

$^{24}\text{Mg}$        $Z = 12$        $N = 12$       [link to full NNDC output](#)

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

BE = 198.257 ( 0.000) MeV

	Energy T	J+	J-	J-other	T1/2
24MG 1	0.000	0+			1 STABLE
24MG 2	1.369	2+			2 1.33 PS 6
24MG 3	4.123	4+			3 22 FS 2
24MG 4	4.238	2+			4 41 FS 4
24MG 5	5.235	3+			5 61 FS 7
24MG 6	6.011	4+			6 49 FS 5
24MG 7	6.432	0+			7 53 FS 8
24MG 8	7.349	2+			8 6 FS 2
24MG 9			7.555 1-		9 270 FS 55
24MG 10			7.616 3-		10 890 FS 140
24MG 11	7.748	1+			11 10 FS 3
24MG 12	7.812	5+			12 20 FS 4
24MG 13	8.114	6+			13 3.6 FS 10
24MG 14			8.358 3-		14 56 FS 8
24MG 15			8.437 1-		15 10 FS 2
24MG 16	8.439	4+			16 3.8 FS 11
24MG 17	8.655	2+			17 8.2 FS 21
24MG 18			8.864 2-		18 4.4 FS 15
24MG 19	9.003	2+			19 7.6 FS 14
24MG 20			9.146 1-		20
24MG 21	9.284	2+			21 11 FS 2
24MG 22				9.300	22
24MG 23				9.301 2+,3,4+	23 7 FS 2
24MG 24	9.305	0+			24 173 FS 35
S-alpha=	9.317 ( 0.000)				
24MG 25				9.458 (3)+	25 4 FS 2
24MG 26				9.516 1 (4+)	26 10 FS 5
24MG 27				9.528 (6+)	27 9 FS 3
24MG 28				9.532 0 2+,3,4+	28 11 FS 5
24MG 29	9.828 0&1	1+			29 330 AS 70
24MG 30	9.967 1	1+			30 76 AS 11
24MG 31			10.028 0 5-		31 62 FS 18
24MG 32				10.059 1 (1,2)+	32 3 FS LT
24MG 33				10.111 0	33 5 KEV LT
24MG 34	10.161	0+			34
24MG 35				10.333 0	35 7 KEV LT
24MG 36	10.361 0	2+			36 1.5 FS 3
24MG 37	10.576 0	4+			37 9 FS 4

24MG	38						10.581	2+,3,4+		38	2 FS	LT
24MG	39						10.660	1,2+		39		
24MG	40						10.660	(4+)		40	2 FS	LT
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24MG	41		10.680	0	0+					41	2.1 EV	8
24MG	42		10.712	1	1+					42	24 AS	3
24MG	43		10.731	0	2+					43	7 FS	3
24MG	44						10.821	3+,4+		44		
24MG	45		10.917	0	2+					45	7.5 EV	11
24MG	46						11.010	1 3		46		
24MG	47		11.016	0	2+					47	3 EV	GT
24MG	48						11.128			48	26 FS	4
24MG	49						11.162	0 3-		49	3 KEV	LT
24MG	50						11.181	(3)-		50		
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24MG	51						11.187			51		
24MG	52						11.208	0&1		52	0.0022 EV	12
24MG	53		11.217	0	4+					53	0.78 EV	11
24MG	54						11.293	(2+,3,4+)		54	20 FS	3
24MG	55						11.314	(3)+		55		
24MG	56						11.330			56		
24MG	57						11.390	0 1-		57	0.5 KEV	
24MG	58						11.394	0		58		
24MG	59		11.453	0	2+					59	2 KEV	LT
24MG	60		11.457	0	2+					60	1 KEV	AP
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24MG	61		11.518	0	2+					61	0.5 KEV	
24MG	62						11.528	0		62		
24MG	63						11.596	0 3-		63	15 FS	4
24MG	64						11.618	0		64		
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S-p	=	11.693	( 0.000)	-----								
24MG	65		11.696	0	4+					65	1.6 EV	6
24MG	66		11.728	0	0+					66	10 KEV	2
24MG	67						11.827			67		
24MG	68						11.862			68	62 FS	24
24MG	69						11.865	0 1-		69	7.0 KEV	3
24MG	70						11.904	0		70	5.5 KEV	22
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24MG	71						11.931	0		71	0.02 KEV	
24MG	72		11.970	0	2+					72	2.4 KEV	5
24MG	73		11.988	0	2+					73	0.002 KEV	
24MG	74						12.002	0		74	1 KEV	LT
24MG	75						12.015	0 3-		75	0.7 KEV	2
24MG	76		12.049	0&1	4+					76	0.02 KEV	LT
24MG	77						12.120	0 (2,3,4)+		77	1.9 KEV	3
24MG	78						12.128			78		
24MG	79		12.161	0	4+					79	0.9 KEV	3
24MG	80						12.181	(1,2+)		80	0.05 KEV	LT
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24MG	81						12.257	0 (3-)		81	1.2 KEV	6

