

^{97}Mo $Z = 42$ $N = 55$ adopted link ENSDF link

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

BE = 837.604 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
97MO 1	0.000	5/2+			1 STABLE
97MO 2				0.275	2
97MO 3				0.320	3 1/2:9/2+
97MO 4				0.373	4 1/2:9/2+
97MO 5	0.481	3/2+			5 12.9 PS 19
97MO 6	0.528	5/2+			6
97MO 7				0.576	7 1/2:11/2-
97MO 8	0.658	7/2+			8 2.0 PS 5
97MO 9	0.680	1/2+			9 28.9 PS 19
97MO 10	0.719	5/2+			10 10 PS 5
97MO 11	0.721	3/2+			11 4 PS +5-3
97MO 12				0.753	12 (3/2+,5/2+)
97MO 13				0.787	13 1/2:11/2-
97MO 14				0.795	14 (1/2+)
97MO 15	0.824	5/2+			15
97MO 16	0.888	1/2+			16 2.7 PS 9
97MO 17				0.993	17 (3/2+,5/2+)
97MO 18				1.004	18 1/2:9/2+
97MO 19	1.024	7/2+			19 0.55 PS 12
97MO 20	1.025	5/2+			20
97MO 21	1.093	3/2+			21 1.3 PS +16-7
97MO 22			1.116	11/2-	22
97MO 23	1.117	9/2+			23 1.20 PS 8
97MO 24				1.120	24 3/2+,5/2+
97MO 25				1.134	25 7/2+,9/2+
97MO 26	1.222	5/2+			26
97MO 27				1.265	27 3/2+,5/2+
97MO 28				1.268	28 3/2:7/2-
97MO 29	1.269	7/2+			29 0.53 PS 20
97MO 30	1.271	5/2+			30
97MO 31				1.285	31 3/2+,5/2+ 0.7 PS +5-6
97MO 32				1.321	32 3/2 7 NS LT
97MO 33				1.341	33 1/2:9/2+
97MO 34	1.409	11/2+			34 7 NS LT
97MO 35			1.437	11/2-	35 2.5 NS 3
97MO 36	1.516	9/2+			36 1.48 PS 23
97MO 37	1.516	3/2+			37
97MO 38				1.545	38+ (7/2+,9/2+,11/2) 7 NS LT

97MO	39	1.548	1/2+					39		
97MO	40	1.550	5/2+					40		

97MO	41			1.557	7/2-			41		
97MO	42					1.563	3/2+,5/2+	42		
97MO	43					1.566	(7/2)	43	7 NS	LT
97MO	44					1.621	1/2:9/2+	44		
97MO	45	1.630	7/2+					45	7 NS	LT
97MO	46					1.698	(9/2+)	46		
97MO	47					1.701	(1/2+)	47		
97MO	48					1.724	3/2,5/2+	48		
97MO	49					1.728	(7/2+)	49		
97MO	50					1.758	(1/2,3/2,5/2+)	50		

97MO	51	1.763	9/2+					51		
97MO	52					1.783	(11/2+)	52	7 NS	LT
97MO	53					1.786	7/2+,9/2+	53		
97MO	54					1.790	(1/2,3/2)	54		
97MO	55					1.848	(5/2,7/2)	55		
97MO	56					1.848		56		
97MO	57					1.871	1/2:9/2+	57		
97MO	58	1.921	13/2+					58	7 NS	LT
97MO	59					1.930	(3/2,5/2)	59		
97MO	60					1.940	(5/2+)	60	7 NS	LT

97MO	61	1.955	5/2+					61		
97MO	62	1.962	7/2+					62		
97MO	63					1.986	(3/2,5/2,7/2)	63		
97MO	64					1.990	(3/2,5/2)	64		
97MO	65					2.002	(7/2+,9/2+)	65		
97MO	66			2.002	15/2-			66		
97MO	67	2.034	1/2+					67		
97MO	68					2.041	(7/2-)	68		
97MO	69					2.050	7/2+,9/2+	69		
97MO	70					2.055	(5/2,7/2)	70		

97MO	71					2.061		71		
97MO	72					2.074		72		
97MO	73			2.092	3/2-			73		
97MO	74					2.152	3/2+,5/2+	74		
97MO	75					2.160	(13/2,15/2-)	75		
97MO	76					2.164	3/2+,5/2+	76		
97MO	77					2.197		77		
97MO	78					2.220	1/2:11/2-	78		
97MO	79					2.222	3/2+,5/2+	79		
97MO	80					2.244		80		

97MO	81					2.258	(9/2,11/2)	81		
97MO	82					2.267	1/2-,3/2-	82		
97MO	83					2.271		83		

97MO 84				2.279	(3/2,5/2+)	84
97MO 85				2.315	3/2+,5/2+	85
97MO 86				2.331	(7/2+)	86
97MO 87				2.348	(1/2-,3/2-)	87
97MO 88				2.357		88
97MO 89				2.366	(9/2)+	89
97MO 90	2.378	5/2+				90

