

^{204}Pb $Z = 82$ $N = 122$ [link to full NNDC output](#)

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

BE = 1607.506 (0.001) MeV

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

S-alpha=	-1.969	(0.001)			
204PB 1	0.000	0+			1 1.4E+17 Y GE
204PB 2	0.899	2+			2 2.88 PS 3
204PB 3	1.274	4+			3 265 NS 6
204PB 4	1.351	2+			4
204PB 5	1.563	4+			5
204PB 6	1.583	0+			6 65 PS 20
204PB 7	1.583	2+			7
204PB 8	1.605	3+			8
204PB 9	1.665	2+			9
204PB 10				1.681 1(+)	10

204PB 11				1.712 (3+)	11
204PB 12	1.730	0+			12 20 PS LT
204PB 13	1.761	2+			13
204PB 14	1.818	4+			14
204PB 15				1.872 1	15
204PB 16				1.933 1	16
204PB 17	1.948	3+			17
204PB 18				1.960 (2)+	18
204PB 19	2.065	5+			19
204PB 20	2.105	2+			20

204PB 21				2.158 (4+)	21
204PB 22			2.186 9-		22 66.93 M 10
204PB 23				2.202 (2,3,4+)	23
204PB 24				2.238 5,6	24
204PB 25			2.258 5-		25
204PB 26			2.264 7-		26 0.45 US +10-3
204PB 27				2.269 1,2+	27
204PB 28	2.304	3+			28
204PB 29				2.312 1	29
204PB 30	2.316	2+			30

204PB 31				2.338 (4)-	31
204PB 32	2.386	5+			32
204PB 33				2.400 1+,2+,3+	33
204PB 34			2.405 7-		34
204PB 35				2.409 3	35
204PB 36	2.433	0+			36
204PB 37			2.434 6-		37

204PB 38						2.475	1,2,3,4+	38
204PB 39				2.480	6-			39
204PB 40		2.491	3+					40

204PB 41				2.507	5-			41
204PB 42						2.514	(4)	42
204PB 43						2.525	(1,2,3)	43
204PB 44						2.547		44
204PB 45						2.550	2+,3	45
204PB 46						2.592	1,2,3	46
204PB 47				2.621	3-			47
204PB 48						2.627	(5+)	48
204PB 49						2.655	1,2+,3	49
204PB 50		2.666	2+					50

204PB 51				2.697	7-			51
204PB 52		2.719	5+					52
204PB 53						2.732	5-,6-,7-	53
204PB 54						2.732	1,2,3	54
204PB 55						2.767	(2+,3,4)	55
204PB 56		2.808	6+					56
204PB 57						2.829		57
204PB 58						2.862	(5-,6,7)	58
204PB 59						2.887	2,3	59
204PB 60						2.890	(5-,6-)	60

204PB 61		2.897	4+					61
204PB 62				2.913	5-			62
204PB 63				2.920	5-			63
204PB 64						2.928	(5,6,7)-	64
204PB 65				2.929	5-			65
204PB 66						2.942	(4-,5-,6-)	66
204PB 67				2.946	10-			67
204PB 68						3.023	(5,6)-	68
204PB 69				3.029	5-			69
204PB 70						3.050		70

204PB 71				3.092	5-			71
204PB 72				3.105	6-			72
204PB 73						3.147	(2)+	73
204PB 74				3.170	5-			74
204PB 75				3.192	11-			75
204PB 76						3.199	5-,6,7-	76
204PB 77		3.215	5+					77
204PB 78						3.226	(2)+	78
204PB 79				3.232	5-			79
204PB 80				3.302	5-			80

204PB 81						3.377	1	81
204PB 82				3.398	6-			82

204PB 83				3.420	(3)-	83
204PB 84				3.425	5-,6-	84
204PB 85				3.450	(10)+	85
204PB 86		3.516	12+			86
204PB 87				3.570		87
204PB 88			3.638	6-		88
204PB 89				3.656	1	89
204PB 90				3.719		90

