

$^{37}\text{Cl}$        $Z = 17$        $N = 20$       adopted link      ENSDF link

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

BE = 317.100 ( 0.000) MeV

	Energy T	J+	J-	J-other	T1/2
37CL 1	0.000	3/2+			1 STABLE
37CL 2	1.727	1/2+			2 0.13 PS 2
37CL 3	3.086	5/2+			3 37 FS 8
37CL 4			3.104	7/2-	4 14.7 PS 12
37CL 5				3.287	5
37CL 6	3.627	3/2+			6 31 FS 14
37CL 7	3.708	3/2+			7 44 FS 14
37CL 8			3.741	5/2-	8 21 FS 7
37CL 9			4.010	9/2-	9 22.8 PS 14
37CL 10	4.016	3/2+			10 0.11 PS 4
37CL 11			4.177	3/2-	11 0.8 PS +14-4
37CL 12	4.262	5/2+			12
37CL 13				4.269 1/2	13 42 FS 14
37CL 14			4.273	7/2-	14 76 FS 28
37CL 15				4.396 5/2	15 13 FS 5
37CL 16			4.460	7/2-	16 55 FS 20
37CL 17			4.546	11/2-	17 2.0 PS 6
37CL 18	4.801	5/2+			18 7 FS LT
37CL 19				4.811 7/2	19 0.35 PS GT
37CL 20				4.838 5/2	20 4 FS 2
37CL 21				4.854 3/2	21 3.5 FS LT
37CL 22	4.904	7/2+			22 24 FS 10
37CL 23			4.921	9/2-	23 55 FS 31
37CL 24				4.923 (5/2-,7/2)	24 0.14 PS LT
37CL 25				4.961 3/2	25 14 FS 6
37CL 26				4.974	26
37CL 27				5.009 (1/2:7/2+)	27 5 FS 3
37CL 28				5.055 (1/2:5/2+)	28
37CL 29				5.059 (3/2-:7/2+)	29
37CL 30				5.143	30
37CL 31				5.229 (1/2:7/2+)	31 7 FS LT
37CL 32			5.271	13/2-	32 2.0 PS 3
37CL 33				5.283 (1/2:5/2+)	33
37CL 34				5.307 (1/2+:5/2+)	34
37CL 35				5.317 (3/2:7/2+)	35
37CL 36				5.350	36
37CL 37				5.372 (1/2-:5/2+)	37
37CL 38				5.379 (3/2-,5/2,9/2)	38 104 FS 38

37CL 39						5.407	(1/2,3/2)	39		
37CL 40		5.491	5/2+					40	15 FS	6
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37CL 41						5.528	9/2	41	0.21 PS	7
37CL 42				5.547	11/2-			42	0.14 PS	5
37CL 43						5.570	(3/2-:7/2)	43	12 FS	6
37CL 44		5.595	9/2+					44		
37CL 45						5.618	(1/2-:9/2-)	45		
37CL 46						5.645	3/2+,5/2+	46	8 FS	LT
37CL 47				5.701	9/2-			47	0.2 PS	LT
37CL 48				5.705	11/2-			48	0.16 PS	5
37CL 49				5.726	7/2-			49	15 FS	6
37CL 50						5.909	(3/2-:9/2+)	50		
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37CL 51						5.915	(1/2-:7/2-)	51		
37CL 52						5.931	(3/2-:9/2)	52		
37CL 53						5.944	(1/2:9/2-)	53		
37CL 54		5.978	5/2+					54		
37CL 55						5.986	(1/2+:5/2)	55		
37CL 56						6.001	13/2	56		
37CL 57						6.015	(3/2,5/2)	57	6 FS	5
37CL 58						6.042	(1/2:5/2)	58	14 FS	8
37CL 59		6.046	11/2+					59	1.4 PS	GT
37CL 60				6.196	11/2-			60	0.22 PS	6
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37CL 61						6.305	(1/2:7/2-)	61		
37CL 62						6.324	(3/2:7/2)	62		
37CL 63						6.358	(1/2+:7/2+)	63		
37CL 64		6.372	5/2+					64		
37CL 65						6.415	(1/2:5/2+)	65		
37CL 66						6.488	(3/2:9/2-)	66		
37CL 67						6.601	(7/2-:13/2-)	67		
37CL 68						6.669	3/2+,5/2+	68		
37CL 69		6.702	5/2+					69	3.5 FS	LT
37CL 70						6.732	(1/2:9/2-)	70		
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37CL 71		6.800	13/2+					71	0.41 PS	7
37CL 72		7.020	15/2+					72	2.1 PS	10
37CL 73		7.079	5/2+					73		
37CL 74						7.150	(1/2:9/2-)	74		
37CL 75						7.200	(7/2-:15/2-)	75		
37CL 76						7.224	(5/2,3/2+)	76	7 FS	LT
37CL 77						7.254	(1/2:9/2-)	77		
37CL 78		7.269	13/2+					78		
37CL 79		7.300	5/2+					79		
37CL 80				7.453	15/2-			80	0.13 PS	4
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37CL 81		7.561	13/2+					81		
37CL 82						7.687	(1/2:9/2-)	82	13 FS	5
37CL 83						7.735	(7/2-:15/2-)	83		

