

^{22}Na $Z = 11$ $N = 11$ adopted link ENSDF link

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

BE = 174.145 (0.000) MeV

Qbeta+ = 2.843 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
22NA 1	0.000	3+			1 2.6018 Y 22
22NA 2	0.583	1+			2 243 NS 2
22NA 3	0.657 1	0+			3 19.6 PS 7
22NA 4	0.891	4+			4 10.0 PS 3
22NA 5	1.528	5+			5 3.42 PS 24
22NA 6	1.937	1+			6 13 FS 4
22NA 7	1.952 1	2+			7 8 FS 2
22NA 8	1.984	3+			8 1.47 PS 15
22NA 9			2.211 1-		9 14.9 PS 6
22NA 10			2.572 2-		10 5.0 PS 6
22NA 11	2.969	3+			11 32 FS 4
22NA 12	3.059	2+			12 23 FS 3
22NA 13				3.519 (3-)	13 465 FS 76
22NA 14	3.707	6+			14 59 FS 12
22NA 15	3.942	1+			15 0.7 FS LT
22NA 16	4.071 1	4+			16 0.7 FS LT
22NA 17				4.296 (0-)	17 3.5 PS +8-2
22NA 18	4.319	1+			18 17 FS 10
22NA 19	4.360	2+			19 5.0 FS 14
22NA 20				4.469 (4-)	20 100 FS 38
22NA 21				4.524 (5+)	21 71 FS 33
22NA 22			4.583 2-		22 69 PS LT
22NA 23				4.622 1	23 69 PS LT
22NA 24				4.710 (5+)	24 37 FS 14
22NA 25	4.770	3+			25 5.9 PS 14
22NA 26				5.062 (2+)	26 14 FS LT
22NA 27	5.100	4+			27 38 FS 12
22NA 28				5.130	28 69 PS LT
22NA 29				5.174 1 1+,2+	29 1 FS LT
22NA 30				5.318 (3+)	30 0.7 FS LT
22NA 31				5.442	31
22NA 32				5.603 (1,2)+	32 3 FS LT
22NA 33				5.700	33
22NA 34				5.725	34
22NA 35	5.739	1+			35
22NA 36				5.832	36
22NA 37				5.863 (1,2)+	37

22NA 38				5.922		38		
22NA 39				5.959 1 2-		39	2.9 FS	8
22NA 40				5.988		40		

22NA 41				5.995 (1) (1,2)+		41		
22NA 42				6.090 (1) (1,2)+		42		
22NA 43				6.189 (1) (0 TO 4)+		43		
22NA 44				6.242		44		
22NA 45				6.329 (1) (0 TO 3)-		45		
22NA 46				6.433		46		
22NA 47				6.523		47		
22NA 48				6.551 1 (1,2)+		48		
22NA 49				6.580		49		
22NA 50				6.636		50		

22NA 51				6.668		51		
22NA 52				6.714		52		
S-p =	6.739	(0.000)	-----				
22NA 53				6.756		53		
22NA 54				6.834 (1) (0+,1+)		54		
22NA 55				6.859 1,2+		55	12 EV	LT
22NA 56				6.957 (1)		56		
22NA 57				6.981 (1)		57		
22NA 58				6.997		58	5 EV	LT
22NA 59				6.998		59	3 EV	LT
22NA 60				7.016		60	11 EV	LT

22NA 61				7.049		61		
22NA 62				7.075		62	0.1 KEV	LT
22NA 63				7.152 3+,4+		63	0.5 KEV	LT
22NA 64				7.220 0 1+,2,3+		64	0.4 KEV	LT
22NA 65				7.240 (1) 2+,3,4+		65	0.3 KEV	LT
22NA 66				7.278 (1) 1,2+		66	0.5 KEV	LT
22NA 67				7.279		67	1.5 KEV	LT
22NA 68				7.360 3+,4		68	1.0 KEV	LT
22NA 69				7.372 2		69	0.5 KEV	LT
22NA 70				7.378 2+,3+		70	0.5 KEV	LT

