

$^{36}\text{Cl}$        $Z = 17$        $N = 19$       adopted link      ENSDF link

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

BE = 306.790 ( 0.000) MeV  
 Qbeta- = 0.710 ( 0.000) MeV  
 Qbeta+ = 1.142 ( 0.000) MeV

	Energy T	J+	J-	J-other	T1/2
36CL 1	0.000	2+			1 3.013E+5 Y15
36CL 2	0.788	3+			2 14.7 PS 10
36CL 3	1.165	1+			3 6.9 PS 4
36CL 4	1.601	1+			4 0.64 PS 4
36CL 5			1.951 2-		5 1.87 PS 21
36CL 6	1.959	2+			6 43.6 FS 14
36CL 7			2.468 3-		7 0.97 PS 10
36CL 8	2.492	2+			8 40 FS 9
36CL 9			2.518 5-		9 1.61 NS 8
36CL 10				2.676 1+, (2+)	10 21 FS 3
36CL 11			2.811 4-		11 2.36 PS 21
36CL 12				2.864 (3)+	12 14.6 FS 7
36CL 13				2.896 (2,3)-	13 596 FS 55
36CL 14				2.995 (1,2,3)-	14 62 FS 8
36CL 15				3.101 (4)-	15 149 FS +49-28
36CL 16	3.120	0+			16
36CL 17				3.207 (0:3)-	17 97 FS 14
36CL 18				3.332 (2)-	18 73 FS 7
36CL 19				3.470 1+, (2)+	19 24 FS LT
36CL 20				3.566 +	20
36CL 21				3.600 (3)-	21 40.9 FS 21
36CL 22				3.635 (1)-	22 21 FS 10
36CL 23				3.660 (1-,2)	23 55 FS LT
36CL 24				3.661	24
36CL 25			3.723 4-		25 49 FS 10
36CL 26				3.772 -	26
36CL 27				3.826	27
36CL 28				3.941 (1+,2,3+,4+)	28
36CL 29				3.963 (2)-	29 21 FS LT
36CL 30				3.992 (1,2,3)-	30 21 FS 7
36CL 31				4.032 (0,1,2)-	31
36CL 32				4.061 (1,2,3)-	32
36CL 33				4.139 (2)-	33
36CL 34				4.206 (0:3)+	34
36CL 35				4.262	35
36CL 36			4.295 6-		36 5.2 PS 48

36CL 37				4.300	(0)+	37
36CL 38				4.316	(1,2)-	38
36CL 39				4.410	(1+,2,3+)	39
36CL 40				4.497	(2)-	40
-----						
36CL 41				4.525	(-)	41
36CL 42				4.551	(0:3)+	42
36CL 43		4.598	3-			43
36CL 44				4.724	-	44
36CL 45				4.738		45
36CL 46				4.754	(1,2)-	46
36CL 47		4.758	3-			47
36CL 48				4.824		48
36CL 49				4.830	(2-,3-)	49
36CL 50				4.847	-	50
-----						
36CL 51				4.877		51
36CL 52				4.884	(1,2,3)+	52
36CL 53				4.916		53
36CL 54				4.957	-	54
36CL 55				4.997	(3)+	55
36CL 56				4.998	(3)-	56
36CL 57				5.018		57
36CL 58				5.079	(1,2,3)-	58
36CL 59				5.151	(1,2)-	59
36CL 60				5.205	(2)-	60
-----						
36CL 61				5.247	(1+,2+,3+)	61
36CL 62				5.263	(1,2)-	62
36CL 63				5.308	-	63
36CL 64		5.314	7+			64 19.7 PS 15
36CL 65				5.329	(2-,3+)	65
36CL 66				5.370		66
36CL 67				5.464	(2)-	67
36CL 68				5.474	(3)	68
36CL 69				5.518	(2)-	69
36CL 70				5.545		70
-----						
36CL 71				5.564	(2-,3-)	71
36CL 72				5.578	(1,2)-	72
36CL 73				5.578	(2-)	73
36CL 74				5.604	(2,3+)	74
36CL 75				5.604		75
36CL 76				5.605	+	76
36CL 77				5.619	-	77
36CL 78				5.660		78
36CL 79				5.694	-	79
36CL 80				5.703	(1,2,3)-	80
-----						
36CL 81				5.734	(2)-	81

