

^{117}I $Z = 53$ $N = 64$ adopted link ENSDF link

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

BE = 983.318 (0.026) MeV

Qbeta+ = 4.657 (0.029) MeV

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

S-alpha=	-1.554 (0.031)				
117I	1			0.000 (5/2)+	1 2.22 M 4
117I	2			0.059 (7/2)+	2
117I	3			0.117 (1/2)+	3
117I	4			0.161 (3/2)+	4
117I	5			0.221 (3/2)+	5
117I	6			0.316 (3/2,5/2)+	6
117I	7			0.354 (9/2)+	7 12.1 NS 7
117I	8			0.519 (7/2+)	8
117I	9			0.567	9
117I	10			0.574 (9/2+)	10

117I	11			0.619 (9/2+)	11
117I	12			0.654 (11/2)+	12
117I	13			0.660 (+)	13
117I	14			0.661 (9/2+)	14
117I	15			0.678 (11/2)-	15
117I	16			0.695 (9/2+)	16
117I	17			0.716 (11/2+)	17
117I	18			0.972 (13/2+)	18
117I	19			1.015 (15/2-)	19
117I	20			1.050	20

117I	21			1.084	21
117I	22			1.130	22
117I	23			1.174 (11/2)-	23
117I	24			1.208 (13/2+)	24
117I	25			1.317 (15/2+)	25
117I	26			1.341 (13/2+)	26
117I	27			1.450 (15/2+)	27
117I	28			1.485 (19/2)-	28
117I	29			1.622 (15/2)-	29
117I	30			1.685 (17/2+)	30

117I	31			1.721 (15/2+)	31
117I	32			1.877	32
117I	33			1.934 (17/2+)	33
117I	34			2.076 (19/2)+	34
117I	35			2.088 (23/2-)	35
117I	36			2.106 (17/2+)	36

117I	37				2.107	(19/2)-	37
117I	38				2.245	(19/2)+	38
117I	39				2.263	(17/2)+	39
117I	40				2.314	(21/2)+	40

S-p	=	2.464	(0.035)	-----		
117I	41				2.487	(21/2)+	41
117I	42				2.497	(19/2)+	42
117I	43				2.521	(19/2)+	43
117I	44				2.588	(21/2)-	44
117I	45				2.642	(23/2)-	45
117I	46				2.695	(17/2)+	46
117I	47				2.702	(21/2)+	47
117I	48				2.753	(21/2)+	48
117I	49				2.820	(27/2)-	49
117I	50				2.828	(19/2)+	50

117I	51				2.912	(23/2)-	51
117I	52				2.914	(23/2)+	52
117I	53				2.926	(21/2)+	53
117I	54				2.983	(21/2)+	54
117I	55				3.026	(23/2)+	55
117I	56				3.061	(23/2)+	56
117I	57				3.184	(23/2)+	57
117I	58				3.274	(25/2)-	58
117I	59				3.325	(25/2)+	59
117I	60				3.339	(25/2)+	60

117I	61				3.341	(23/2)+	61
117I	62				3.355	(27/2)-	62
117I	63				3.376	(25/2)+	63
117I	64				3.425	(25/2)+	64
117I	65				3.517	(27/2)+	65
117I	66				3.649	(27/2)+	66
117I	67				3.661	(31/2)-	67
117I	68				3.666	(27/2)-	68
117I	69				3.682	(27/2)+	69
117I	70				3.685	(27/2)+	70

117I	71				3.711	(27/2)+	71
117I	72				3.970	(29/2)+	72
117I	73				4.044	(29/2)+	73
117I	74				4.055	(31/2)-	74
117I	75				4.082	(29/2)-	75
117I	76				4.098	(29/2)+	76
117I	77				4.286	(31/2)+	77
117I	78				4.332	(31/2)+	78
117I	79				4.510	(31/2)+	79
117I	80				4.520	(31/2)-	80

117I	81				4.602	(35/2-)	81
117I	82				4.683	(33/2+)	82
117I	83				4.814	(35/2-)	83
117I	84				4.937	(33/2+)	84
117I	85				4.978	(33/2-)	85
117I	86				5.064	(35/2+)	86 50 NS
117I	87				5.107	(35/2+)	87
117I	88				5.398	(35/2+)	88
117I	89				5.453	(35/2-)	89
117I	90				5.493	(37/2+)	90

117I	91				5.505	(39/2+)	91
117I	92				5.627	(39/2-)	92
117I	93				5.667	(39/2-)	93
117I	94				5.769	(39/2-)	94
117I	95				5.878	(37/2+)	95
117I	96				5.940	(37/2-)	96
117I	97				5.987	(39/2+)	97
117I	98				6.274	(43/2-)	98
117I	99				6.294	(43/2+)	99
117I	100				6.393	(39/2+)	100

117I	101				6.452	(39/2-)	101
117I	102				6.635	(43/2-)	102
117I	103				6.752	(43/2-)	103
117I	104				6.934	(41/2+)	104
117I	105				6.965	(43/2+)	105
117I	106				6.971	(41/2-)	106
117I	107				7.182	(47/2+)	107
117I	108				7.243		108
117I	109				7.332	(47/2+)	109
117I	110				7.349	(47/2-)	110

117I	111				7.506	(43/2+)	111
117I	112				7.531	(43/2-)	112
117I	113				7.681	(47/2-)	113
117I	114				7.891	(47/2-)	114

S-2p	=	8.013	(0.030)	-----			
117I	115				8.029	(47/2+)	115
117I	116				8.091	(45/2-)	116
117I	117				8.100	(45/2+)	117
117I	118				8.106	(49/2)	118
117I	119				8.228	(51/2+)	119
117I	120				8.325	(51/2+)	120

117I	121				8.345	(51/2)	121
117I	122				8.363	(51/2-)	122
117I	123				8.456	(47/2+)	123
117I	124				8.696	(47/2-)	124
117I	125				8.719	(47/2+)	125

117I	126				8.755	(53/2+)	126
117I	127				8.806	(51/2-)	127
117I	128				8.860	(51/2-)	128
117I	129				9.083	(51/2-)	129
117I	130				9.175	(51/2+)	130

117I	131				9.186	(55/2+)	131
117I	132				9.263		132
117I	133				9.278	(49/2-)	133
117I	134				9.373	(49/2+)	134
117I	135				9.384		135
117I	136				9.444	(51/2+)	136
117I	137				9.936	(51/2-)	137

S-p = 2.464 (0.035)-----
S-n = 11.089 (0.079)-----
S-2p = 8.013 (0.030)-----
S-2n = 20.243 (0.039)-----
S-alpha= -1.554 (0.031)-----

S+p = -4.929 (0.028)
S+n = -8.604 (0.032)
S+2p = -6.445 (0.029)
S+2n = -19.482 (0.034)
S+alpha = 0.911 (0.029)

gap p = -2.466 (0.045)
gap n = 2.485 (0.086)
gap 2p = 1.569 (0.042)
gap 2n = 0.762 (0.051)
gap alpha = -0.642 (0.042)