

^{52}Cr $Z = 24$ $N = 28$ [link to full NNDC output](#)

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

BE = 456.351 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
52CR 1	0.000	0+			1 STABLE
52CR 2	1.434	2+			2 0.783 PS 21
52CR 3	2.370	4+			3 6.7 PS +35-17
52CR 4	2.647	0+			4
52CR 5	2.768	4+			5 1.9 PS 5
52CR 6	2.965	2+			6 0.42 PS 8
52CR 7	3.114	6+			7 41.4 PS 14
52CR 8	3.162	2+			8 0.035 PS 7
52CR 9	3.415	4+			9 0.26 PS 7
52CR 10	3.472	3+			10 7.2 PS 8
52CR 11	3.616	5+			11 2.6 PS 12
52CR 12				3.740 1+,1-,2+	12
52CR 13	3.772	2+			13 9 FS 2
52CR 14	3.947	2+			14 0.014 PS 7
52CR 15	3.951	2+			15
52CR 16	4.016	5+			16 0.61 PS +27-19
52CR 17	4.039	4+			17 26 FS 4
52CR 18			4.100 3-		18
52CR 19			4.470 3-		19
52CR 20			4.563 3-		20 40 FS 6
52CR 21				4.584 (6+)	21
52CR 22				4.611 (3,4)+	22
52CR 23	4.627	4+			23
52CR 24	4.702	2+			24
52CR 25	4.730	4+			25
52CR 26	4.742	0+			26
52CR 27	4.750	8+			27 0.08 PS 10
52CR 28				4.800 1+,1-,2+	28
52CR 29	4.806	6+			29 0.49 PS +28-14
52CR 30				4.816 1+,2+	30
52CR 31				4.841 1+,1-,2+	31
52CR 32	4.951	4+			32
52CR 33	5.054	4+			33
52CR 34	5.095	4+			34
52CR 35				5.099 1	35 0.045 EV 10
52CR 36				5.139 (6+)	36
52CR 37				5.214 1	37 0.013 EV 3
52CR 38				5.285	38

52CR 39						5.346	4+,6+	39
52CR 40		5.397	7+					40 0.14 PS +12-9

52CR 41						5.410	(2+)	41
52CR 42		5.425	4+					42
52CR 43						5.432		43
52CR 44		5.446	4+					44
52CR 45						5.491	1+,1-,2+	45
52CR 46				5.500	3-			46
52CR 47						5.526	1	47 0.016 EV 3
52CR 48		5.541	4+					48
52CR 49						5.545	(1+)	49 0.112 EV 7
52CR 50						5.563	+	50

52CR 51						5.584	+	51
52CR 52		5.600	0+					52
52CR 53						5.633	(8+)	53
52CR 54						5.664	(2)+	54
52CR 55						5.725	+	55
52CR 56						5.738	(4+)	56
52CR 57						5.755	+	57
52CR 58						5.796	1+,2+	58
52CR 59						5.811	5,6+	59
52CR 60						5.818		60

52CR 61		5.825	8+					61 1.0 PS +6-4
52CR 62						5.860	+	62
52CR 63						5.865		63
52CR 64				5.873	3-			64
52CR 65						5.891	3-,4-	65
52CR 66						5.919	5,6+	66
52CR 67		5.953	2+					67
52CR 68						5.960		68
52CR 69				5.996	3-			69
52CR 70						6.026	+	70

52CR 71						6.035		71
52CR 72		6.055	2+					72
52CR 73						6.065		73
52CR 74		6.106	0+					74
52CR 75		6.137	2+					75
52CR 76		6.153	2+					76
52CR 77				6.164	3-			77
52CR 78		6.175	2+					78
52CR 79						6.193	+	79
52CR 80						6.205		80

52CR 81						6.210		81
52CR 82						6.220		82
52CR 83						6.233	+	83

52CR 84				6.243	3-				84
52CR 85							6.252		85
52CR 86							6.272		86
52CR 87							6.293		87
52CR 88							6.324		88
52CR 89							6.349	+	89
52CR 90							6.357	(9+)	90

52CR 91							6.365	(10+)	91
52CR 92							6.375		92
52CR 93							6.381	(6+)	93
52CR 94		6.390	1+						94 0.069 EV 7
52CR 95				6.392	3-				95
52CR 96							6.426		96
52CR 97							6.437		97
52CR 98		6.453	9+						98 0.14 PS +9-8
52CR 99							6.462	1	99 0.074 EV 7
52CR 100							6.482	5,6+	100

