

^{49}V $Z = 23$ $N = 26$ [link to full NNDC output](#)

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

BE = 425.462 (0.001) MeV

Qbeta+ = 0.602 (0.001) MeV

	Energy T	J+	J-	J-other	T1/2
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
49V 11				1.610 (9/2-,11/2-)	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
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-,9/2,11/2+	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
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	(9/2,11/2,13/2)	38	0.22	PS	+8-4
49V	39				3.134	7/2,9/2(+)	39	33.3	PS	LT
49V	40				3.152		40			

49V	41				3.224	(1/2,3/2,5/2-)	41			
49V	42			3.240	7/2-		42	33.3	PS	LT
49V	43				3.242	(3/2,5/2,7/2-)	43			
49V	44	3.248	1/2+				44			
49V	45				3.260	(GE 9/2)	45			
49V	46				3.303	3/2-,5/2,7/2,9/2	46	33.3	PS	LT
49V	47				3.305	(13/2-)	47			
49V	48				3.325	(1/2+ TO 7/2+)	48			
49V	49				3.325	(17/2-)	49			
49V	50				3.341		50	33.3	PS	LT

49V	51				3.342	(13/2+)	51			
49V	52				3.342	(1/2+ TO 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+ TO 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- TO 9/2)	59			
49V	60				3.521	(LE 9/2)	60			

49V	61				3.531	(LE 7/2-)	61			
49V	62				3.531	5/2-,7/2,9/2+	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+ TO 9/2+)	69			
49V	70				3.678	(7/2)-	70			

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+ TO 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			

49V	81				3.841	1/2(+),3/2,5/2-	81			
49V	82				3.885		82			

49V 83				3.912	(3/2)-	83
49V 84				3.927	(1/2+ T0 9/2+)	84
49V 85				3.960	(3/2-,5/2,7/2-)	85
49V 86				3.975	(-)	86
49V 87				4.002	(3/2)-	87
49V 88				4.035	(3/2- T0 9/2+)	88
49V 89				4.048		89
49V 90				4.064		90

49V 91				4.088	3/2(-),5/2,7/2-	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	(3/2,5/2,7/2)	98
49V 99				4.270		99
49V 100				4.289	3/2+,5/2+	100

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(-),7/2(-)	108
49V 109				4.502	1/2-,3/2-	109
49V 110				4.540		110

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

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

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

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

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
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		

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		

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

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-, 5/2)	237
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-, 3/2)	244
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

S-p	=	6.758	(0.001)	-----		
S-n	=	11.556	(0.001)	-----		
S-2p	=	18.203	(0.002)	-----		
S-2n	=	22.098	(0.001)	-----		
S-alpha=	9.315	(0.001)	-----			

S+p = -9.589 (0.001)
S+n = -9.333 (0.001)
S+2p = -14.860 (0.001)
S+2n = -20.385 (0.001)
S+alpha = -9.153 (0.001)

gap p = -2.831 (0.001)
gap n = 2.222 (0.002)
gap 2p = 3.343 (0.002)
gap 2n = 1.713 (0.001)
gap alpha = 0.162 (0.001)