325 (13-)	36

122BA 37				4.397	(14-)	37
122BA 38				4.572	(16+)	38
122BA 39				4.572	(15-)	39
122BA 40				4.697	(14-)	40

S-p	=	4.796	(0.031)	-----		
122BA 41				5.097	(15-)	41
122BA 42				5.181	(16-)	42
122BA 43				5.380	(18+)	43
122BA 44				5.397	(17-)	44
122BA 45				5.517	(16-)	45
122BA 46				5.963	(17-)	46
122BA 47				6.035	(18-)	47
122BA 48				6.269	(20+)	48
122BA 49				6.285	(19-)	49
122BA 50				6.424	(18-)	50

122BA 51				6.910	(19-)	51
122BA 52				6.964	(20-)	52
S-2p	=	7.014	(0.030)	-----		
122BA 53				7.237	(21-)	53
122BA 54				7.252	(22+)	54
122BA 55				7.408	(20-)	55
122BA 56				7.930	(21-)	56
122BA 57				7.984	(22-)	57
122BA 58				8.259	(23-)	58
122BA 59				8.328	(24+)	59
122BA 60				8.467	(22-)	60

122BA 61				9.033	(23-)	61
122BA 62				9.084	(24-)	62
122BA 63				9.362	(25-)	63
122BA 64				9.496	(26+)	64
122BA 65				9.612	(24-)	65
122BA 66				10.750	(28+)	66
122BA 67				0+X		67
122BA 68				X+267.0		68
122BA 69				X+547.0		69
122BA 70				X+835.0		70

122BA 71				X+1118.9		71
122BA 72				X+1405.2		72
122BA 73				X+1706.4		73
122BA 74				X+2026.6		74
122BA 75				X+2369.9		75
122BA 76				X+2736.8		76
122BA 77				X+3129.8		77
122BA 78				X+3546.8		78
122BA 79				X+3991.8		79
122BA 80				X+4457.8		80

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122BA 81		X+4949.8	81
122BA 82		X+5463.8	82
122BA 83		X+6010.8	83

S-p = 4.796 (0.031)-----
S-n = 11.935 (0.145)-----
S-2p = 7.014 (0.030)-----
S-2n = 21.863 (0.301)-----
S-alpha= -1.045 (0.030)-----

S+p = 0.000 (0.000)
S+n = -9.117 (0.030)
S+2p = 0.000 (0.000)
S+2n = -20.624 (0.031)
S+alpha = 1.363 (0.040)

gap p = 0.000 (0.000)
gap n = 2.818 (0.148)
gap 2p = 0.000 (0.000)
gap 2n = 1.239 (0.303)
gap alpha = 0.318 (0.050)