

^{137}Ba $Z = 56$ $N = 81$ adopted link ENSDF link

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

BE = 1149.681 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2	
137BA 1	0.000	3/2+			1 STABLE	
137BA 2	0.284	1/2+			2	
137BA 3			0.662	11/2-	3 2.552 M 1	
137BA 4				0.907	4	
137BA 5				1.044	5	
137BA 6	1.252	7/2+			6 0.354 PS 24	
137BA 7	1.294	5/2+			7	
137BA 8	1.464	3/2+			8	
137BA 9				1.482	(3/2+,5/2+)	9
137BA 10			1.798	7/2-	10	
137BA 11	1.838	1/2+			11	
137BA 12				1.857	(1/2+)	12
137BA 13				1.892		13
137BA 14	1.899	3/2+			14	
137BA 15	1.908	3/2+			15	
137BA 16				2.041	(5/2+)	16
137BA 17				2.047		17
137BA 18				2.117		18
137BA 19			2.182	3/2-	19	
137BA 20	2.229	7/2+			20	
137BA 21				2.230	(13/2-)	21
137BA 22				2.271	(3/2+,5/2)	22
137BA 23				2.311		23
137BA 24				2.340	7/2+,9/2+	24
137BA 25				2.344		25
137BA 26				2.349	(17/2-)	26 0.59 US 10
137BA 27				2.356	1/2,3/2	27
137BA 28				2.373		28
137BA 29				2.408		29
137BA 30				2.427		30
137BA 31				2.439		31
S-alpha=	2.503 (0.002)					
137BA 32	2.530	7/2+			32	
137BA 33				2.571	33	
137BA 34				2.590	34	
137BA 35				2.624	(19/2)	35 30 NS LE
137BA 36				2.653	36	
137BA 37			2.663	1/2-	37	

137BA 38				2.709		38
137BA 39				2.750		39
137BA 40				2.810	(5/2-,7/2-)	40

137BA 41				2.848	5/2-,7/2-	41
137BA 42				2.874	(5/2)-	42
137BA 43				2.905	5/2-,7/2-	43
137BA 44				2.954		44
137BA 45				2.965	1/2,3/2	45
137BA 46				2.990	7/2+,9/2+	46
137BA 47				3.008		47
137BA 48				3.037		48
137BA 49				3.074		49
137BA 50				3.086	1/2,3/2	50

137BA 51				3.094		51
137BA 52				3.127	1/2,3/2	52
137BA 53				3.140		53
137BA 54				3.141	(9/2)-	54
137BA 55				3.179		55
137BA 56				3.221	1/2,3/2	56
137BA 57				3.228	5/2-,7/2-	57
137BA 58				3.244		58
137BA 59				3.251		59
137BA 60				3.279		60

137BA 61				3.317	1/2-,3/2-	61
137BA 62				3.332	(5/2)-	62
137BA 63				3.383		63
137BA 64		3.403	3/2-			64
137BA 65				3.420		65
137BA 66				3.453		66
137BA 67				3.473		67
137BA 68				3.496	5/2-,7/2-	68
137BA 69				3.525		69
137BA 70				3.550	7/2+,9/2+	70

137BA 71				3.563		71
137BA 72				3.591	5/2-,7/2-	72
137BA 73				3.606		73
137BA 74				3.640	5/2-,7/2-	74
137BA 75				3.681	1/2-,3/2-	75
137BA 76				3.703	5/2-,7/2-	76
137BA 77				3.721	1/2,3/2	77
137BA 78				3.761		78
137BA 79				3.778		79
137BA 80				3.799	(1/2-,3/2-)	80

137BA 81				3.822		81
137BA 82				3.827	5/2-,7/2-	82

137BA 83				3.846		83
137BA 84				3.850	1/2,3/2	84
137BA 85				3.857	1/2,3/2	85
137BA 86				3.894		86
137BA 87				3.940		87
137BA 88				3.963	1/2,3/2	88
137BA 89				3.977	1/2,3/2	89
137BA 90				3.981		90

137BA 91				4.150	1/2+,3/2	91
137BA 92				4.206	1/2,3/2	92
137BA 93				4.216	1/2,3/2	93
137BA 94				4.551	1/2,3/2	94
137BA 95				4.595	1/2,3/2	95
137BA 96				4.764	1/2,3/2	96

S-p = 8.672 (0.002)-----
S-n = 6.906 (0.000)-----
S-2p = 15.886 (0.004)-----
S-2n = 16.014 (0.000)-----
S-alpha= 2.503 (0.002)-----

S+p = -6.081 (0.000)
S+n = -8.612 (0.000)
S+2p = -13.814 (0.002)
S+2n = -13.335 (0.000)
S+alpha = -0.134 (0.001)

gap p = 2.591 (0.002)
gap n = -1.706 (0.000)
gap 2p = 2.072 (0.004)
gap 2n = 2.678 (0.000)
gap alpha = 2.369 (0.003)