S-alpha= 7.849 ( 0.001)-----										
37CL	84		7.858	15/2+					84	0.85 PS 15
37CL	85					7.924	1/2-		85	
37CL	86							7.987	(7/2-:15/2-)	86
37CL	87					8.071	15/2-		87	
37CL	88		8.177	5/2+					88	
S-p = 8.386 ( 0.000)-----										
37CL	89		8.530	15/2+					89	
37CL	90					8.671	15/2-		90	
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37CL	91		8.702	17/2+					91	
37CL	92					8.715	15/2-		92	
37CL	93		8.812	17/2+					93	0.38 PS 11
37CL	94							8.884	(1/2:7/2-)	94
37CL	95					8.911	19/2-		95	0.68 PS 8
37CL	96							8.929	(1/2:9/2-)	96
37CL	97							8.938	(1/2:9/2-)	97
37CL	98							8.949		98
37CL	99							8.988	(1/2:9/2-)	99
37CL	100							9.027	(3/2,5/2+)	100
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37CL	101							9.035		101
37CL	102							9.046	3/2	102
37CL	103							9.066	3/2	103
37CL	104							9.091		104
37CL	105							9.100	(1/2,3/2,5/2+)	105
37CL	106							9.112	(1/2,3/2,5/2+)	106
37CL	107							9.134	3/2	107
37CL	108							9.138	3/2	108
37CL	109							9.147	(1/2:9/2-)	109
37CL	110		9.169	17/2+						110
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37CL	111							9.171	(1/2:7/2-)	111
37CL	112							9.188	(1/2+,3/2,5/2+)	112
37CL	113							9.194		113
37CL	114							9.203	3/2+,5/2+	114
37CL	115							9.209	3/2+,5/2+	115
37CL	116							9.215	3/2	116
37CL	117							9.221	1/2	117
37CL	118							9.235	(1/2+,3/2,5/2+)	118
37CL	119		9.261	5/2+						119
37CL	120							9.285	1/2	120
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37CL	121							9.294	(3/2-,5/2,7/2+)	121
37CL	122							9.298	(3/2-,5/2+)	122
37CL	123							9.300	3/2	123
37CL	124							9.310	(1/2+,3/2,5/2+)	124
37CL	125							9.327	(1/2+,3/2,5/2+)	125
37CL	126							9.329	(3/2,5/2)	126
37CL	127							9.341	(1/2,3/2)	127