24MG 82		12.258	2+				82	0.06 KEV	LT
24MG 83						12.339	2+,3,4+	83	0.07 KEV LT
24MG 84						12.344		84	3.5 FS 14
24MG 85						12.383	0	85	7 KEV 2
24MG 86						12.399	0 2+,3,4+	86	0.09 KEV LT
24MG 87		12.403	0&1 2+					87	0.1 KEV LT
24MG 88						12.441	0	88	11 FS 3
24MG 89						12.449	0	89	5.7 KEV 4
24MG 90		12.468	0 2+					90	3.8 KEV 3
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24MG 91		12.504	0 4+					91	2.3 KEV 3
24MG 92						12.526	0&1 1,2+	92	7.5 KEV 10
24MG 93		12.577	0 2+					93	6.2 KEV 6
24MG 94		12.637	0&1 4+					94	0.03 KEV 20
24MG 95						12.657	0	95	0.09 KEV 80
24MG 96					12.659	0 3-		96	0.9 KEV 3
24MG 97						12.670	1 2	97	4.0 KEV 5
24MG 98						12.731	0	98	0.6 KEV LT
24MG 99		12.737	0 2+					99	8.2 KEV 5
24MG 100		12.776	0 2+					100	31 KEV 6
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24MG 101		12.806	0 2+					101	1.8 KEV 5
24MG 102						12.816	0&1 1+,2+	102	2.8 KEV 3
24MG 103						12.845	0 3-,4+	103	0.2 KEV 1
24MG 104						12.850	0	104	0.32 KEV 3
24MG 105						12.852	1+,2+	105	1.0 KEV 1
24MG 106						12.861	0 2+,3-	106	1 KEV LT
24MG 107						12.893	0 1+,2,3+	107	0.32 KEV 3
24MG 108						12.920	0&1 2+,3,4+	108	6.0 KEV 6
24MG 109						12.955	1 1+,2+	109	2.5 KEV 3
24MG 110						12.962	0 1+,2+	110	3.2 KEV 3
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24MG 111						12.966	0	111	1.5 KEV LT
24MG 112		12.972	0 4+					112	3.3 KEV 3
24MG 113						12.996	1	113	0.3 KEV 2
24MG 114						13.028	1 2+,3-	114	1.8 KEV 2
24MG 115		13.044	0&1 0+					115	2.8 KEV 6
24MG 116						13.050	0&1 3-,4+	116	0.09 KEV 3
24MG 117					13.056	0 4-		117	1 KEV LT
24MG 118						13.087	0&1 2+,3-	118	9 KEV 3
24MG 119						13.131	0	119	7 KEV 1
24MG 120						13.137	0	120	5.4 KEV 5
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24MG 121						13.144	0	121	3.2 KEV 5
24MG 122						13.158	0	122	1.7 KEV 7
24MG 123						13.183	0	123	6.0 KEV 4
24MG 124						13.198	0	124	2.7 KEV 4
24MG 125						13.213	0	125	2.3 FS 12
24MG 126						13.253	0	126	36 KEV 3
24MG 127						13.267	0	127	6.0 KEV 6

