

^{63}Co $Z = 27$ $N = 36$ [link to full NNDC output](#)

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

BE = 549.221 (0.019) MeV

Qbeta- = 3.661 (0.019) MeV

	Energy T	J+	J-	J-other	T1/2
63CO 1			0.000	7/2-	1 27.4 S 5
63CO 2			0.995	3/2-	2 10 PS GT
63CO 3				1.384 (9/2-)	3
63CO 4				1.427 (7/2-,5/2-)	4
63CO 5				1.495 (3/2-)	5
63CO 6				1.577	6
63CO 7				1.674 (11/2-)	7
63CO 8				1.888 (1/2,3/2)-	8
63CO 9				2.078 (5/2,7/2)-	9
63CO 10			2.129	7/2-	10 155 FS +34-26
63CO 11	2.191	1/2+			11 47 FS +45-21
63CO 12			2.330	7/2-	12 143 FS +22-16
63CO 13				2.375 (5/2,7/2,9/2)-	13 136 FS +108-45
63CO 14				2.473 (5/2,7/2)-	14
63CO 15				2.539 (11/2-)	15
63CO 16				2.689 3/2+,5/2+	16 238 FS +54-41
63CO 17				2.794 (5/2,7/2)-	17
63CO 18				2.882 (1/2,3/2)-	18
63CO 19				2.932 7/2-,5/2-	19
63CO 20				3.007 (13/2-)	20
63CO 21				3.034 (13/2)	21
63CO 22				3.037 5/2,7/2-	22
63CO 23				3.133 (5/2-,7/2-)	23 0.15 PS +10-5
63CO 24				3.180 5/2-,7/2-	24 56 FS +13-10
63CO 25				3.204 (15/2)-	25
63CO 26				3.226 (15/2-)	26
63CO 27				3.413 (3/2,5/2)+	27 41 FS +41-20
63CO 28				3.422 (7/2,5/2)-	28
63CO 29				3.581 (17/2)-	29 1.2 PS +6-3
63CO 30				3.602 (5/2,7/2)-	30
63CO 31				3.611 (17/2-)	31 0.7 PS +2-1
63CO 32				3.676 (5/2,7/2)-	32
63CO 33				3.766 (5/2,7/2)-	33
63CO 34				3.893 (3/2+,5/2+)	34
63CO 35				3.985 (5/2,7/2)-	35
63CO 36				4.039 3/2+,5/2+	36
63CO 37				4.094 (3/2+,5/2+)	37

63C0	38			4.127	(3/2+,5/2+)	38
63C0	39			4.167	(19/2)-	39 0.21 PS
63C0	40			4.234	(3/2+,5/2+)	40

63C0	41			4.376	(3/2+,5/2+)	41
63C0	42			4.453	(3/2+,5/2+)	42
63C0	43			4.524	(3/2+,5/2+)	43
63C0	44			4.538	(3/2+,5/2+)	44
63C0	45			4.588	(3/2+,5/2+)	45
63C0	46			4.700	(3/2+,5/2+)	46
63C0	47			4.722	(3/2+,5/2+)	47
63C0	48			4.820	(3/2+,5/2+)	48
63C0	49			4.886	(3/2+,5/2+)	49
63C0	50			4.968	(3/2+,5/2+)	50

63C0	51			5.010	(3/2+,5/2+)	51
63C0	52			5.080	(3/2+,5/2+)	52
63C0	53			5.215	(3/2+,5/2+)	53
63C0	54			5.294	(3/2+,5/2+)	54
63C0	55			5.342	(3/2+,5/2+)	55
63C0	56			5.457	(3/2+,5/2+)	56
63C0	57			5.659	3/2+,5/2+	57

S-p = 10.262 (0.019)-----
 S-n = 8.499 (0.026)-----
 S-2p = 24.687 (0.019)-----
 S-2n = 15.096 (0.019)-----
 S-alpha= 8.751 (0.019)-----

S+p = -12.536 (0.019)
 S+n = -6.012 (0.027)
 S+2p = -19.990 (0.019)
 S+2n = -13.476 (0.019)
 S+alpha = -7.893 (0.019)

gap p = -2.274 (0.026)
 gap n = 2.486 (0.038)
 gap 2p = 4.697 (0.026)
 gap 2n = 1.620 (0.026)
 gap alpha = 0.858 (0.026)