52CR 101		6.493	2+						101
52CR 102							6.496	1	102 0.131 EV 9
52CR 103				6.541	3-				103
52CR 104							6.568		104
52CR 105							6.580		105
52CR 106							6.637		106
52CR 107							6.678	+	107
52CR 108							6.700	-	108
52CR 109							6.704	5,6+	109
52CR 110		6.752	1+						110 0.089 EV 10

52CR 111				6.795	3-				111
52CR 112		6.810	2+						112
52CR 113				6.871	5-				113
52CR 114							6.894	+	114
52CR 115							6.928	+	115
52CR 116							6.956	5,6+	116
52CR 117				6.993	3-				117
52CR 118							7.015	1	118 0.210 EV 30
52CR 119		7.030	1+						119
52CR 120		7.091	1+						120 0.062 EV 11

52CR 121				7.100	3-				121
52CR 122							7.140	+	122
52CR 123							7.166	+	123 0.054 EV 11
52CR 124		7.217	2+						124
52CR 125							7.223	+	125
52CR 126		7.238	10+						126 0.16 PS +15-8
52CR 127							7.260	+	127
52CR 128		7.278	4+						128
52CR 129							7.310	+	129

52CR 130					7.322	+		130
52CR 131	7.342	1+						131
52CR 132	7.369	1+						132 0.229 EV 18
52CR 133			7.376	5-				133
52CR 134	7.395	5+						134
52CR 135					7.402	(12+)		135
52CR 136					7.403	1		136 0.107 EV 15
52CR 137			7.409	3-				137
52CR 138					7.450	0+,2+		138
52CR 139					7.458	5,6+		139
52CR 140			7.482	3-				140
52CR 141					7.487	+		141
52CR 142	7.524	1+						142 0.400 EV 28
52CR 143					7.560	+		143
52CR 144			7.585	3-				144
52CR 145					7.590	+		145
52CR 146					7.679	5,6+		146
52CR 147	7.700	1+						147
52CR 148			7.732	1-				148 0.960 EV 24
52CR 149			7.738	3-				149
52CR 150					7.750	+		150
52CR 151					7.760	+		151
52CR 152					7.810	-		152
52CR 153	7.820	1+						153
52CR 154			7.823	3-				154
52CR 155	7.854	4+						155
52CR 156	7.865	1+						156 0.435 EV 27
52CR 157					7.889	1		157 0.480 EV 45
52CR 158	7.893	4+						158
52CR 159			7.897	1-				159 3.38 EV 17
52CR 160			7.900	3-				160
52CR 161					7.920	+		161
52CR 162					7.930	+		162
52CR 163			7.967	3-				163
52CR 164					8.010	+		164
52CR 165					8.015	1		165 0.260 EV 59
52CR 166	8.022	2+						166
52CR 167					8.083	+		167
52CR 168			8.087	3-				168
52CR 169					8.091	1		169 0.734 EV 44
52CR 170			8.100	8-				170
52CR 171					8.121	+		171
52CR 172	8.179	1+						172 0.90 EV 18
52CR 173					8.190	+		173
52CR 174	8.213	0+						174

52CR 175	8.216	11+				175	0.24 PS	+17-9
52CR 176					8.250 +	176		
52CR 177				8.281 3-		177		
52CR 178					8.283 +	178		
52CR 179					8.337 (4+)	179		
52CR 180					8.350 +	180		

52CR 181				8.374 3-		181		
52CR 182					8.390 +	182		
52CR 183					8.412 +	183		
52CR 184				8.420 6-		184		
52CR 185					8.451 +	185		
52CR 186				8.457 3-		186		
52CR 187				8.505 3-		187		
52CR 188	8.569	0+				188		
52CR 189				8.600 3-		189		
52CR 190					8.617	190		

52CR 191				8.679 3-		191		
52CR 192					8.710 +	192		
52CR 193				8.728 3-		193		
52CR 194					8.766 1	194	0.441 EV	37
52CR 195				8.778 3-		195		
52CR 196					8.790 2	196		
52CR 197					8.827	197		
52CR 198					8.860 1+,(2-)	198		
52CR 199					8.890 1+,(2-)	199		
52CR 200					8.940 (8-,6-)	200		

52CR 201					8.958 1	201	0.233 EV	36
52CR 202	9.004	1+				202		
52CR 203					9.050 1+,(2-)	203		
52CR 204					9.080 (8-)	204		
52CR 205	9.140	1+				205	2.65 EV	15
52CR 206				9.200 5-		206		
52CR 207	9.212	1+				207	2.11 EV	14
52CR 208	9.245	1+				208		
52CR 209	9.327	1+				209	0.746 EV	80
S-alpha=	9.351	(0.000)	-----					
52CR 210					9.370 1+,2-	210		

