

$^{66}\text{Cu}$        $Z = 29$        $N = 37$       adopted link      ENSDF link

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

BE = 576.277 ( 0.001) MeV

Qbeta- = 2.641 ( 0.001) MeV

	Energy T	J+	J-	J-other	T1/2
66CU 1	0.000	1+			1 5.120 M 14
66CU 2	0.186	2+			2
66CU 3				0.238	3
66CU 4	0.275	3+			4
66CU 5				0.386 (1+)	5
66CU 6	0.465	2+			6
66CU 7	0.591	4+			7
66CU 8				0.679	8
66CU 9	0.730	3+			9
66CU 10	0.823	2+			10
66CU 11				0.884	11
66CU 12				0.916	12
66CU 13				1.008	13
66CU 14	1.017	3+			14
66CU 15	1.052	1+			15
66CU 16				1.154 (6)-	16 600 NS 20
66CU 17				1.158 (2+,3)	17
66CU 18				1.213 1+,2+	18
66CU 19			1.247 4-		19
66CU 20	1.344	1+			20
66CU 21	1.432	1+			21
66CU 22				1.439 (1+,2,3+)	22
66CU 23				1.498	23
66CU 24				1.547 1+,2+,3+	24
66CU 25				1.560 +	25
66CU 26				1.577 1+,2+,3+	26
66CU 27				1.630 1-,2-	27
66CU 28				1.678 1+,2+	28
66CU 29				1.694 (1)+	29
66CU 30				1.713 (1+)	30
66CU 31				1.736 (4,5)-	31
66CU 32				1.746 (1,2)	32
66CU 33	1.820	1+			33
66CU 34				1.879	34
66CU 35				1.894 1-,2-	35
66CU 36				1.911	36
66CU 37				1.927 1+,2+	37

66CU 38			1.971	2-			38
66CU 39					2.018	1+,2+,3+	39
66CU 40					2.023	(1,2)	40
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66CU 41			2.124	2-			41
66CU 42					2.163	-	42
66CU 43					2.166	+	43
66CU 44					2.195		44
66CU 45					2.261		45
66CU 46					2.329		46
66CU 47					2.347		47
66CU 48					2.364		48
66CU 49					2.395		49
66CU 50					2.449		50
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66CU 51					2.453	(1+,2,3+)	51
66CU 52					2.503	(2+,3+)	52
66CU 53					2.521	2-,3-,4-	53
66CU 54					2.537	0+,1+	54
66CU 55			2.560	2-			55
66CU 56					2.567	(5)+	56
66CU 57					2.586		57
66CU 58					2.597		58
66CU 59					2.609		59
66CU 60					2.629	3+,4+	60
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66CU 61					2.644	(1,2)-	61
66CU 62					2.664	1-,2-	62
66CU 63		2.681	1+				63
66CU 64					2.688	(1+)	64
66CU 65					2.707	3+,4+,5+	65
66CU 66					2.739	2-,3-,4-	66
66CU 67					2.768	(1)+	67
66CU 68					2.800	(2)-	68
66CU 69					2.814	1-,2-	69
66CU 70					2.845	1-,2-	70
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66CU 71					2.868	0+,1+	71
66CU 72					2.903	(3)+	72
66CU 73					2.943	(1-,2-)	73
66CU 74					2.949	(1-,2-)	74
66CU 75					2.953	(1,2)-	75
66CU 76					2.988		76
66CU 77					3.010	3+,4+,5+	77
66CU 78					3.026	(1-,2-)	78
66CU 79					3.046	(1-,2-)	79
66CU 80					3.049		80
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66CU 81					3.077	(1-,2-)	81
66CU 82					3.091	(1-,2-)	82

66CU 83			3.099	(2+,3,4+)	83
66CU 84			3.111		84
66CU 85			3.142		85
66CU 86			3.152		86
66CU 87			3.166	(1,2,3)+	87
66CU 88			3.209		88
66CU 89			3.248		89
66CU 90			3.287	+	90
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66CU 91			3.334	+	91
66CU 92			3.342		92
66CU 93			3.371		93
66CU 94			3.398		94
66CU 95			3.432		95
66CU 96			3.479		96
66CU 97			3.487	(2+,3+)	97
66CU 98			3.509	(2+,3,4+)	98
66CU 99			3.535		99
66CU 100			3.559		100
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66CU 101			3.584		101
66CU 102			3.601		102
66CU 103			3.637	1-,2-	103
66CU 104			3.672		104
66CU 105			3.705	2-,3-,4-	105
66CU 106			3.710	(9+)	106
66CU 107			3.750		107
66CU 108			3.780		108
66CU 109			3.815	1-,2-	109
66CU 110			3.875		110
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66CU 111			3.890	(7+)	111
66CU 112			3.896	(2-)	112
66CU 113			3.935	(1-,2-)	113
66CU 114			4.014	(1+,2,3+)	114
66CU 115			4.057	(1,2)-	115
66CU 116			4.080		116
66CU 117			4.116		117
66CU 118			4.180	(7+)	118
66CU 119			4.250	(1,2)-	119
66CU 120			4.300		120
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66CU 121			4.463	(1,2)-	121
66CU 122			4.528	(1,2)-	122
66CU 123			4.851		123
66CU 124			5.077		124

S-p = 8.421 ( 0.001)-----  
S-n = 7.066 ( 0.001)-----

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S-2p = 21.044 ( 0.020)-----  
S-2n = 16.977 ( 0.001)-----  
S-alpha= 7.259 ( 0.019)-----  
  
S+p = -8.911 ( 0.001)  
S+n = -9.133 ( 0.001)  
S+2p = -15.406 ( 0.002)  
S+2n = -15.451 ( 0.002)  
S+alpha = -5.077 ( 0.001)  
  
gap p = -0.490 ( 0.001)  
gap n = -2.067 ( 0.001)  
gap 2p = 5.638 ( 0.020)  
gap 2n = 1.525 ( 0.002)  
gap alpha = 2.182 ( 0.019)
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