36CL 82			5.766	-	82
36CL 83			5.778	(2-,3)	83
36CL 84			5.779	(2,3,4)	84
36CL 85			5.780	(8)	85
36CL 86			5.832	-	86
36CL 87			5.867		87
36CL 88			5.898	-	88
36CL 89			5.912		89
36CL 90			5.948	-	90
-----					
36CL 91			5.957	(0:4)+	91
36CL 92			5.959	(1+,2,3+)	92
36CL 93			5.986	(-)	93
36CL 94			6.027		94
36CL 95			6.042	(2-,3-)	95
36CL 96			6.051	-	96
36CL 97			6.085	-	97
36CL 98			6.090	(1+,2)	98
36CL 99			6.096	+	99
36CL 100			6.147	+	100
-----					
36CL 101			6.154	-	101
36CL 102			6.185	+	102
36CL 103			6.236	-	103
36CL 104			6.254	(1,2)-	104
36CL 105			6.268	(2-,3+)	105
36CL 106			6.340	(1,2,3)-	106
36CL 107			6.344	(1-,2,3-)	107
36CL 108			6.355	(2,3)+	108
36CL 109			6.379	(4)+	109
36CL 110			6.423	(2,3)-	110
-----					
36CL 111			6.441	-	111
36CL 112			6.469		112
36CL 113			6.488	(1,2,3)-	113
36CL 114			6.488	(1+,2,3,4-)	114
36CL 115			6.505	-	115
36CL 116			6.528		116
36CL 117			6.538	(2,3+)	117
36CL 118			6.545	(1,2,3)+	118
36CL 119			6.577	-	119
36CL 120			6.595	(-)	120
-----					
36CL 121			6.604	(2)	121
36CL 122			6.618	+	122
36CL 123			6.643	(1-,2+)	123
36CL 124			6.673	-	124
36CL 125			6.750	+	125
36CL 126			6.771		126
36CL 127			6.773	+	127

36CL 128				6.774	+	128
36CL 129				6.826	+	129
36CL 130				6.836		130
-----						
36CL 131				6.894	+	131
36CL 132				6.950		132
36CL 133				6.953	(1,2,3)	133
36CL 134				6.997	-	134
36CL 135				7.083	(2)	135
36CL 136				7.085	+	136
36CL 137				7.165		137
36CL 138				7.339		138
36CL 139				7.512	+	139
36CL 140				7.559	(1,2,3)+	140
-----						
36CL 141				7.565	(0+,1,2,3+)	141
-----						
S-alpha=	7.642	(	0.000)	-----		
36CL 142				7.663	+	142
36CL 143				7.755	(-)	143
36CL 144				7.870	+	144
-----						
S-p =	7.965	(	0.000)	-----		
36CL 145				8.184	(+)	145
-----						
S-n =	8.580	(	0.000)	-----		
36CL 146	8.580	2+				146
36CL 147			8.580	2-		147
36CL 148			8.584	1-		148
36CL 149				8.585	(1-)	149
36CL 150	8.594	2+				150
-----						
36CL 151				8.596	(3-)	151
36CL 152			8.596	3-		152
36CL 153				8.602	(0-)	153
36CL 154	8.606	2+				154
36CL 155				8.606	(2-)	155
36CL 156				8.616	(1-)	156
36CL 157				8.619	(3-)	157
36CL 158				8.623	(1-)	158
36CL 159				8.630	(3-)	159
36CL 160				8.631	(2-)	160
-----						
36CL 161	8.633	1+				161
36CL 162				8.636	(2-)	162
36CL 163			8.641	1-		163
36CL 164	8.646	1+				164
36CL 165				8.653	(2+)	165
36CL 166				8.668	(2-)	166
36CL 167				8.668	(2-)	167
36CL 168				8.672	(3-)	168
36CL 169				8.674	(0-)	169
36CL 170				8.676	(3-)	170

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36CL 171			8.680	1-		171
36CL 172				8.689	(3-)	172
36CL 173				8.690	(2-)	173
36CL 174				8.690	(2-)	174
36CL 175				8.692	(1+)	175
36CL 176				8.707	(2+)	176
36CL 177				8.710	(1-)	177
36CL 178				8.711	1(-)	178
36CL 179				8.716	(3-)	179
36CL 180				8.717	(2-)	180
-----						
36CL 181				8.717	(3-)	181
36CL 182				8.719	(2-)	182
36CL 183				8.725	(2-)	183
36CL 184				8.728	(3-)	184
36CL 185				8.738	(1-)	185
36CL 186				8.741	(1-)	186
36CL 187		8.757	1+			187
36CL 188				8.758	(3-)	188
36CL 189				8.760	(3-)	189
36CL 190				8.763	3(-)	190
-----						
36CL 191				8.765	(3-)	191
36CL 192				8.767	(2-)	192
36CL 193				8.767	(3-)	193
36CL 194				8.773	(3-)	194
36CL 195				8.775	(2-)	195
36CL 196				8.780	(2-)	196
36CL 197				8.781	(2-)	197
36CL 198				8.785		198
36CL 199				8.788	(2-)	199
36CL 200		8.789	2+			200
-----						
36CL 201				8.789	(2-)	201
36CL 202				8.791	2(-)	202
36CL 203				8.794	(1-)	203
36CL 204				8.795	(2-)	204
36CL 205				8.798	1(-)	205
36CL 206				8.799	(1-)	206
36CL 207				8.802	(1-)	207
36CL 208				8.803	(0-)	208
36CL 209				8.813	(1+)	209
36CL 210		8.816	2+			210
-----						
36CL 211				8.816	(0-)	211
36CL 212				8.818	(0-)	212
36CL 213				8.819	(2-)	213
36CL 214				8.823	2(-)	214
36CL 215				8.834	1(-)	215