97MO 91				2.388	1/2-,3/2-	91
97MO 92	2.410	5/2+				92
97MO 93				2.426	9/2-,11/2-	93
97MO 94				2.434	(15/2+)	94
97MO 95				2.460	(1/2-,3/2-)	95
97MO 96	2.462	1/2+				96
97MO 97	2.491	5/2+				97
97MO 98				2.498	(1/2,3/2,5/2+)	98
97MO 99	2.511	9/2+				99
97MO 100				2.513	3/2+,5/2+	100

97MO 101				2.539	7/2+,9/2+	101
97MO 102	2.557	1/2+				102
97MO 103				2.560		103
97MO 104				2.564	(1/2,3/2,5/2+)	104
97MO 105				2.579	(1/2+,3/2,5/2+)	105
97MO 106				2.610	1/2:9/2+	106
97MO 107				2.627		107
97MO 108				2.643	(3/2+,5/2+)	108
97MO 109				2.649	(7/2+,9/2+)	109
97MO 110				2.650	3/2+,5/2+	110

97MO 111				2.677	3/2+,5/2+	111
97MO 112				2.697	3/2+,5/2+	112
97MO 113				2.708		113
97MO 114				2.712	(17/2+)	114
97MO 115				2.725	(19/2-)	115
97MO 116				2.745	1/2-,3/2-	116
97MO 117				2.772	7/2+,9/2+	117
97MO 118	2.793	5/2+				118
97MO 119				2.814		119
97MO 120				2.829	(19/2+)	120

97MO 121				2.831	1/2-,3/2-	121
97MO 122				2.833	3/2+,5/2+	122

S-alpha=	2.848 (0.000)					
97MO 123	2.859	5/2+				123
97MO 124				2.875	1/2-,3/2-	124
97MO 125				2.878	3/2+,5/2+	125
97MO 126	2.896	5/2+				126
97MO 127				2.906	3/2+,5/2+	127
97MO 128				2.925	(5/2,7/2)-	128

97MO 129				2.950	3/2+,5/2+	129
97MO 130				2.976	3/2:13/2+	130

97MO 131				3.008	1/2-,3/2-	131
97MO 132				3.015	3/2+,5/2+	132
97MO 133				3.020	3/2:7/2-	133
97MO 134				3.035	(3/2+,5/2+)	134
97MO 135				3.052	1/2-,3/2-	135
97MO 136				3.074	3/2+,5/2+	136
97MO 137				3.076	3/2:7/2-	137
97MO 138				3.096		138
97MO 139				3.111	1/2-,3/2-	139
97MO 140				3.122		140

97MO 141		3.154	1/2+			141
97MO 142				3.170		142
97MO 143				3.191	1/2:11/2-	143
97MO 144				3.217	3/2+,5/2+	144
97MO 145				3.258	1/2-,3/2-	145
97MO 146				3.293		146
97MO 147				3.338	7/2+,9/2+	147
97MO 148				3.345	1/2-,3/2-	148
97MO 149				3.370	3/2+,5/2+	149
97MO 150				3.391	3/2+,5/2+	150

97MO 151				3.406	7/2+,9/2+	151
97MO 152				3.466	(3/2+,5/2+)	152
97MO 153				3.501	3/2+,5/2+	153
97MO 154				3.547	(7/2+,9/2+)	154
97MO 155				3.567	7/2+,9/2+	155
97MO 156				3.572	(23/2-)	156
97MO 157				3.596		157
97MO 158				3.620	3/2+,5/2+	158
97MO 159				3.659	7/2+,9/2+	159
97MO 160				3.682		160

97MO 161				3.706		161
97MO 162				3.734	7/2+,9/2+	162
97MO 163				3.748	(21/2)	163
97MO 164				3.786	(3/2+,5/2+)	164
97MO 165				3.793		165
97MO 166				3.892		166
97MO 167				3.912	(3/2+,5/2+)	167
97MO 168				3.935	(3/2+,5/2+)	168
97MO 169				3.959	1/2-,3/2-	169
97MO 170				3.983	(3/2+,5/2+)	170

97MO 171				4.025		171
97MO 172				4.053		172
97MO 173				4.073	1/2-,3/2-	173

97M0 174			4.121		174
97M0 175			4.144	(3/2+,5/2+)	175
97M0 176			4.254	1/2-,3/2-	176
97M0 177			4.298	1/2-,3/2-	177
97M0 178			4.423	1/2-,3/2-	178
97M0 179			4.470	1/2-,3/2-	179
97M0 180			4.472	(25/2)	180

97M0 181			4.519	(27/2-)	181
97M0 182			5.503	(31/2-)	182

S-p = 9.231 (0.000)-----
 S-n = 6.821 (0.000)-----
 S-2p = 16.463 (0.001)-----
 S-2n = 15.975 (0.000)-----
 S-alpha= 2.848 (0.000)-----

S+p = -6.177 (0.003)
 S+n = -8.643 (0.000)
 S+2p = -14.659 (0.000)
 S+2n = -14.568 (0.000)
 S+alpha = -2.838 (0.000)

gap p = 3.054 (0.003)
 gap n = -1.821 (0.000)
 gap 2p = 1.804 (0.001)
 gap 2n = 1.407 (0.000)
 gap alpha = 0.009 (0.001)