

$^{49}\text{V}$        $Z = 23$        $N = 26$       adopted link      ENSDF link

Based on ensdf\_240402 (Apr 2024), and mass evaluation from 2020

BE = 425.463 ( 0.001) MeV

Qbeta+ = 0.602 ( 0.001) MeV

	Energy T	J+	J-	J-other	T1/2
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49V 1			0.000 7/2-		1 330 D 15
49V 2			0.091 5/2-		2 228 PS 13
49V 3			0.153 3/2-		3 19.90 NS 24
49V 4	0.748	3/2+			4 5.3 PS 6
49V 5			1.022 11/2-		5 3.4 PS 6
49V 6	1.141	5/2+			6 1.3 PS 6
49V 7			1.155 9/2-		7 1.1 PS 3
49V 8				1.183	8
49V 9			1.515 5/2-		9 31 FS 12
49V 10	1.603	7/2+			10 0.47 PS 22
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49V 11				1.610 (9/2-,11/	11
49V 12				1.643 (3/2-,5/2	12 36 FS 11
49V 13	1.646	(1/2+)			13 6.6 PS 10
49V 14			1.661 3/2-		14 16 FS 7
49V 15	1.995	3/2(+)			15 0.49 PS 21
49V 16	2.178	9/2+			16 0.56 PS +49-28
49V 17			2.182 7/2-		17 33 FS 12
49V 18				2.204 (5/2-,7/2	18
49V 19				2.234 5/2	19 12 FS 8
49V 20			2.263 15/2-		20 0.65 PS +38-19
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49V 21			2.265 5/2-		21 35 FS 9
49V 22				2.279 1/2-,3/2-	22
49V 23			2.309 3/2-		23 14 FS 7
49V 24			2.353 9/2-		24 33 FS 12
49V 25	2.388	5/2+			25 57 FS 20
49V 26			2.408 (7/2-)		26 8 FS LT
49V 27			2.671 (11/2)-		27 11 FS LT
49V 28				2.671 7/2-,9/2,	28 33.3 PS LT
49V 29				2.680 (7/2,9/2)	29
49V 30			2.727 15/2-		30 0.10 PS 4
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49V 31	2.741	11/2+			31 0.39 PS +36-17
49V 32			2.786 (9/2)-		32 11 FS LT
49V 33				2.797	33
49V 34	2.808	5/2+			34 0.32 PS 6
49V 35				2.811 5/2-,7/2-	35 12 FS LT
49V 36			2.862 13/2-		36 0.10 PS 6

49V	37						3.017		37	33.3	PS	LT
49V	38						3.134	(9/2,11/2	38	0.22	PS	+8-4
49V	39						3.134	7/2,9/2(+	39	33.3	PS	LT
49V	40						3.152		40			
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49V	41						3.224	(1/2,3/2,	41			
49V	42				3.240		7/2-		42	33.3	PS	LT
49V	43						3.242	(3/2,5/2,	43			
49V	44		3.248		1/2+				44			
49V	45						3.260	(GE 9/2)	45			
49V	46						3.303	3/2-,5/2,	46	33.3	PS	LT
49V	47				3.305		(13/2-)		47			
49V	48		3.325		(1/2+ T		7/2+)		48			
49V	49				3.325		(17/2-)		49			
49V	50						3.341		50	33.3	PS	LT
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49V	51		3.342		(13/2+)				51			
49V	52		3.342		(1/2+ T		9/2+)		52			
49V	53						3.388	(3/2,5/2-	53			
49V	54						3.388	5/2,7/2	54	33.3	PS	LT
49V	55				3.405		(3/2)-		55			
49V	56		3.463		(3/2+ T		9/2+)		56	33.3	PS	LT
49V	57				3.479		(7/2-)		57			
49V	58						3.501		58	33.3	PS	LT
49V	59				3.516		(3/2- T0		59			
49V	60						3.521	(LE 9/2)	60			
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49V	61						3.531	(LE 7/2-)	61			
49V	62						3.531	5/2-,7/2,	62	33.3	PS	LT
49V	63						3.603		63			
49V	64				3.609		(7/2-)		64			
49V	65						3.612	(GE 11/2-	65			
49V	66						3.624	LE 9/2	66	33.3	PS	LT
49V	67				3.640		(7/2-)		67	33.3	PS	LT
49V	68						3.666	11/2	68	33.3	PS	LT
49V	69		3.671		(1/2+ T		9/2+)		69			
49V	70				3.678		(7/2)-		70			
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49V	71						3.694	3/2+,5/2+	71			
49V	72						3.721	(LE 7/2)-	72			
49V	73						3.741	1/2-,3/2-	73			
49V	74				3.742		(19/2-)		74			
49V	75						3.757	5/2-,7/2-	75			
49V	76		3.771		(1/2+ T		9/2+)		76			
49V	77						3.782	(GE 9/2)	77			
49V	78				3.795		(-)		78			
49V	79						3.816	(LE 7/2-)	79			
49V	80				3.825		(-)		80			
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49V	81						3.841	1/2(+),3/	81			