36CL 216				8.851	1(-)	216
36CL 217				8.856	(2-)	217
36CL 218				8.856	(1-)	218
36CL 219				8.856	(2+)	219
36CL 220				8.857	(2-)	220
-----						
36CL 221				8.859	(2-)	221
36CL 222				8.862	(2-)	222
36CL 223				8.865	(3-)	223
36CL 224				8.866	(2-)	224
36CL 225				8.873	(2-)	225
36CL 226				8.874		226
36CL 227			8.875 2-			227
36CL 228				8.877	(1-)	228
36CL 229				8.879	1(-)	229
36CL 230	8.885 2+					230
-----						
36CL 231				8.902	(2+)	231
36CL 232				8.906	(1+)	232
36CL 233				8.907	(3-)	233
36CL 234	8.909 2+					234
36CL 235			8.911 1-			235
36CL 236				8.912	(0-)	236
36CL 237				8.916	(2-)	237
36CL 238				8.924	(2-)	238
36CL 239				8.942	1(-)	239
36CL 240				8.949	(2)+	240
-----						
36CL 241				8.950		241
36CL 242				8.951	(1-)	242
36CL 243				8.953	(2-)	243
36CL 244	8.955 2+					244
36CL 245				8.957	(1-)	245
36CL 246				8.968	(1)+	246
36CL 247				8.970	(1-)	247
36CL 248				8.973	(1-)	248
36CL 249				8.976	2(-)	249
36CL 250				8.984	(1+)	250
-----						
36CL 251				8.990	(1-)	251
36CL 252				9.006	2(-)	252
36CL 253				9.012	(2-)	253
36CL 254				9.018	(1+)	254
36CL 255				9.019	(2-)	255
36CL 256				9.020	(1-)	256
36CL 257				9.025	(2-)	257
36CL 258				9.026	(2+)	258
36CL 259				9.032	(1-)	259
36CL 260				9.032	2(-)	260
-----						

36CL 261				9.036	(2-)	261
36CL 262				9.042	3(-)	262
36CL 263				9.044	(2-)	263
36CL 264				9.048	(0-)	264
36CL 265				9.050	(1-)	265
36CL 266				9.052	(2-)	266
36CL 267				9.055	(2+)	267
36CL 268				9.066	(1+)	268
36CL 269				9.071	(0-)	269
36CL 270				9.075	(3-)	270
-----						
36CL 271	9.080	2+				271
36CL 272				9.093	(2)+	272
36CL 273				9.095	(3-)	273
36CL 274				9.100	(3-)	274
36CL 275				9.107	(1+)	275
36CL 276				9.108	(2-)	276
36CL 277				9.112	(0-)	277
36CL 278				9.117	(1-)	278
36CL 279				9.123	(2)+	279
36CL 280				9.123	(1-)	280
-----						
36CL 281				9.129	(2-)	281
36CL 282				9.138	(2-)	282
36CL 283				9.145	(1-)	283
36CL 284				9.154	(2-)	284
36CL 285				9.154	(2)+	285
36CL 286				9.155	(1-)	286
36CL 287				9.164	(1-)	287
36CL 288				9.171	(3-)	288
36CL 289				9.177	(1-)	289
36CL 290				9.181	(2-)	290
-----						
36CL 291				9.184	(2+)	291
36CL 292				9.192	(1-)	292
36CL 293	9.193	2+				293
36CL 294				9.195	(2-)	294
36CL 295	9.203	2+				295
36CL 296				9.205	(2-)	296
36CL 297				9.216	(1+)	297
36CL 298				9.219	(2+)	298
36CL 299				9.221	(1-)	299
36CL 300				9.226	(1+)	300
-----						
36CL 301				9.227	(3-)	301
36CL 302				9.233	(1+)	302
36CL 303				9.235	(3-)	303
36CL 304				9.239	(1+)	304
36CL 305				9.242	(2)+	305
36CL 306				9.242	(3-)	306