22NA 71				7.401 1+,2+		71	1.5 KEV	LT
22NA 72		7.409 1	1+			72	3.5 KEV	6
22NA 73				7.423 2		73	2.5 KEV	5
22NA 74				7.472 1 (2+)		74	3.5 KEV	6
22NA 75				7.515 0 (3+)		75	0.5 KEV	LT
22NA 76				7.547 1		76	0.6 KEV	LT
22NA 77				7.574 3+,4,5+		77	0.5 KEV	LT
22NA 78				7.599 (2-)		78	1.9 KEV	10
22NA 79				7.605 1+,2+		79	0.6 KEV	LT
22NA 80				7.636 0 2+,3,4+		80	0.5 KEV	LT

22NA 81				7.683 2+,3,4+		81	0.5 KEV	LT

22NA 82				7.778 (1) (1 TO 3)-	82	2.8 KEV	7
22NA 83				7.801 0 (1,2)+	83	2.4 KEV	7
22NA 84				7.821 0 1+,2+	84	0.5 KEV	LT
22NA 85				7.884	85	2.6 KEV	LT
22NA 86		7.889 (1) 4+			86	0.5 KEV	LT
22NA 87			7.919 1 2-		87	17 KEV	4
22NA 88				7.943	88		
22NA 89				7.965 (1) 0,1,2,3+	89	0.5 KEV	LT
22NA 90				7.977 (1) (1 TO 3)-	90	10 KEV	3

22NA 91				8.018 4+,5+	91	1.0 KEV	LT
22NA 92				8.041 2+,3,4+	92	0.5 KEV	LT
22NA 93				8.101 1+,2+	93	3.8 KEV	7
22NA 94				8.108 1 3+,4	94	1.5 KEV	LT
22NA 95			8.114 3-		95	3.5 KEV	12
22NA 96				8.128	96		
22NA 97			8.165 1(+ 3-		97	35 KEV	10
22NA 98				8.197 2+,3+	98	0.6 KEV	LT
22NA 99				8.211 0 1+,2+	99	10 KEV	4
22NA 100				8.221 4+,5,6+	100	21 FS	LT

22NA 101				8.234 1 1+,2+	101	13 KEV	3
22NA 102				8.288 (1 TO 3)-	102	4.5 KEV	10
22NA 103				8.328 1-,2-	103	2.7 KEV	8
22NA 104				8.371	104		
22NA 105				8.404	105		
22NA 106				8.436 (1 TO 3)-	106	5.4 KEV	15

S-alpha=		8.479 (0.000)					

22NA 107				8.496 1+,2+	107	44 KEV	4
22NA 108				8.538 (1 TO 3)-	108	13.2 KEV	15
22NA 109				8.562	109		
22NA 110				8.567 (0 TO 4)+	110		

22NA 111				8.572	111	16 FS	LT
22NA 112				8.602 (1 TO 3)-	112	11.2 KEV	20
22NA 113				8.613	113	21 FS	14
22NA 114				8.636 (1 TO 3)-	114		
22NA 115				8.675 1	115	5.3 KEV	15
22NA 116				8.724	116	32 FS	LT
22NA 117				8.740	117		
22NA 118				8.792	118		
22NA 119				8.845	119		
22NA 120				8.875	120		

22NA 121				8.950	121		
22NA 122				9.008	122		
22NA 123				9.060	123	17 FS	LT
22NA 124				9.122	124		
22NA 125				9.150	125		
22NA 126				9.195	126		

22NA 127			9.240	127
22NA 128			9.312	128
22NA 129			9.360	129
22NA 130			9.438	130

22NA 131			9.527	131
22NA 132			9.582	132
22NA 133			9.647	133
22NA 134			9.682	134
22NA 135			9.715	135
22NA 136			9.756	136
22NA 137			9.794	137
22NA 138			9.813	138
22NA 139			9.859	139
22NA 140			9.908	140

22NA 141			9.957	141

S-p = 6.739 (0.000)-----
S-n = 11.068 (0.000)-----
S-2p = 19.742 (0.000)-----
S-2n = 28.175 (0.001)-----
S-alpha= 8.479 (0.000)-----

S+p = -7.581 (0.000)
S+n = -12.420 (0.000)
S+2p = -9.445 (0.000)
S+2n = -19.379 (0.000)
S+alpha = -9.454 (0.000)

gap p = -0.843 (0.000)
gap n = -1.352 (0.000)
gap 2p = 10.297 (0.000)
gap 2n = 8.795 (0.001)
gap alpha = -0.974 (0.001)