204PB 91				3.733	6-,7-	91
204PB 92				3.769	5-,6-	92
204PB 93			3.782	5-		93
204PB 94				3.810	(2)+	94
204PB 95				3.843	(5,6+)	95
204PB 96				3.877	(5-,6+)	96
204PB 97				3.892	5-,6-	97
204PB 98		3.893	2+			98 17 FS 3
204PB 99				3.949	(6)+	99
204PB 100				3.996	(5,6+)	100

204PB 101				3.998	(5,6,7)-	101
204PB 102				4.033	(5,6+)	102
204PB 103				4.039	(5,6+)	103
204PB 104				4.068	(5-,6+)	104
204PB 105				4.076	(5)-	105
204PB 106				4.081	(5,6+)	106
204PB 107			4.094	6-		107
204PB 108				4.111	(5)-	108
204PB 109			4.115	6-		109
204PB 110				4.130	(5,6)	110

204PB 111		4.135	14+			111
204PB 112				4.140		112
204PB 113			4.166	5-		113
204PB 114				4.172	(5,6+)	114
204PB 115			4.184	6-		115
204PB 116				4.190		116
204PB 117				4.230	(5,6)	117
204PB 118				4.244	(5,6+)	118
204PB 119				4.250	(5,6+)	119
204PB 120			4.286	6-		120

204PB 121				4.290		121
204PB 122		4.302	15+			122
204PB 123				4.340		123
204PB 124		4.379	2+			124 4.0 FS 4
204PB 125				4.460		125
204PB 126				4.530		126
204PB 127				4.596	1	127
204PB 128				4.620		128

204PB 129				4.650		129
204PB 130				4.853	(11)-	130

204PB 131	4.888	16+				131
204PB 132				4.922	1	132
204PB 133				4.933	1	133
204PB 134				4.980	1	134
204PB 135				5.000	(6)+	135
204PB 136				5.012	1	136
204PB 137				5.100	(9)-	137
204PB 138				5.283	(1,2+)	138
204PB 139	5.349	16+				139
204PB 140				5.366	(1,2+)	140

204PB 141				5.399	1	141
204PB 142				5.520	(9)-	142
204PB 143				5.610	(1,2+)	143
204PB 144			5.665	17-		144
204PB 145				5.675	(1,2+)	145
204PB 146				5.777	1	146
204PB 147				5.796	1	147
204PB 148				5.811	1	148
204PB 149				5.828	1	149
204PB 150				5.839	1	150

204PB 151				5.878	(1,2+)	151
204PB 152				5.891	(1,2+)	152
204PB 153				5.910	(9)-	153
204PB 154				5.944	(1,2+)	154
204PB 155				5.968	1	155
204PB 156				5.981	1	156
204PB 157				5.998	(1,2+)	157
204PB 158				6.009	1	158
204PB 159				6.020	1	159
204PB 160				6.054	1	160

204PB 161				6.067	1	161
204PB 162				6.073	17	162
204PB 163				6.074	1	163
204PB 164				6.084	(1,2+)	164
204PB 165			6.098	19-		165
204PB 166				6.105	(1,2+)	166
204PB 167				6.148	1	167
204PB 168				6.161	(1,2+)	168
204PB 169				6.194	1	169
204PB 170				6.210	(1,2+)	170

204PB 171				6.229	(1,2+)	171
204PB 172				6.254	1	172
204PB 173				6.277	1	173

204PB 174			6.323	1	174
204PB 175			6.411	1	175
204PB 176			6.420	(1,2+)	176
204PB 177			6.457	(1,2+)	177
204PB 178			6.469	(1,2+)	178
S-p = 6.637 (0.002)-----					
204PB 179			7.402	(20)	179
204PB 180			7.849	(21)	180

204PB 181			8.126	(22)	181

S-p = 6.637 (0.002)-----
 S-n = 8.395 (0.007)-----
 S-2p = 12.342 (0.001)-----
 S-2n = 15.312 (0.004)-----
 S-alpha= -1.969 (0.001)-----

S+p = -3.244 (0.005)
 S+n = -6.732 (0.002)
 S+2p = -7.657 (0.004)
 S+2n = -14.818 (0.002)
 S+alpha = 5.215 (0.002)

gap p = 3.394 (0.006)
 gap n = 1.663 (0.007)
 gap 2p = 4.686 (0.004)
 gap 2n = 0.494 (0.004)
 gap alpha = 3.247 (0.002)