

$^{146}\text{Ba}$        $Z = 56$        $N = 90$       [link to full NNDC output](#)

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

BE = 1199.548 ( 0.021) MeV

Qbeta- = 4.103 ( 0.040) MeV

	Energy T	J+	J-	J-other	T1/2
146BA 1	0.000	0+			1 2.21 S 6
146BA 2	0.181	2+			2 0.859 NS 26
146BA 3	0.514	4+			3 18 PS 15
146BA 4			0.739 1-		4 160 PS 10
146BA 5			0.821 3-		5 237 PS 8
146BA 6	0.958	6+			6
146BA 7			1.025 5-		7
146BA 8	1.052	0+			8 26 PS LT
146BA 9				1.115 (1,2)+	9
146BA 10				1.158	10
146BA 11				1.256 (1,2)+	11
146BA 12	1.309	3+			12
146BA 13				1.342 (0+)	13
146BA 14			1.349 7-		14
146BA 15	1.399	2+			15
146BA 16				1.411	16
146BA 17	1.483	8+			17
146BA 18			1.511 1-		18
146BA 19				1.528 (3)	19
146BA 20				1.566 (2+)	20
146BA 21				1.632	21
146BA 22				1.638	22
146BA 23				1.656 (1,2+)	23
146BA 24				1.669	24
146BA 25				1.683	25
146BA 26				1.715 (1,2+)	26
146BA 27			1.778 9-		27
146BA 28				1.780	28
146BA 29			1.875 6-		29
146BA 30				1.933	30
146BA 31			1.945 7-		31
146BA 32				1.969 (1,2+)	32
146BA 33				1.974	33
146BA 34				1.980	34
146BA 35				1.996 (1,2+)	35
146BA 36				2.029 (8+)	36
146BA 37				2.038	37

146BA 38		2.052	10+					38	
146BA 39							2.060	39	
146BA 40					2.090	8-		40	
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146BA 41							2.097 (7-)	41	
146BA 42							2.135	42	
S-alpha=		2.142	( 0.021)	-----					
146BA 43							2.162	43	
146BA 44							2.171	44	
146BA 45					2.191	9-		45	
146BA 46							2.209	46	
146BA 47							2.213 (8,9-)	47	
146BA 48					2.293	11-		48	
146BA 49							2.344 (1,2+)	49	
146BA 50							2.350 (9-)	50	
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146BA 51							2.389 (10-)	51	
146BA 52							2.443 (10+)	52	
146BA 53					2.516	11-		53	
146BA 54							2.530 (10,11-)	54	
146BA 55		2.632	12+					55	
146BA 56							2.710	56	
146BA 57							2.791 (12-)	57	
146BA 58					2.876	13-		58	
146BA 59					2.939	13-		59	
146BA 60							2.954	60	
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146BA 61		3.193	14+					61	
146BA 62							3.298 (14-)	62	
146BA 63							3.452 (15-)	63	
146BA 64							3.524	64	
146BA 65							3.737 (16+)	65	
146BA 66							4.072 (17-)	66	
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S-p	=	12.182	( 0.023)	-----					
S-n	=	5.502	( 0.023)	-----					
S-2p	=	22.653	( 0.022)	-----					
S-2n	=	9.323	( 0.022)	-----					
S-alpha=		2.142	( 0.021)	-----					
S+p	=	-9.020	( 0.023)						
S+n	=	-3.388	( 0.029)						
S+2p	=	-20.029	( 0.024)						
S+2n	=	-8.789	( 0.066)						
S+alpha	=	-2.325	( 0.024)						
gap p	=	3.161	( 0.033)						
gap n	=	2.114	( 0.036)						
gap 2p	=	2.623	( 0.032)						

gap 2n = 0.533 ( 0.070)  
gap alpha = -0.182 ( 0.032)