52CR 211	9.429	1+				211	0.95 EV	11
52CR 212					9.439 12(+)	212		
52CR 213				9.450 8-		213		
52CR 214					9.470 1+,2+	214		
52CR 215	9.580	0+				215		
52CR 216	9.612	1+				216		
52CR 217				9.660 8-		217		
52CR 218	9.724	1+				218		
52CR 219				9.787 1-		219		

52CR 220	9.830	1+					220

52CR 221	9.878	1+					221
52CR 222			9.910	8-			222
52CR 223					9.981	(-)	223
52CR 224	10.008	1+					224
52CR 225					10.110	(8-)	225
52CR 226					10.130	1,2-	226
52CR 227					10.161	(13+)	227
52CR 228			10.180	2-			228
52CR 229					10.240	1	229
52CR 230					10.270	1, (2-)	230

52CR 231					10.300		231
52CR 232			10.330	6-			232
52CR 233					10.340	1	233
52CR 234	10.380	1+					234
52CR 235	10.433	1+					235
52CR 236	10.464	1+					236
52CR 237					10.500	1	237
S-p =	10.504 (0.001)						

52CR 238					10.510	(-)	238
52CR 239	10.604	1+					239
52CR 240					10.710	1	240

52CR 241					10.760	6+,8+	241
52CR 242	10.790	1+					242
52CR 243					10.800	(-)	243
52CR 244					10.820	1+, (2-)	244
52CR 245					10.927	1+,2-	245
52CR 246	10.970	0+					246
52CR 247			11.000	8-			247
52CR 248					11.070	1	248
52CR 249	11.140	0+					249
52CR 250					11.160	(1+),2	250

52CR 251			11.170	8-			251
52CR 252					11.229		252
52CR 253					11.257		253
52CR 254					11.265	+	254
52CR 255			11.270	8-			255
52CR 256					11.275	+	256
52CR 257					11.291		257
52CR 258					11.330	(1+),2-	258
52CR 259			11.370	8-			259
52CR 260	11.400 3	4+					260

52CR 261	11.402	1+					261
52CR 262			11.510	2-			262
52CR 263			11.550	8-			263

52CR 264						11.570	(1+),2	264
52CR 265						11.610	2	265
52CR 266						11.656	1+,2-	266
52CR 267				11.660		8-		267
52CR 268						11.692		268
52CR 269						11.713		269
52CR 270						11.725		270

52CR 271						11.745		271
52CR 272						11.765		272
52CR 273				11.770		8-		273
52CR 274						11.780	(1+),2-	274
52CR 275						11.837		275
52CR 276				11.880		8-		276
52CR 277				11.960		8-		277
52CR 278						12.035	-	278

S-n	=	12.039	(0.001)	-----			
52CR 279		12.042		4+				279
52CR 280						12.050	-	280

52CR 281		12.100		4+				281
52CR 282						12.130	(8-,6-)	282
52CR 283				12.240		6-		283
52CR 284						12.260	6+,8+	284
52CR 285						12.500	-	285
52CR 286		12.560		1+				286
52CR 287		12.665		3+				287
52CR 288						12.730	-	288
52CR 289						12.734		289
52CR 290		12.795		4+				290

52CR 291		12.900		1+				291
52CR 292						12.977	-	292
52CR 293						12.994	+	293
52CR 294						13.038	+	294
52CR 295				13.220		8-		295
52CR 296						13.319		296
52CR 297				13.393		6-		297
52CR 298		13.419		0+				298
52CR 299				13.570		6-		299
52CR 300						13.580	(1,2)-	300

52CR 301		13.630		0+				301
52CR 302				13.710		6-		302
52CR 303						13.950		303
52CR 304				14.030		6-		304
52CR 305		14.110		2+				305
52CR 306				14.340		6-		306
52CR 307				14.430		8-		307
52CR 308				15.270		6-		308

52CR 309		15.482	8-		309
52CR 310		16.400	6-		310

52CR 311					16.690 (8-) 311

S-p = 10.504 (0.001)-----
 S-n = 12.039 (0.001)-----
 S-2p = 18.566 (0.000)-----
 S-2n = 21.300 (0.001)-----
 S-alpha= 9.351 (0.000)-----

S+p = -6.560 (0.001)
 S+n = -7.939 (0.001)
 S+2p = -15.413 (0.001)
 S+2n = -17.658 (0.001)
 S+alpha = -7.613 (0.000)

gap p = 3.945 (0.001)
 gap n = 4.100 (0.001)
 gap 2p = 3.152 (0.001)
 gap 2n = 3.642 (0.001)
 gap alpha = 1.739 (0.001)