

^{57}Ni $Z = 28$ $N = 29$ adopted link ENSDF link

Based on ensdf_240402 (Apr 2024), and mass evaluation from 2020

BE = 494.243 (0.001) MeV

Qbeta+ = 3.262 (0.001) MeV

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

57NI	1			0.000	3/2-	1	35.60 H 6
57NI	2			0.768	5/2-	2	3.2 PS 4
57NI	3			1.113	1/2-	3	106 FS 23
57NI	4			2.443	5/2-	4	31 FS 5
57NI	5			2.577	1/2 7/2-	5	47 FS 6
57NI	6			3.007	3/2-	6	12 FS 4
57NI	7					3.009	7/2+,9/2+ 7
57NI	8			3.230	7/2-		8
57NI	9					3.311	(5/2-,7/2 9
57NI	10			3.364	7/2-		10

57NI	11			3.702	(5/2)-		11
57NI	12	3.714	(+)				12
57NI	13	3.729	(+)				13
57NI	14			3.840	3/2-		14
57NI	15			3.866	11/2-		15 0.29 PS 10
57NI	16					3.882	- 16
57NI	17					4.027	17
57NI	18					4.046	(7/2-,5/2 18
57NI	19					4.073	- 19
57NI	20			4.234	1/2 7/2-		20

57NI	21					4.372	3/2+,5/2+ 21
57NI	22					4.374	- 22
57NI	23			4.461	(3/2)-		23
57NI	24					4.503	24
57NI	25	4.544	1/2 (9/2+)				25
57NI	26			4.576	7/2-		26
57NI	27					4.606	- 27
57NI	28			4.711	(11/2-)		28
57NI	29					4.886	7/2-,5/2- 29
57NI	30			4.927	3/2-		30

57NI	31					4.941	31
57NI	32					5.009	32
57NI	33					5.092	3/2-,1/2- 33
57NI	34			5.134	3/2 7/2-		34
57NI	35			5.193	3/2-		35
57NI	36			5.239	3/2 7/2-		36

57NI 37			5.321	15/2-			37	0.64 PS	17
57NI 38						5.352			38
57NI 39			5.368	3/2 7/2-					39
57NI 40						5.435			40

57NI 41						5.488			41
57NI 42						5.505			42
57NI 43						5.515			43
57NI 44		5.546	(+)						44
57NI 45		5.561	(+)						45
57NI 46		5.580	1/2 1/2+						46
57NI 47						5.601			47
57NI 48						5.646			48
57NI 49						5.663			49
57NI 50						5.664	3/2-,1/2-		50

57NI 51						5.706	7/2-,5/2-		51
57NI 52						5.740			52
57NI 53			5.765	(7/2)-					53
57NI 54						5.795	7/2-,5/2-		54
57NI 55						5.848	7/2-,5/2-		55
57NI 56		5.980	(3/2)+						56
57NI 57						6.029	3/2+,5/2+		57
57NI 58						6.079			58
57NI 59						6.115	7/2-,5/2-		59
57NI 60						6.231	3/2-,1/2-		60

57NI 61						6.280	7/2-,5/2-		61
57NI 62						6.318	3/2+,5/2+		62
57NI 63						6.328			63
57NI 64						6.341			64
57NI 65						6.418	7/2-,5/2-		65
57NI 66						6.421			66
57NI 67						6.454	-		67
57NI 68			6.475	(9/2-)					68
57NI 69						6.520	7/2-,5/2-		69
57NI 70						6.546	3/2-,1/2-		70

57NI 71						6.592	3/2-,1/2-		71
57NI 72						6.631	-		72
57NI 73						6.655	3/2+,5/2+		73
57NI 74						6.693	1/2-,3/2-		74
57NI 75						6.721	3/2+,5/2+		75
57NI 76						6.807			76
57NI 77						6.851	7/2-,5/2-		77
57NI 78						6.880	7/2-,5/2-		78
57NI 79						6.905	-		79
57NI 80						6.920			80

57NI 81						6.935	-		81

57NI 82				6.955 3/2 (3/2)-				82	
57NI 83						7.005		83	
57NI 84						7.042 3/2-,1/2-		84	
57NI 85				7.131 3/2 7/2-				85	
57NI 86						7.194 3/2+,5/2+		86	
57NI 87						7.275 3/2+,5/2+		87	
57NI 88						7.313 3/2+,5/2+		88	
S-p =		7.332 (0.001)		-----					
57NI 89						7.355		89	
57NI 90						7.416		90	

