

^{138}Xe $Z = 54$ $N = 84$ [link to full NNDC output](#)

Based on ENSDF from Dec 2018, and mass evaluation from 2016

BE = 1151.567 (0.003) MeV

Qbeta- = 2.915 (0.010) MeV

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

S-alpha=	-0.136	(0.004)	-----		
138XE 1	0.000	0+			1 14.14 M 7
138XE 2	0.589	2+			2 10.5 PS +38-22
138XE 3				1.073 (4+)	3
138XE 4				1.464 (2+)	4
138XE 5				1.555 (6+)	5
138XE 6				1.866 (1,2+)	6
138XE 7				1.903 (2+,3,4+)	7
138XE 8				2.015 (3-)	8
138XE 9				2.115 (1,2+)	9
138XE 10				2.115	10

138XE 11				2.117	11
138XE 12				2.213	12
138XE 13				2.262 (1,2+)	13
138XE 14				2.284 (8+)	14
138XE 15				2.293 (4+,5,6+)	15
138XE 16				2.332 (2+,3,4+)	16
138XE 17				2.334 (1-,2,3)	17
138XE 18				2.391	18
138XE 19				2.398 (1,2+)	19
138XE 20				2.544 (1,2+)	20

138XE 21				2.572 (1,2+)	21
138XE 22				2.645 (1,2+)	22
138XE 23				2.655 (6+,7,8+)	23
138XE 24				2.674 (1,2+)	24
138XE 25				2.710	25
138XE 26				2.794 (1,2+)	26
138XE 27				2.836 (1,2)	27
138XE 28				2.891 (1,2+)	28
138XE 29				2.953	29
138XE 30				2.964 (1,2+)	30

138XE 31				2.972 (10+)	31
138XE 32				3.225	32
138XE 33				3.276	33
138XE 34				3.355	34
138XE 35				3.413	35
138XE 36				3.475 (2+)	36

138XE 37				3.497	(1,2+)	37
138XE 38				3.517	(1,2+)	38
138XE 39				3.571	(12+)	39
138XE 40				3.840		40

138XE 41				3.877		41
138XE 42				3.899		42
138XE 43				3.899	(1,2+)	43
138XE 44				3.962	(1-,2,3)	44
138XE 45				4.085		45
138XE 46				4.168	(1,2,3)	46
138XE 47				4.182	(1,2+)	47
138XE 48				4.319	(1,2+)	48
138XE 49				4.357		49
138XE 50				4.419	(14+)	50

138XE 51				4.490	(1,2,3)	51
138XE 52				4.512		52
138XE 53				4.526		53
138XE 54				4.690		54
138XE 55				4.965		55
138XE 56				4.990		56
138XE 57				5.042	(1,2,3)	57
138XE 58				5.142	(1,2,3)	58
138XE 59				5.342	(1,2+)	59
138XE 60				5.520		60

S-n	=	5.660	(0.003)	-----		
138XE 61				5.814		61

S-p	=	10.905	(0.009)	-----		
S-n	=	5.660	(0.003)	-----		
S-2p	=	20.125	(0.004)	-----		
S-2n	=	9.686	(0.003)	-----		
S-alpha	=	-0.136	(0.004)	-----		

S+p	=	-8.018	(0.004)			
S+n	=	-3.744	(0.003)			
S+2p	=	-17.875	(0.008)			
S+2n	=	-9.157	(0.004)			
S+alpha	=	-0.295	(0.007)			

gap p	=	2.887	(0.010)			
gap n	=	1.916	(0.004)			
gap 2p	=	2.250	(0.009)			
gap 2n	=	0.529	(0.005)			
gap alpha	=	-0.431	(0.008)			