

^{61}Co $Z = 27$ $N = 34$ [link to full NNDC output](#)

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

BE = 534.125 (0.001) MeV

Qbeta- = 1.324 (0.001) MeV

	Energy T	J+	J-	J-other	T1/2
61CO	1		0.000	7/2-	1 1.649 H 5
61CO	2		1.027	3/2-	2
61CO	3			1.205 (3/2)-	3
61CO	4			1.272	4
61CO	5			1.286 (9/2)-	5 0.55 PS 14
61CO	6			1.325 (1/2-)	6
61CO	7			1.619 5/2-, 7/2-	7
61CO	8			1.631 (5/2, 7/2)-	8
61CO	9			1.646 (3/2-, 5/2)	9
61CO	10			1.664 (11/2-)	10 7 PS +7-2
61CO	11			1.674 (7/2)-	11
61CO	12			1.889 (5/2, 7/2)-	12
61CO	13			1.953 1/2-, 3/2-	13
61CO	14			2.011 (3/2, 5/2)-	14
61CO	15			2.231 (5/2, 7/2)-	15
61CO	16	2.238	1/2+		16
61CO	17			2.303 1/2-, 3/2-	17
61CO	18			2.339 (11/2-)	18 1.7 PS +4-3
61CO	19			2.345 5/2-, 7/2-	19
61CO	20			2.374 (1/2:15/2)-	20
61CO	21			2.374 (13/2-)	21
61CO	22			2.431 (3/2, 5/2)-	22
61CO	23			2.448 5/2-, 7/2-	23
61CO	24			2.484 (3/2, 5/2)-	24
61CO	25			2.499 (3/2+, 5/2+)	25
61CO	26			2.559 (3/2+)	26
61CO	27			2.572 3/2+, 5/2+	27
61CO	28			2.642 (3/2:11/2)-	28
61CO	29			2.707 (3/2:11/2)-	29
61CO	30			2.727	30
61CO	31			2.754 (3/2-, 5/2)	31
61CO	32			2.780	32
61CO	33			2.864 (3/2, 5/2)-	33
61CO	34			2.893 5/2-, 7/2-	34
61CO	35			2.920 (3/2-, 5/2)	35
61CO	36			2.953 (3/2:11/2)-	36
61CO	37			2.980	37

61C0	38				3.000	(3/2,5/2)-	38
61C0	39				3.026	3/2+,5/2+	39
61C0	40				3.028	5/2-,7/2-	40

61C0	41				3.077	(3/2:11/2)-	41
61C0	42				3.104	(1/2,3/2,5/2)	42
61C0	43				3.117	(3/2+,5/2+)	43
61C0	44				3.127	(15/2-)	44
61C0	45				3.130	(3/2:11/2)-	45
61C0	46				3.152		46
61C0	47				3.176		47
61C0	48				3.191	(3/2-,5/2)	48
61C0	49		3.197	7/2-			49
61C0	50				3.205	(3/2-,5/2-)	50

61C0	51				3.218	3/2+,5/2+	51
61C0	52				3.239	(3/2-,5/2)	52
61C0	53		3.252	7/2-			53
61C0	54				3.349		54
61C0	55				3.357	(1/2:13/2)	55
61C0	56				3.365	(3/2-,5/2)	56
61C0	57				3.384		57
61C0	58				3.397		58
61C0	59				3.410		59
61C0	60				3.417	(9/2-,11/2-)	60

61C0	61				3.428	(9/2-,11/2-)	61
61C0	62		3.445	7/2-			62
61C0	63				3.471	(3/2,5/2)	63
61C0	64				3.472	(13/2-)	64
61C0	65				3.485	(3/2:11/2)-	65
61C0	66				3.493	5/2-,7/2-	66
61C0	67		3.514	7/2-			67
61C0	68				3.536	(5/2,7/2)	68
61C0	69				3.565		69
61C0	70				3.575	(3/2:11/2)-	70