49V 82						3.885	82
49V 83				3.912	(3/2)-		83
49V 84		3.927	(1/2+ T	9/2+)			84
49V 85						3.960 (3/2-,5/2	85
49V 86				3.975	(-)		86
49V 87				4.002	(3/2)-		87
49V 88						4.035 (3/2- T0	88
49V 89						4.048	89
49V 90						4.064	90
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49V 91						4.088 3/2(-),5/	91
49V 92						4.098 (LE 7/2-)	92
49V 93				4.129	(5/2)-		93
49V 94						4.152	94
49V 95						4.165	95
49V 96				4.218	(3/2)-		96
49V 97						4.253 1/2-,3/2-	97
49V 98						4.259 (3/2,5/2,	98
49V 99						4.270	99
49V 100						4.289 3/2+,5/2+100	
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49V 101						4.316	101
49V 102						4.359	102
49V 103						4.373 1/2-,3/2-	103
49V 104						4.397 5/2-,7/2-	104
49V 105						4.422	105
49V 106						4.436	106
49V 107						4.470	107
49V 108						4.498 5/2(-),7/108	
49V 109						4.502 1/2-,3/2-	109
49V 110						4.540	110
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49V 111						4.590	111
49V 112						4.599	112
49V 113				4.635	(5/2)-		113
49V 114						4.662 3/2+,5/2+114	
49V 115						4.740 3/2+,5/2+115	
49V 116						4.796 (GE 11/2)	116
49V 117						4.840 1/2-,3/2-	117
49V 118						4.863	118
49V 119						4.885	119
49V 120						4.947 1/2-,3/2-	120
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49V 121		4.959	1/2+				121
49V 122						4.988	122
49V 123						5.010 5/2-,7/2-	123
49V 124						5.042	124
49V 125						5.057 1/2-,3/2-	125
49V 126						5.072 3/2+,5/2+126	
49V 127						5.134	127

49V 128						5.212	1/2-, 3/2-128
49V 129						5.230	129
49V 130						5.257	1/2-, 3/2-130
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49V 131		5.292	1/2+				131
49V 132						5.347	(3/2+, 5/2)132
49V 133						5.387	1/2-, 3/2-133
49V 134						5.411	5/2-, 7/2-134
49V 135		5.522	1/2+				135
49V 136					5.530	(21/2-)	136
49V 137						5.554	137
49V 138						5.597	1/2-, 3/2-138
49V 139						5.631	(3/2+, 5/2)139
49V 140						5.676	1/2-, 3/2-140
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49V 141					5.690	(23/2-)	141
49V 142						5.718	1/2-, 3/2-142
49V 143						5.826	5/2-, 7/2-143
49V 144						5.889	1/2-, 3/2-144
49V 145						5.931	(3/2+, 5/2)145
49V 146						5.947	5/2-, 7/2-146
49V 147						5.987	1/2-, 3/2-147
49V 148						6.045	1/2-, 3/2-148
49V 149						6.058	(3/2+, 5/2)149
49V 150						6.146	1/2-, 3/2-150
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49V 151						6.184	151
49V 152						6.220	1/2-, 3/2-152
49V 153						6.258	153
49V 154						6.286	154
49V 155						6.333	1/2-, 3/2-155
49V 156						6.368	156
49V 157						6.392	157
49V 158						6.430	158
49V 159						6.474	159
49V 160						6.521	160
-----							
49V 161						6.555	1/2-, 3/2-161
49V 162						6.563	(3/2+, 5/2)162
49V 163						6.603	1/2-, 3/2-163
49V 164						6.661	164
49V 165						6.683	165
49V 166						6.711	166
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S-p	=	6.758	( 0.001)	-----			
49V 167						6.816	167
49V 168					6.845	(23/2-)	168
49V 169						6.856	169
49V 170						6.892	170
-----							
49V 171						6.943	171

