

^{193}Bi $Z = 83$ $N = 110$ adopted link ENSDF link

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

BE = 1508.714 (0.008) MeV

Qbeta+ = 6.345 (0.013) MeV

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

S-alpha=	-6.307 (0.011)				
193BI 1				0.000 (9/2-)	1 63.6 S 30
193BI 2			0.278 7/2-		2
193BI 3				0.305 (1/2+)	3 3.20 S 14
193BI 4			0.465 9/2-		4
193BI 5	0.505	3/2+			5
193BI 6	0.606	13/2+			6 153 NS 10
193BI 7			0.620 11/2-		7

S-p	= 0.622 (0.010)				
193BI 8				0.642 (7/2-)	8
193BI 9			0.662 9/2-		9
193BI 10	0.734	5/2+			10

193BI 11			0.818 13/2-		11
193BI 12			0.915 11/2-		12
193BI 13	0.929	15/2+			13
193BI 14				0.965	14
193BI 15				1.013 (7/2+)	15
193BI 16			1.066 13/2-		16
193BI 17	1.117	13/2+			17
193BI 18			1.170 15/2-		18
193BI 19				1.204 (9/2+)	19
193BI 20	1.228	17/2+			20

193BI 21			1.249 13/2-		21
193BI 22				1.258 (11/2-)	22
193BI 23				1.321	23
193BI 24			1.415 17/2-		24
193BI 25				1.514 (17/2+)	25
193BI 26				1.517 (11/2+)	26
193BI 27			1.521 13/2-		27
193BI 28	1.536	15/2+			28
193BI 29	1.555	19/2+			29
193BI 30			1.562 15/2-		30

193BI 31				1.610 (15/2-)	31
193BI 32				1.637 (13/2+)	32
193BI 33				1.651 (15/2-)	33
193BI 34	1.673	17/2+			34
193BI 35			1.737 17/2-		35

193BI 36						1.762	(15/2-)	36
193BI 37				1.794	19/2-			37
193BI 38						1.859	(17/2+)	38
193BI 39				1.859	15/2-			39
193BI 40		1.875	21/2+					40

193BI 41				1.910	17/2-			41
193BI 42		1.950	19/2+					42
193BI 43						1.980		43
193BI 44						2.046	(19/2-)	44
193BI 45						2.049	(21/2+)	45
193BI 46				2.049	21/2-			46
193BI 47		2.058	21/2+					47
193BI 48				2.090	17/2-			48
193BI 49		2.110	19/2+					49
193BI 50		2.129	21/2+					50

193BI 51						2.140	(17/2+)	51
193BI 52				2.194	19/2-			52
193BI 53		2.221	23/2+					53
193BI 54				2.240	19/2-			54
193BI 55						2.254		55
193BI 56		2.266	25/2+					56
193BI 57		2.279	25/2+					57
193BI 58						2.322	(21/2+)	58
193BI 59				2.337	21/2-			59
193BI 60		2.350	29/2+					60

193BI 61				2.356	25/2-			61
193BI 62						2.405	(29/2-)	62
193BI 63				2.428	23/2-			63
193BI 64		2.433	23/2+					64
193BI 65						2.448		65
193BI 66				2.463	23/2-			66
193BI 67				2.484	23/2-			67
193BI 68		2.510	23/2+					68
193BI 69				2.525	23/2-			69
193BI 70		2.536	25/2+					70

193BI 71						2.547	(21/2-)	71
193BI 72				2.578	23/2-			72
193BI 73				2.587	25/2-			73
193BI 74		2.592	25/2+					74
193BI 75				2.669	25/2-			75
193BI 76						2.709	(25/2+)	76
193BI 77						2.710		77
193BI 78		2.718	27/2+					78
193BI 79				2.722	27/2-			79
193BI 80				2.723	25/2-			80

85 US 3

3.02 US 8

193BI 81		2.756	27/2+				81	
193BI 82		2.763	25/2+				82	
193BI 83						2.775	83	
193BI 84						2.804 (31/2-)	84	
193BI 85				2.832	29/2-		85	
193BI 86		2.873	29/2+				86	
193BI 87						2.893 (25/2+)	87	
193BI 88				2.922	27/2-		88	
193BI 89						2.928 (29/2-)	89	
193BI 90						2.957 25/2(+)	90	

193BI 91		2.959	31/2+				91	
193BI 92		2.964	31/2+				92	
193BI 93		2.987	29/2+				93	
193BI 94		2.996	29/2+				94	
193BI 95						3.104	95	
193BI 96		3.117	33/2+				96	
193BI 97						3.118 (23/2-)	97	
193BI 98						3.159 (33/2-)	98	
193BI 99				3.200	29/2-		99	
193BI 100						3.220	100	

193BI 101						3.283 (33/2-)	101	
193BI 102		3.304	33/2+				102	
193BI 103		3.321	35/2+				103	
193BI 104		3.349	33/2+				104	
193BI 105						3.449 (35/2-)	105	
193BI 106				3.496	31/2-		106	
193BI 107		3.561	37/2+				107	
193BI 108						3.563 (31/2+)	108	
193BI 109						3.623	109	
193BI 110						3.639	110	

193BI 111						3.669 (37/2-)	111	
193BI 112						3.710 (37/2-)	112	
193BI 113						3.749	113	
193BI 114				3.796	33/2-		114	
193BI 115				3.816	35/2-		115	
193BI 116		3.837	39/2+				116	
193BI 117		3.886	35/2+				117	
193BI 118						3.911	118	
193BI 119		3.969	37/2+				119	
193BI 120						3.977	120	

193BI 121				4.009	35/2-		121	
193BI 122						4.029 (39/2-)	122	
193BI 123						4.030	123	
193BI 124						4.059 (35/2-)	124	
193BI 125		4.137	41/2+				125	

S-2p	=	4.179	(0.011)	-----				

193BI 126				4.213	(37/2-)	126
193BI 127				4.241	(37/2-)	127
193BI 128				4.272	(37/2+)	128
193BI 129				4.284		129
193BI 130				4.292		130

193BI 131			4.345	37/2-		131
193BI 132		4.468	43/2+			132
193BI 133				4.544		133
193BI 134				4.575		134
193BI 135				4.587		135
193BI 136		4.824	45/2+			136
193BI 137				4.898		137
193BI 138				4.961		138
193BI 139				5.680		139

S-p = 0.622 (0.010)-----
 S-n = 10.421 (0.031)-----
 S-2p = 4.179 (0.011)-----
 S-2n = 18.788 (0.011)-----
 S-alpha= -6.307 (0.011)-----

S+p = -2.409 (0.015)
 S+n = -8.210 (0.009)
 S+2p = -2.164 (0.012)
 S+2n = -18.284 (0.009)
 S+alpha = 7.104 (0.011)

gap p = -1.788 (0.018)
 gap n = 2.212 (0.032)
 gap 2p = 2.016 (0.016)
 gap 2n = 0.504 (0.014)
 gap alpha = 0.798 (0.016)