61C0	71				3.600	(1/2+,5/2-,7/2-)	71
61C0	72				3.609	(3/2:13/2)	72
61C0	73				3.654	(3/2:11/2)-	73
61C0	74				3.658	(15/2)-	74
61C0	75				3.660	(3/2:17/2)+	75
61C0	76				3.691	(3/2:13/2)+	76
61C0	77				3.700	(1/2:15/2)-	77
61C0	78				3.728	(5/2:11/2)-	78
61C0	79				3.753	(3/2:11/2)-	79
61C0	80				3.758		80

61C0	81				3.775	(5/2,7/2)	81
61C0	82				3.806	5/2-,7/2-	82

61C0 83				3.815	(3/2:11/2)	83
61C0 84				3.827		84
61C0 85				3.871	3/2+,5/2+	85
61C0 86				3.890	3/2+,5/2+	86
61C0 87				3.906		87
61C0 88				3.916	(3/2:13/2)+	88
61C0 89				3.924		89
61C0 90				3.937		90

61C0 91				3.965	(5/2-,7/2-)	91
61C0 92				3.987		92
61C0 93				4.002	(1/2+,5/2-,7/2-)	93
61C0 94				4.071		94
61C0 95				4.094	(17/2-)	95 0.76 PS 21
61C0 96				4.152	(7/2-)	96
61C0 97				4.211	(3/2:17/2)+	97
61C0 98				4.267	(1/2+,5/2-,7/2-)	98
61C0 99				4.282	(5/2:11/2)-	99
61C0 100		4.349	7/2-			100

61C0 101				4.382	3/2+,5/2+	101
61C0 102		4.389	7/2-			102
61C0 103				4.455	3/2+,5/2+	103
61C0 104		4.499	7/2-			104
61C0 105				4.534	(5/2:11/2)-	105
61C0 106				4.622	(3/2:11/2)-	106
61C0 107				4.656	3/2+,5/2+	107
61C0 108				4.671	(5/2:11/2)-	108
61C0 109				4.753	3/2+,5/2+	109
61C0 110				4.766	(3/2:11/2)-	110

61C0 111				4.802	(19/2-)	111
61C0 112				4.838	(5/2:11/2)-	112
61C0 113				4.911	(5/2:11/2)-	113
61C0 114				4.960	(5/2)+	114
61C0 115				4.990	3/2+,5/2+	115
61C0 116				5.061	(3/2,5/2,7/2)	116
61C0 117				5.081	(3/2:11/2)-	117
61C0 118				5.150	(3/2,5/2,7/2)	118
61C0 119				5.164	+	119
61C0 120				5.214	(3/2:13/2)	120

61C0 121				5.271	(3/2:13/2)+	121
61C0 122				5.321	(5/2,7/2,9/2)	122
61C0 123				5.388	(3/2:11/2)-	123

S-alpha=	7.837	(0.002)	-----			
S-p	=	8.774	(0.004)	-----		
S-n	=	9.319	(0.001)	-----		

61C0 124				9.320	9/2+,11/2+	124
61C0 125				9.321	9/2+,11/2+	125

61C0 126				9.321	9/2+,11/2+	126
61C0 127				9.322	9/2+,11/2+	127

S-p = 8.774 (0.004)-----
 S-n = 9.319 (0.001)-----
 S-2p = 21.951 (0.002)-----
 S-2n = 16.811 (0.001)-----
 S-alpha= 7.837 (0.002)-----

S+p = -11.137 (0.001)
 S+n = -6.597 (0.019)
 S+2p = -17.260 (0.001)
 S+2n = -15.096 (0.019)
 S+alpha = -6.791 (0.001)

gap p = -2.363 (0.004)
 gap n = 2.722 (0.019)
 gap 2p = 4.691 (0.003)
 gap 2n = 1.715 (0.019)
 gap alpha = 1.046 (0.002)