57NI 91						7.452 3/2+,5/2+		91	
57NI 92						7.455		92	
57NI 93						7.529 3/2+,5/2+		93	
57NI 94						7.551		94	
S-alpha=		7.561 (0.002)		-----					
57NI 95				7.580 3/2 (7/2)-				95	
57NI 96						7.640		96	
57NI 97						7.671		97	
57NI 98						7.700 (3/2+,5/2		98	
57NI 99						7.745		99	
57NI 100						7.802 3/2+,5/2+100			

57NI 101						7.872 (3/2+,5/2101			
57NI 102						7.900		102	
57NI 103						7.985 7/2-,5/2-103			
57NI 104						8.015 3/2+,5/2+104			
57NI 105						8.062		105	
57NI 106						8.102 3/2+,5/2+106			
57NI 107						8.130 3/2+,5/2+107			
57NI 108						8.170		108	
57NI 109						8.234 3/2+,5/2+109			
57NI 110		8.287 1/2 1/2+						110	

57NI 111						8.325 (3/2+,5/2111			
57NI 112						8.346		112	
57NI 113						8.380		113	
57NI 114						8.410		114	
57NI 115						8.445 (5/2+,3/2115			
57NI 116				8.477 (-)				116	
57NI 117		8.521 (3/ 1/2+						117	
57NI 118						8.541 (5/2-,7/2118			
57NI 119						8.630		119	
57NI 120						8.668 5/2+,3/2+120			

57NI 121		8.723 1/2+						121	
57NI 122						8.759		122	
57NI 123						8.780		123	
57NI 124						8.795 (5/2+,3/2124			
57NI 125						8.840 3/2+,5/2+125			

57NI 126			8.872	-	126
57NI 127			8.952	5/2+,3/2+	127
57NI 128			9.030		128
57NI 129			9.110	(7/2-,5/2)	129
57NI 130			9.150		130

57NI 131			9.185	(5/2+,3/2)	131
57NI 132			9.205		132
57NI 133			9.280	5/2+,3/2+	133
57NI 134			9.340		134
57NI 135			9.400	5/2+,3/2+	135
57NI 136			9.430	5/2+,3/2+	136
57NI 137			9.495		137
57NI 138			9.585	5/2+,3/2+	138
57NI 139			9.705		139
57NI 140			9.790		140

57NI 141			9.865	5/2+,3/2+	141
57NI 142			9.930	5/2+,3/2+	142
57NI 143			10.020		143
57NI 144			10.070		144
57NI 145			10.115		145
57NI 146			10.175		146
57NI 147			10.210	5/2+,3/2+	147
57NI 148			10.240	5/2+,3/2+	148

S-n	=	10.248	(0.001)	-----	
57NI 149			10.335		149
57NI 150			10.375		150

57NI 151			10.515	5/2+,3/2+	151
57NI 152			10.695		152
57NI 153			10.790	5/2+,3/2+	153
57NI 154			11.120	(5/2+,3/2)	154
57NI 155			11.155	5/2+,3/2+	155
57NI 156			11.195	5/2+,3/2+	156
57NI 157			11.235		157
57NI 158			11.280		158
57NI 159			11.500		159
57NI 160			12.120		160

57NI 161			13.090		161
57NI 162			13.140		162

S-2p	=	13.181	(0.001)	-----	
57NI 163			13.300		163

S-p	=	7.332	(0.001)	-----	
S-n	=	10.248	(0.001)	-----	
S-2p	=	13.181	(0.001)	-----	
S-2n	=	26.891	(0.001)	-----	

S-alpha= 7.561 (0.002) -----

S+p = -2.873 (0.001)

S+n = -12.216 (0.001)

S+2p = -5.710 (0.001)

S+2n = -21.215 (0.001)

S+alpha = -2.690 (0.016)

gap p = 4.460 (0.001)

gap n = -1.969 (0.001)

gap 2p = 7.471 (0.001)

gap 2n = 5.675 (0.001)

gap alpha = 4.872 (0.016)