

^{23}Mg $Z = 12$ $N = 11$ adopted link ENSDF link

Based on ensdf_240402 (Apr 2024), and mass evaluation from 2020

BE = 181.726 (0.000) MeV

Qbeta+ = 4.056 (0.000) MeV

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

23MG	1	0.000	3/2+						1	11.3046 S	45
23MG	2	0.451	5/2+						2	1.15 PS	8
23MG	3	2.052	7/2+						3	65 FS	12
23MG	4	2.357	1/2+						4	575 FS	118
23MG	5	2.714	9/2+						5	65 FS	8
23MG	6				2.771	1/2-			6	75 FS	10
23MG	7	2.905	(3/2)+						7	10.4 FS	21
23MG	8				3.794	3/2-			8	28.4 FS	42
23MG	9						3.861	3/2+,5/2+	9	8.3 FS	21
23MG	10				3.972	5/2-			10	14 NS	LT

23MG	11	4.356	1/2+						11	7.6 FS	LT
23MG	12	4.681	(7/2)+						12	6.9 FS	21
23MG	13						5.287	3/2+,5/2+	13	3.5 FS	14
23MG	14	5.454	(11/2)+						14	10.4 FS	LT
23MG	15	5.658	5/2+						15		
23MG	16	5.691	(1/2 T0 9/2)+						16		
23MG	17						5.712	1/2+,3/2+	17		
23MG	18	5.938	(11/2+)						18		
23MG	19						5.993	1/2-,3/2-	19		
23MG	20				6.129	(7/2-)			20	12.5 FS	21

23MG	21						6.132	3/2+,5/2+	21		
23MG	22	6.195	(13/2+)						22	11.9 FS	21
23MG	23	6.240	(9/2)+						23	27.7 FS	LT
23MG	24						6.246		24		
23MG	25	6.372	(7/2+)						25		
23MG	26	6.377	(7/2+)						26	31.2 FS	LT
23MG	27						6.391	(3/2+,5/2	27		
23MG	28				6.448	(9/2-)			28		
23MG	29				6.450	(9/2-)			29	24.3 FS	55
23MG	30	6.514	(7/2)+						30		

23MG	31						6.540	3/2+,5/2+	31		
23MG	32	6.575	5/2+						32		
23MG	33						6.775		33		
23MG	34						6.804	3/2+,5/2+	34		
23MG	35						6.805		35		
23MG	36						6.818	1/2+,3/2+	36		

23MG	37	6.908	5/2+			37	6.9	FS	LT
23MG	38	6.984	5/2+						38
23MG	39				7.007 (3/2+,5/2	39			
23MG	40	7.022	(9/2)+			40			

23MG	41	7.112	(3/2 T0 11/2)+			41			
23MG	42	7.145	(13/2+)			42			
23MG	43	7.149	(5/2+)			43			
23MG	44				7.228	44			
23MG	45				7.260 (3/2+,5/2	45			
23MG	46	7.262	(11/2+)			46	1.4	FS	7
23MG	47	7.383	(7/2+)			47			
23MG	48	7.451	(9/2)+			48	9.7	FS	LT
23MG	49	7.497	(9/2)+			49	13.9	FS	LT
S-p	=	7.581 (0.000)							
23MG	50	7.583	5/2+			50			

23MG	51	7.624	(9/2)+			51	2.8	FS	14
23MG	52				7.648 3/2+,5/2+	52			
23MG	53				7.770	53	1.4	FS	7
23MG	54	7.782	(11/2+)			54	0.7	FS	LT
23MG	55				7.785 3/2+,5/2+	55	6.9	FS	21
23MG	56	7.803 3/2	5/2+			56			
23MG	57	7.856	(7/2+)			57			
23MG	58				7.918	58			
23MG	59				8.016 (5/2,7/2)	59			
23MG	60				8.044	60			

23MG	61				8.062	61			
23MG	62				8.074	62			
23MG	63				8.141	63			
23MG	64	8.163	5/2+			64			
23MG	65				8.193	65			
23MG	66				8.288	66			
23MG	67				8.330 3/2+,5/2+	67			
23MG	68				8.342	68			
23MG	69				8.393	69			
23MG	70				8.427	70			

23MG	71				8.449 3/2+,5/2+	71			
23MG	72				8.557	72			
23MG	73				8.578 3/2,5/2,7	73			
23MG	74				8.617 (5/2,7/2,	74			
23MG	75				8.762	75			
23MG	76	8.793	(7/2+)			76			
23MG	77				8.840 3/2,5/2,7	77			
23MG	78				8.870	78			
23MG	79	8.908	(5/2+)			79			
23MG	80				8.924 1/2-,3/2-	80			

23MG 81				8.942	81	70 FS LT
23MG 82				8.993 3/2+,5/2+	82	
23MG 83				9.020 1/2-,3/2-	83	
23MG 84				9.022 3/2,5/2,7	84	
23MG 85				9.060	85	
23MG 86				9.102 3/2,5/2,7	86	
23MG 87				9.135 3/2,5/2,7	87	
23MG 88				9.159 1/2+,3/2+	88	
23MG 89				9.253	89	
23MG 90				9.325 3/2,5/2,7	90	

23MG 91				9.374	91	
23MG 92				9.403	92	
23MG 93				9.421 3/2+,5/2+	93	
23MG 94				9.468 3/2+,5/2+	94	
23MG 95				9.502 1/2+,3/2+	95	
23MG 96				9.597 (15/2+,17	96	70 FS LT
23MG 97				9.604 3/2,5/2,7	97	
23MG 98				9.642	98	
S-alpha=	9.651 (0.000)					

23MG 99		9.673	3/2-		99	
23MG 100				9.717	100	

23MG 101				9.750	101	
23MG 102				9.850 (3/2+,5/2102		
23MG 103				9.970 (1/2-,3/2103		
23MG 104				10.120	104	
23MG 105				10.270 (1/2-,3/2105		
23MG 106				10.290 1/2+,3/2+106		
23MG 107				10.440 (1/2-,3/2107		
23MG 108				10.570 1/2-,3/2-108		
23MG 109				10.750 (3/2+,5/2109		
23MG 110				10.920	110	

23MG 111				11.030	111	
23MG 112				11.132 1/2+,3/2+112		
23MG 113				11.210	113	
23MG 114				11.380	114	
23MG 115				11.540	115	
23MG 116				11.800	116	
23MG 117				11.990	117	
23MG 118				12.480	118	
23MG 119				12.690	119	
23MG 120				12.940	120	
S-n =	13.145 (0.000)					

23MG 121				13.280	121	
23MG 122				14.130	122	
S-2p =	14.320 (0.000)					

23MG 123				14.560	123	

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S-p    =  7.581 ( 0.000) -----
S-n    = 13.145 ( 0.000) -----
S-2p   = 14.320 ( 0.000) -----
S-2n   = 32.520 ( 0.001) -----
S-alpha=  9.651 ( 0.000) -----

S+p    = -1.864 ( 0.000)
S+n    = -16.531 ( 0.000)
S+2p   = -5.277 ( 0.010)
S+2n   = -23.862 ( 0.000)
S+alpha = -9.336 ( 0.000)

gap p   =  5.717 ( 0.000)
gap n   = -3.386 ( 0.000)
gap 2p  =  9.043 ( 0.010)
gap 2n  =  8.658 ( 0.001)
gap alpha =  0.315 ( 0.000)
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