

$^{142}\text{Xe}$        $Z = 54$        $N = 88$       adopted link      ENSDF link

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

BE = 1169.110 ( 0.003) MeV

Qbeta- = 5.285 ( 0.008) MeV

	Energy T	J+	J-	J-other	T1/2
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142XE	1   0.000	0+			1 1.23 S 2
142XE	2   0.287	2+			2 0.20 NS 3
142XE	3			0.691 (4+)	3
142XE	4			1.181 (6+)	4
142XE	5			1.258 (3-)	5
142XE	6			1.516 (5-)	6
142XE	7			1.622	7
142XE	8			1.732 (8+)	8
142XE	9			1.865	9
142XE	10			1.888 (7-)	10
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S-alpha=	1.959 ( 0.005)				
142XE	11			1.981	11
142XE	12			2.212	12
142XE	13			2.343 (10+)	13
142XE	14			2.351 (9-)	14
142XE	15			2.605	15
142XE	16			2.806	16
142XE	17			2.892 (11-)	17
142XE	18			3.014 (12+)	18
142XE	19			3.210	19
142XE	20			3.496 (13-)	20
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142XE	21			3.740 (14+)	21
142XE	22			3.764	22
142XE	23			4.511 (16+)	23

S-p = 12.592 ( 0.016)-----

S-n = 5.104 ( 0.004)-----

S-2p = 23.440 ( 0.015)-----

S-2n = 8.386 ( 0.004)-----

S-alpha= 1.959 ( 0.005)-----

S+p = -9.735 ( 0.008)

S+n = -3.045 ( 0.005)

S+2p = -21.115 ( 0.008)

S+2n = -7.785 ( 0.006)

S+alpha = -2.062 ( 0.003)

gap p = 2.857 ( 0.018)  
gap n = 2.059 ( 0.007)  
gap 2p = 2.325 ( 0.017)  
gap 2n = 0.601 ( 0.007)  
gap alpha = -0.103 ( 0.006)