

$^{123}\text{Ba}$        $Z = 56$        $N = 67$       adopted link      ENSDF link

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

BE = 1024.616 ( 0.012) MeV

Qbeta+ = 5.389 ( 0.017) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-0.715	( 0.016)	-----		
123BA 1				0.000 5/2(+)	1 2.4 M 4
123BA 2				0.093 (7/2-)	2 40 NS AP
123BA 3				0.121 (1/2+)	3 0.83 US 6
123BA 4				0.154 (3/2+)	4
123BA 5				0.169 (7/2+)	5
123BA 6				0.203 (9/2-)	6
123BA 7				0.328 (5/2+)	7
123BA 8				0.336 (11/2-)	8
123BA 9				0.374 (9/2+)	9
123BA 10				0.397 (7/2+)	10
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123BA 11				0.461	11
123BA 12				0.482	12
123BA 13				0.564	13
123BA 14				0.583 (13/2-)	14
123BA 15				0.612 (11/2+)	15
123BA 16				0.695 (9/2+)	16
123BA 17				0.721 (7/2-,9/2,11/2-)	17)
123BA 18				0.757 (15/2-)	18
123BA 19				0.791 (11/2+)	19
123BA 20				0.799	20
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123BA 21				0.878 (13/2+)	21
123BA 22				1.091	22
123BA 23				1.137 (17/2-)	23
123BA 24				1.172 (15/2+)	24
123BA 25				1.309 (15/2+)	25
123BA 26				1.326 (19/2-)	26
123BA 27				1.481 (17/2+)	27
123BA 28				1.818 (19/2+)	28
123BA 29				1.830 (21/2-)	29
123BA 30				1.926 (19/2+)	30
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123BA 31				2.018 (23/2-)	31
123BA 32				2.154 (21/2+)	32
123BA 33				2.516 (23/2+)	33
123BA 34				2.613 (23/2+)	34
123BA 35				2.614 (25/2-)	35
123BA 36				2.798 (27/2-)	36

123BA 37				2.864	(25/2+)	37
123BA 38				3.189	(27/2+)	38
123BA 39				3.242		39
123BA 40				3.341	(27/2+)	40
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123BA 41				3.350	(29/2-)	41
123BA 42				3.582	(29/2+)	42
123BA 43				3.592	(31/2-)	43
123BA 44				4.001	(33/2-)	44
123BA 45				4.361	(35/2-)	45
123BA 46				4.763	(37/2-)	46
S-p	=	4.799	( 0.036)	-----		
123BA 47				5.211	(39/2-)	47
123BA 48				5.672	(41/2-)	48
123BA 49				6.174	(43/2-)	49
123BA 50				6.716	(45/2-)	50
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123BA 51				7.243	(47/2-)	51
S-2p	=	7.752	( 0.016)	-----		
123BA 52				7.880	(49/2-)	52
123BA 53				8.400	(51/2-)	53
S-n	=	9.117	( 0.030)	-----		
123BA 54				9.131	(53/2-)	54
123BA 55				9.605	(55/2-)	55
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S-p	=	4.799	( 0.036)	-----		
S-n	=	9.117	( 0.030)	-----		
S-2p	=	7.752	( 0.016)	-----		
S-2n	=	21.053	( 0.142)	-----		
S-alpha	=	-0.715	( 0.016)	-----		
S+p	=	-1.893	( 0.058)			
S+n	=	-11.506	( 0.017)			
S+2p	=	-5.634	( 0.250)			
S+2n	=	-20.157	( 0.016)			
S+alpha	=	1.251	( 0.031)			
gap p	=	2.907	( 0.068)			
gap n	=	-2.389	( 0.035)			
gap 2p	=	2.118	( 0.251)			
gap 2n	=	0.896	( 0.143)			
gap alpha	=	0.536	( 0.035)			