

$^{116}\text{Xe}$        $Z = 54$        $N = 62$       adopted link      ENSDF link

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

BE = 967.073 ( 0.013) MeV

Qbeta+ = 4.374 ( 0.076) MeV

	Energy T	J+		J-		J-other		T1/2
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S-alpha=	-2.096 ( 0.015)-----							
116XE	1	0.000	0+					1 59 S 2
116XE	2	0.394	2+					2 24.3 PS 9
116XE	3	0.918	4+					3 3.33 PS 14
116XE	4					1.016	(2+)	4
116XE	5					1.321	(2+)	5
116XE	6					1.474	(3+)	6
116XE	7	1.534	6+					7 1.66 PS 14
116XE	8					1.557	(4+)	8
116XE	9					1.839	(4+)	9
116XE	10			1.980	5-			10
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116XE	11					2.086	(5+)	11
116XE	12	2.117	6+					12
116XE	13	2.211	8+					13 1.18 PS 14
116XE	14			2.445	7-			14 2.1 PS 8
116XE	15					2.498	(6+)	15
116XE	16			2.607	6-			16
116XE	17	2.775	8+					17
116XE	18	2.932	10+					18 0.76 PS 14
116XE	19			2.982	9-			19 2.6 PS 3
116XE	20			3.079	8-			20
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116XE	21			3.272	9-			21
116XE	22	3.457	10+					22
116XE	23					3.555	(9+)	23
116XE	24			3.628	11-			24 1.7 PS 2
116XE	25			3.633	10-			25
116XE	26	3.684	12+					26
116XE	27			3.856	11-			27
116XE	28					3.856	(10+)	28
116XE	29					3.961		29
116XE	30	3.979	12+					30
-----								
S-p	= 3.998 ( 0.032)-----							
116XE	31					4.171	(11+)	31
116XE	32			4.238	12-			32
116XE	33			4.363	13-			33
116XE	34	4.465	14+					34
116XE	35					4.486	(12+)	35

116XE 36				4.548	13-				36
116XE 37		4.699	14+						37
116XE 38					4.934	14-			38
116XE 39					5.163	15-			39
116XE 40		5.301	16+						40
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116XE 41					5.302	15-			41
116XE 42								5.393 (15-)	42
116XE 43		5.542	16+						43
116XE 44					5.713	16-			44
-----									
S-2p	=	5.735 ( 0.028)-----							
116XE 45								5.990 (16-)	45
116XE 46					6.016	17-			46
116XE 47								6.111 (17-)	47
116XE 48								6.195 (18+)	48
116XE 49								6.469 (18+)	49
116XE 50								6.757 (18-)	50
-----									
116XE 51								6.920 (19-)	51
116XE 52								6.982 (19-)	52
116XE 53								7.148 (20+)	53
116XE 54								7.467 (20+)	54
116XE 55								7.853 (21-)	55
116XE 56								7.923 (21-)	56
116XE 57								8.151 (22+)	57
116XE 58								8.490 (22+)	58
116XE 59								8.868 (23-)	59
116XE 60								8.993 (23-)	60
-----									
116XE 61								9.198 (24+)	61
116XE 62								9.467 (23)	62
116XE 63								9.970 (25-)	63

S-p = 3.998 ( 0.032)-----  
S-n = 12.461 ( 0.018)-----  
S-2p = 5.735 ( 0.028)-----  
S-2n = 22.104 ( 0.017)-----  
S-alpha= -2.096 ( 0.015)-----

S+p = -0.735 ( 0.064)  
S+n = -9.210 ( 0.017)  
S+2p = -3.713 ( 0.236)  
S+2n = -21.175 ( 0.017)  
S+alpha = 1.733 ( 0.300)

gap p = 3.263 ( 0.071)  
gap n = 3.252 ( 0.024)  
gap 2p = 2.022 ( 0.238)  
gap 2n = 0.929 ( 0.024)

gap alpha = -0.362 ( 0.301)