24MG 128				13.274 0		128	2 KEV	AP
24MG 129				13.332 0		129	31 KEV	3
24MG 130		13.344 0&1 3+				130	1.2 KEV	2
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24MG 131				13.353 1		131	9.0 KEV	9
24MG 132				13.365 1		132	1.6 KEV	7
24MG 133				13.417 0		133	4.5 KEV	5
24MG 134				13.423 0		134	4.0 KEV	7
24MG 135				13.429 0		135	15.0 KEV	25
24MG 136				13.436 0		136	1 KEV	LT
24MG 137				13.445 0	1+,2+	137	0.4 KEV	LT
24MG 138				13.451 0		138	2.1 KEV	2
24MG 139				13.473	2+,3,4+	139	1 KEV	LT
24MG 140				13.481 0		140	1.2 KEV	3
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24MG 141				13.540 0		141	6.9 KEV	10
24MG 142				13.581 0		142	22 KEV	2
24MG 143				13.585 0		143	8.0 KEV	10
24MG 144				13.631 0		144	1.5 KEV	2
24MG 145				13.675 0		145	5.1 KEV	5
24MG 146				13.682 0		146	23 KEV	3
24MG 147				13.719 0		147	2.6 KEV	3
24MG 148				13.767 0		148	2.5 KEV	5
24MG 149				13.798 0		149	5 KEV	1
24MG 150				13.810 0		150	24 KEV	4
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24MG 151				13.820 0		151	30 KEV	5
24MG 152				13.840 0		152	2.5 KEV	5
24MG 153				13.850 0		153	1 KEV	LT
24MG 154				13.879 0		154	2.0 KEV	2
24MG 155				13.884 0		155	48 KEV	8
24MG 156				13.888 0		156	13 KEV	3
24MG 157				13.933 0		157	3.0 KEV	6
24MG 158				13.946 0		158	8.0 KEV	8
24MG 159				13.982 0		159	2 KEV	AP
24MG 160				14.017 0		160	8.5 KEV	9
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24MG 161				14.024 0		161	6.5 KEV	7
24MG 162				14.076 0		162	24 KEV	5
24MG 163				14.079 0		163	5.5 KEV	6
24MG 164				14.098 0		164	1.4 KEV	4
24MG 165				14.146 0		165	1.8 KEV	4
24MG 166				14.148 0		166	6.2 KEV	7
24MG 167				14.153 0		167	4 FS	LT
24MG 168				14.241 0		168	11.3 KEV	14
24MG 169				14.325 0		169	1 KEV	LT
24MG 170				14.410 0		170		
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24MG 171				14.500		171		
24MG 172				14.560		172		

24MG 173				14.740		173
24MG 174				14.920 0		174
24MG 175				15.150 0		175
24MG 176				15.210		176
24MG 177				15.370 2		177
24MG 178		15.436 2 0+				178 1.0 KEV 3
24MG 179				15.540		179
24MG 180				15.640		180
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24MG 181				15.800 0		181
24MG 182				16.070 0		182
24MG 183				16.300 0		183
S-n	=	16.531 ( 0.000)	-----			
24MG 184				16.560 0		184
24MG 185				16.590 0		185
24MG 186				16.904 0		186 7 FS LT
S-p	=	11.693 ( 0.000)	-----			
S-n	=	16.531 ( 0.000)	-----			
S-2p	=	20.487 ( 0.000)	-----			
S-2n	=	29.676 ( 0.000)	-----			
S-alpha	=	9.317 ( 0.000)	-----			
S+p	=	-2.271 ( 0.000)				
S+n	=	-7.331 ( 0.000)				
S+2p	=	-7.785 ( 0.000)				
S+2n	=	-18.424 ( 0.000)				
S+alpha	=	-9.984 ( 0.000)				
gap p	=	9.421 ( 0.000)				
gap n	=	9.201 ( 0.000)				
gap 2p	=	12.701 ( 0.000)				
gap 2n	=	11.253 ( 0.000)				
gap alpha	=	-0.668 ( 0.000)				