37CL 128				9.355	(3/2-,5/2,7/2+)	128		
37CL 129				9.361		129		
37CL 130				9.373	5/2	130		
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37CL 131				9.378	(1/2:5/2+)	131		
37CL 132				9.385		132		
37CL 133				9.387		133		
37CL 134				9.393	(1/2+,3/2,5/2+)	134		
37CL 135				9.403		135		
37CL 136				9.412		136		
37CL 137			9.429	17/2-		137		
37CL 138				9.435	5/2	138		
37CL 139				9.436	5/2	139		
37CL 140				9.436		140		
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37CL 141				9.448	(1/2+,3/2,5/2+)	141		
37CL 142				9.453	(1/2+,3/2,5/2+)	142		
37CL 143				9.462	5/2	143		
37CL 144				9.474	(1/2,3/2,5/2+)	144		
37CL 145				9.476	3/2	145		
37CL 146				9.495	(3/2,5/2+)	146		
37CL 147	9.500	5/2+				147		
37CL 148				9.501	(3/2-,5/2,7/2+)	148		
37CL 149				9.509		149		
37CL 150				9.518	(1/2,3/2,5/2+)	150		
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37CL 151				9.522		151		
37CL 152				9.547	(5/2,7/2+)	152	0.41 EV	7
37CL 153				9.548		153		
37CL 154				9.549		154		
37CL 155				9.563		155		
37CL 156				9.568		156		
37CL 157				9.572	1/2	157		
37CL 158				9.582		158		
37CL 159				9.588		159		
37CL 160				9.592		160		
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37CL 161				9.613		161		
37CL 162				9.614		162		
37CL 163				9.616		163		
37CL 164				9.620		164		
37CL 165				9.622		165		
37CL 166				9.634		166		
37CL 167				9.642		167		
37CL 168				9.643		168		
37CL 169				9.647		169		
37CL 170				9.658		170		
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37CL 171				9.659		171		
37CL 172				9.671		172		

37CL 173				9.671		173
37CL 174				9.698		174
37CL 175				9.700		175
37CL 176				9.707		176
37CL 177				9.712		177
37CL 178				9.713		178
37CL 179				9.719		179
37CL 180				9.722		180
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37CL 181				9.726		181
37CL 182				9.728		182
37CL 183				9.735		183
37CL 184				9.744		184
37CL 185				9.751		185
37CL 186				9.758		186
37CL 187				9.764		187
37CL 188				9.769	7/2	188
37CL 189				9.772		189
37CL 190				9.776		190
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37CL 191				9.778		191
37CL 192				9.781		192
37CL 193				9.784		193
37CL 194	9.795	19/2+				194
37CL 195				9.804		195
37CL 196				9.807		196
37CL 197				9.810		197
37CL 198				9.813		198
37CL 199				9.815	(1/2:5/2)	199
37CL 200				9.818		200
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37CL 201				9.822		201
37CL 202				9.828		202
37CL 203				9.833		203
37CL 204				9.838		204
37CL 205				9.841		205
37CL 206				9.846	(3/2,5/2)	206
37CL 207				9.859		207
37CL 208				9.860		208
37CL 209				9.864		209
37CL 210				9.868		210
-----						
37CL 211				9.872		211
37CL 212				9.875		212
37CL 213				9.888		213
37CL 214				9.893		214
37CL 215				9.898		215
37CL 216				9.905		216
37CL 217				9.912		217
37CL 218				9.912		218

37CL 219				9.929	219
37CL 220				9.933	220
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37CL 221				9.941	221
37CL 222				9.945	222
37CL 223				9.949	223
37CL 224				9.954	224
37CL 225				9.960	225
37CL 226				9.974	226
37CL 227				9.984	227
37CL 228				9.986	228
37CL 229				9.987	229
37CL 230				9.992	230
-----					
37CL 231				9.996	231

S-p = 8.386 ( 0.000)-----  
 S-n = 10.311 ( 0.000)-----  
 S-2p = 21.482 ( 0.002)-----  
 S-2n = 18.891 ( 0.000)-----  
 S-alpha= 7.849 ( 0.001)-----

S+p = -10.242 ( 0.000)  
 S+n = -6.108 ( 0.000)  
 S+2p = -16.624 ( 0.000)  
 S+2n = -14.181 ( 0.002)  
 S+alpha = -6.223 ( 0.000)

gap p = -1.856 ( 0.000)  
 gap n = 4.203 ( 0.000)  
 gap 2p = 4.858 ( 0.002)  
 gap 2n = 4.709 ( 0.002)  
 gap alpha = 1.626 ( 0.001)