

^{129}Xe $Z = 54$ $N = 75$ adopted link ENSDF link

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

BE = 1087.649 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
129XE 1	0.000	1/2+			1 STABLE
129XE 2	0.040	3/2+			2 0.97 NS 2
129XE 3			0.236 11/2-		3 8.88 D 2
129XE 4				0.274 (9/2-)	4
129XE 5	0.318	3/2+			5 67.5 PS 20
129XE 6	0.322	5/2+			6 44.0 PS 19
129XE 7	0.411	1/2+			7 81 PS 26
129XE 8				0.442 (5/2+)	8
129XE 9	0.519	7/2+			9
129XE 10				0.525 (5/2+)	10
129XE 11				0.573 (5/2+)	11 2.0 PS 2
129XE 12	0.589	3/2+			12 65 PS LE
129XE 13				0.624	13
129XE 14	0.665	7/2+			14
129XE 15				0.693 (1/2+:7/2+)	15
129XE 16				0.771 (13/2-)	16
129XE 17	0.822	9/2+			17
129XE 18				0.823 (5/2+)	18
129XE 19				0.823 (15/2-)	19
129XE 20	0.868	7/2+			20
129XE 21	0.904	3/2+			21
129XE 22				0.909 (9/2,11/2,13/2-)	22
129XE 23				0.946 1/2+,3/2+	23
129XE 24				0.986	24
129XE 25				0.996 (1/2,3/2)	25
129XE 26				1.022 (7/2+)	26
129XE 27				1.032 (13/2-)	27
129XE 28				1.060 (9/2+)	28
129XE 29	1.089	11/2+			29
129XE 30				1.194	30
129XE 31				1.195 (9/2+)	31
129XE 32				1.197 (5/2,7/2,9/2+)	32
129XE 33	1.230	7/2+			33
129XE 34				1.239 1/2,3/2	34
129XE 35				1.241 (1/2,3/2,5/2+)	35
129XE 36				1.336 (11/2+)	36
129XE 37				1.396 (15/2-)	37
129XE 38				1.414 13/2(+)	38

129XE 39				1.430	(13/2,15/2,17/2	39-)
129XE 40				1.497	(11/2+)	40

129XE 41				1.507	(17/2-)	41
129XE 42				1.539	(15/2,17/2,19/2	42-)
129XE 43				1.570	1/2,3/2	43
129XE 44				1.576	(19/2-)	44
129XE 45				1.749	(9/2:13/2+)	45
129XE 46				1.755	(7/2:11/2+)	46
129XE 47				1.762	(15/2+)	47
129XE 48				1.816	(17/2-)	48
129XE 49				1.884	1/2,3/2	49
129XE 50				1.888	(9/2:13/2+)	50

129XE 51				1.972	(17/2-)	51
129XE 52				2.036	(13/2:17/2-)	52
129XE 53				2.048	(15/2+)	53
129XE 54				2.065	(17/2+)	54

S-alpha= 2.099 (0.001)-----						
129XE 55				2.172	(15/2:19/2-)	55
129XE 56				2.180	(19/2-)	56
129XE 57				2.186	1/2,3/2	57
129XE 58				2.289	1/2,3/2	58
129XE 59				2.293	(21/2-)	59
129XE 60				2.307		60

129XE 61				2.343	1/2,3/2	61
129XE 62				2.355	1/2,3/2	62
129XE 63				2.383	1/2,3/2	63
129XE 64				2.394	1/2,3/2	64
129XE 65				2.425	1/2,3/2	65
129XE 66				2.434	(19/2+)	66
129XE 67				2.446	(23/2-)	67
129XE 68				2.499	1/2,3/2	68
129XE 69				2.554	1/2,3/2	69
129XE 70				2.586	(19/2:23/2-)	70

129XE 71				2.592	1/2,3/2	71
129XE 72				2.674	1/2,3/2	72
129XE 73				2.724	1/2,3/2	73
129XE 74				2.744	1/2,3/2	74
129XE 75				2.767	1/2,3/2	75
129XE 76				2.776	1/2,3/2	76
129XE 77				2.793	1/2,3/2	77
129XE 78				2.854	1/2,3/2	78
129XE 79				2.917	1/2,3/2	79
129XE 80				2.972	1/2,3/2	80

129XE 81				3.015	1/2,3/2	81
129XE 82				3.023	1/2,3/2	82

129XE 83			3.215	1/2,3/2	83
129XE 84			3.783	1/2,3/2	84
129XE 85			3.805	1/2,3/2	85
129XE 86			3.829	1/2,3/2	86
S-n	=	6.907 (0.000)	-----		
129XE 87			6.907		87
129XE 88			6.907		88
129XE 89			6.907		89
129XE 90			6.907		90

129XE 91			6.907		91
129XE 92			6.908		92
129XE 93			6.908		93
129XE 94			6.908		94
129XE 95			6.908		95
129XE 96			6.909		96
129XE 97			6.909		97
129XE 98			6.910		98
129XE 99			6.910		99
129XE 100			6.910		100

S-p = 8.247 (0.004)-----
S-n = 6.907 (0.000)-----
S-2p = 14.994 (0.001)-----
S-2n = 16.518 (0.004)-----
S-alpha= 2.099 (0.001)-----

S+p = -5.493 (0.008)
S+n = -9.256 (0.000)
S+2p = -12.561 (0.000)
S+2n = -15.860 (0.000)
S+alpha = -1.282 (0.001)

gap p = 2.754 (0.009)
gap n = -2.349 (0.000)
gap 2p = 2.433 (0.001)
gap 2n = 0.658 (0.004)
gap alpha = 0.817 (0.002)