

^{117}Xe $Z = 54$ $N = 63$ adopted link ENSDF link

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

BE = 976.283 (0.010) MeV

Qbeta+ = 6.253 (0.028) MeV

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

S-alpha=	-1.737	(0.030)	-----		
117XE 1				0.000 5/2(+)	1 61 S 2
117XE 2				0.205 (7/2+)	2
117XE 3				0.206 (7/2-)	3 17 NS 8
117XE 4				0.222 (5/2+)	4
117XE 5				0.230 (11/2-)	5 59 NS 20
117XE 6				0.243 5/2(-)	6
117XE 7				0.263 (7/2+)	7
117XE 8				0.271 (7/2+)	8
117XE 9		0.313	9/2-		9
117XE 10				0.365 (+)	10

117XE 11				0.393 (+)	11
117XE 12				0.439 (+)	12
117XE 13				0.508 (9/2+)	13
117XE 14				0.536 (+)	14
117XE 15				0.540 (9/2+)	15
117XE 16				0.580	16
117XE 17				0.594	17
117XE 18				0.615	18
117XE 19				0.631 (15/2-)	19
117XE 20				0.637	20

117XE 21				0.700 (13/2-)	21
117XE 22				0.713 (11/2+)	22
117XE 23				0.737	23
117XE 24				0.786	24
117XE 25				0.818 (11/2+)	25
117XE 26				0.825	26
117XE 27				0.869	27
117XE 28				0.882	28
117XE 29				0.978	29
117XE 30				0.987	30

117XE 31				0.989 (13/2+)	31
117XE 32				1.052	32
117XE 33				1.069	33
117XE 34				1.122 (13/2+)	34
117XE 35				1.197	35
117XE 36				1.212 (19/2-)	36

117XE 37				1.248	(15/2+)	37
117XE 38				1.276	(17/2-)	38
117XE 39				1.429	(15/2+)	39
117XE 40				1.508		40

117XE 41				1.554	(17/2+)	41
117XE 42				1.767	(17/2+)	42
117XE 43				1.787		43
117XE 44				1.863	(19/2+)	44
117XE 45				1.878		45
117XE 46				1.900		46
117XE 47				1.924	(23/2-)	47
117XE 48				1.971	(21/2-)	48
117XE 49				2.091	(19/2+)	49
117XE 50				2.154	(19/2+)	50

117XE 51				2.179	(21/2+)	51
117XE 52				2.425	(21/2+)	52
117XE 53				2.544	(23/2+)	53
117XE 54				2.666	(23/2+)	54
117XE 55				2.691	(21/2+)	55
117XE 56				2.741	(25/2-)	56
117XE 57				2.745	(27/2-)	57
117XE 58				2.757		58
117XE 59				2.796	(23/2+)	59
117XE 60				2.835	(25/2+)	60

117XE 61				2.974		61
117XE 62				3.049	(25/2+)	62
117XE 63				3.207	(27/2+)	63
117XE 64				3.289	(27/2+)	64
117XE 65				3.309	(27/2+)	65
117XE 66				3.492	(27/2+)	66
117XE 67				3.502	(29/2+)	67
117XE 68				3.535	(29/2-)	68
117XE 69				3.592	(29/2+)	69
117XE 70				3.648	(31/2-)	70

117XE 71				3.920	(31/2+)	71
117XE 72				3.928	(31/2+)	72
S-p =	4.054	(0.076)	-----		
117XE 73				4.069	(31/2+)	73
117XE 74				4.111		74
117XE 75				4.146		75
117XE 76				4.197	(31/2+)	76
117XE 77				4.259	(33/2+)	77
117XE 78				4.299	(33/2+)	78
117XE 79				4.308	(33/2-)	79
117XE 80				4.573	(35/2-)	80

117XE 81				4.608		81
117XE 82				4.786	(35/2+)	82
117XE 83				4.858		83
117XE 84				4.912	(35/2+)	84
117XE 85				4.923		85
117XE 86				5.111	(37/2-)	86
117XE 87				5.123	(37/2+)	87
117XE 88				5.145	(37/2+)	88
117XE 89				5.473	(39/2-)	89
117XE 90				5.822	(39/2+)	90

117XE 91				5.995	(41/2-)	91
117XE 92				6.076	(41/2+)	92
117XE 93				6.106	(41/2+)	93
117XE 94				6.407	(43/2-)	94
117XE 95				6.499		95
S-2p	=	6.701	(0.030)	-----		
117XE 96				6.792	(43/2+)	96
117XE 97				6.883		97
117XE 98				6.981	(45/2-)	98
117XE 99				7.026	(45/2+)	99
117XE 100				7.129	(45/2+)	100

117XE 101				7.414	(47/2-)	101
117XE 102				7.561		102
117XE 103				7.888	(49/2+)	103
117XE 104				8.071	(49/2-)	104
117XE 105				8.276	(49/2+)	105
117XE 106				8.430		106
117XE 107				8.503	(51/2-)	107
117XE 108				8.590		108
117XE 109				8.869	(53/2+)	109
S-n	=	9.210	(0.017)	-----		
117XE 110				9.257	(53/2-)	110

117XE 111				9.530	(53/2+)	111
117XE 112				9.645		112
117XE 113				9.674	(55/2-)	113
117XE 114				9.677		114

S-p	=	4.054	(0.076)	-----		
S-n	=	9.210	(0.017)	-----		
S-2p	=	6.701	(0.030)	-----		
S-2n	=	21.671	(0.016)	-----		
S-alpha	=	-1.737	(0.030)	-----		
S+p	=	-1.513	(0.016)			
S+n	=	-11.965	(0.015)			
S+2p	=	-4.983	(0.201)			

S+2n = -20.752 (0.015)
S+alpha = 1.016 (0.142)

gap p = 2.541 (0.078)
gap n = -2.755 (0.022)
gap 2p = 1.718 (0.203)
gap 2n = 0.920 (0.022)
gap alpha = -0.721 (0.145)