49V 172				6.978		172
49V 173				7.054		173
49V 174				7.099		174
49V 175				7.137		175
49V 176				7.240		176
49V 177				7.290		177
49V 178				7.365		178
49V 179				7.430		179
49V 180				7.478		180
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49V 181				7.554		181
49V 182				7.605		182
49V 183				7.645		183
49V 184		7.745	5/2 3/2-			184 8.9 EV 30
49V 185		7.750	5/2 3/2-			185 6.7 EV 20
49V 186		7.801	(25/2-)			186
49V 187		7.839	(1/2-)			187
49V 188		7.910	(1/2-)			188
49V 189		7.944	(3/2-)			189
49V 190		8.013	(3/2-)			190
-----						
49V 191				8.058	(3/2,5/2+)	191
49V 192				8.072	(5/2)	192
49V 193		8.093	(1/2-)			193 53 EV 15
49V 194				8.104	3/2(-),5/2	194
49V 195				8.118	3/2	195
49V 196		8.132	(3/2-)			196
49V 197				8.192		197
49V 198				8.246		198
49V 199		8.290	3/2(-)			199
49V 200				8.371		200
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49V 201				8.405		201
49V 202		8.416	(27/2-)			202
49V 203				8.444		203
49V 204				8.525	(5/2)	204
49V 205		8.628	(3/2-)			205
49V 206				8.633	(5/2)	206
49V 207		8.641	(3/2-)			207
49V 208				8.643	(3/2-,5/2)	208
49V 209				8.682	(5/2)	209
49V 210				8.785	(5/2)	210
-----						
49V 211		8.789	(5/2-)			211
49V 212				8.851	(5/2-,7/2)	212
49V 213				8.867	(5/2)	213
49V 214				8.877	(5/2)	214
49V 215				8.881	(5/2)	215
49V 216		8.891	(3/2-)			216
49V 217		8.894	(5/2-)			217

49V 218						8.896 (5/2)	218	
49V 219						8.903 (5/2)	219	
49V 220						8.912 (5/2)	220	
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49V 221		8.921	(5/2+)				221	
49V 222					8.925	(7/2-)	222	
49V 223						8.928 (5/2)	223	
49V 224						8.943 (5/2)	224	
49V 225		8.945	(5/ (1/2+)				225	
49V 226		8.965	(5/2+)				226	
49V 227					8.998	(1/2-)	227	
49V 228		9.008	(5/2+)				228	
49V 229						9.030 (5/2)	229	
49V 230						9.038 (5/2)	230	
-----								
49V 231					9.045	(7/2-)	231	
49V 232						9.056 (5/2)	232	
49V 233						9.072 (5/2)	233	
49V 234						9.076 (5/2)	234	
49V 235					9.079	(3/2-)	235	
49V 236		9.083	(5/ (3/2+)				236	
49V 237						9.090 (3/2-,5/2237		
49V 238						9.094 (5/2)	238	
49V 239						9.118 (5/2)	239	
49V 240						9.132 (5/2)	240	
-----								
49V 241						9.136 (5/2)	241	
49V 242						9.148 (5/2)	242	
49V 243		9.154	(5/2+)				243	
49V 244						9.161 (1/2-,3/2244		
49V 245						9.168 (5/2)	245	
49V 246					9.169	(3/2-)	246	
49V 247						9.175 (5/2)	247	
49V 248						9.183 (5/2)	248	
49V 249						9.193 (5/2,7/2+249		
49V 250						9.195 (5/2)	250	
S-alpha=		9.315	( 0.001)	-----				
-----								
49V 251					9.568	(1/2-)	251	
49V 252					9.662	3/2-	252	
49V 253					10.230	(5/2)-	253	
49V 254		10.925	(5/2)+				254	
49V 255		11.150	(9/2+)				255	
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S-p	=	6.758	( 0.001)	-----				
S-n	=	11.555	( 0.001)	-----				
S-2p	=	18.203	( 0.002)	-----				
S-2n	=	22.098	( 0.001)	-----				
S-alpha=		9.315	( 0.001)	-----				

S+p = -9.588 ( 0.001)  
S+n = -9.332 ( 0.001)  
S+2p = -14.859 ( 0.001)  
S+2n = -20.384 ( 0.001)  
S+alpha = -9.153 ( 0.001)

gap p = -2.830 ( 0.001)  
gap n = 2.223 ( 0.002)  
gap 2p = 3.344 ( 0.002)  
gap 2n = 1.714 ( 0.001)  
gap alpha = 0.162 ( 0.001)