36CL 307			9.246	(3-)	307
36CL 308			9.251	(2)+	308
36CL 309			9.255	(1)+	309
36CL 310			9.261	(3-)	310
-----					
36CL 311			9.264	(2-)	311
36CL 312			9.272	2(-)	312
36CL 313			9.278	(1-)	313
36CL 314			9.282	(1-)	314
36CL 315			9.285	(1+)	315
36CL 316			9.289	(2-)	316
36CL 317			9.292	(1-)	317
36CL 318			9.294	(2-)	318
36CL 319			9.299	2(-)	319
36CL 320			9.307	(1-)	320
-----					
36CL 321			9.313	(1)+	321
36CL 322			9.316	3(-)	322
36CL 323			9.320	3(-)	323
36CL 324			9.324	(1-)	324
36CL 325			9.328	(2-)	325
36CL 326			9.333	(3-)	326
36CL 327			9.338	(2)+	327
36CL 328			9.339	(1+)	328
36CL 329			9.350	(1-)	329
36CL 330			9.356	(2-)	330
-----					
36CL 331			9.359	(2-)	331
36CL 332			9.364	(3-)	332
36CL 333			9.367	(1-)	333
36CL 334	9.382	2+			334
36CL 335			9.384	(2-)	335
36CL 336			9.388	(1+)	336
36CL 337			9.389	(2-)	337
36CL 338			9.392	(2-)	338
36CL 339			9.395	(3-)	339
36CL 340			9.401	(1-)	340
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36CL 341			9.404	(2-)	341
36CL 342			9.408	(2-)	342
36CL 343	9.417	2+			343
36CL 344			9.418	(3-)	344
36CL 345			9.427	(1-)	345
36CL 346			9.432	(2-)	346
36CL 347			9.438	(1)+	347
36CL 348			9.442	(3-)	348
36CL 349			9.450	(2-)	349
36CL 350			9.460	(3-)	350
-----					
36CL 351			9.465	(3-)	351



36CL 352				9.470	(2-)	352
36CL 353				9.476	(2-)	353
36CL 354				9.487	(2-)	354
36CL 355				9.490	(1-)	355
36CL 356				9.497	(1-)	356
36CL 357				9.499	(2-)	357
36CL 358				9.504	(3-)	358
36CL 359				9.506	(2-)	359
36CL 360				9.527	(1-)	360
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36CL 361				9.533	(2-)	361
36CL 362				9.537	(1-)	362
36CL 363				9.544	(2-)	363
36CL 364				9.552	(2-)	364
36CL 365				9.558	(2-)	365
36CL 366				9.562	(3-)	366
36CL 367				9.568	(2-)	367
36CL 368				9.580	(2-)	368
36CL 369				9.585	(3)-	369
36CL 370				9.601	(2-)	370
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36CL 371		9.604	2+			371
36CL 372				9.606	(2-)	372
36CL 373				9.612	(3-)	373
36CL 374				9.621	(3-)	374
36CL 375				9.624	(2-)	375
36CL 376				9.630	(2-)	376
36CL 377				9.635	(3-)	377
36CL 378				9.638	(2-)	378
36CL 379				9.641	(1-)	379
36CL 380				9.653	(3-)	380
-----						
36CL 381				9.658	(1+)	381
36CL 382				9.664	(2-)	382
36CL 383				9.665	(2-)	383
36CL 384				9.669	(3-)	384
36CL 385				9.675	(3-)	385
36CL 386				9.680	(2-)	386
36CL 387				9.686	(2+)	387
36CL 388				9.687	(1-)	388
36CL 389				9.693	(3-)	389
36CL 390				9.703	(3-)	390
-----						
36CL 391				9.712	(2-)	391
36CL 392				9.719	(2-)	392
36CL 393				9.724	(1-)	393
36CL 394				9.736	(3-)	394
36CL 395				9.745	(2-)	395
36CL 396				9.752	(1+)	396
36CL 397				9.755	(3-)	397

36CL 398				9.764	(2-)	398
36CL 399				9.771	(1-)	399
36CL 400				9.782	(3-)	400
-----						
36CL 401				9.788	(2-)	401
36CL 402				9.802	(2+)	402
36CL 403				9.813	(3-)	403
36CL 404				9.822	(3-)	404
36CL 405				9.828	(2-)	405
36CL 406				9.855	(2-)	406
36CL 407				9.858	(3-)	407
36CL 408				9.879	(2-)	408
36CL 409				9.895	(1-)	409
36CL 410				9.896	(2-)	410
-----						
36CL 411				9.908	(2-)	411
36CL 412				9.932	(3-)	412
36CL 413				9.944	(2-)	413
36CL 414				9.965	(3-)	414
36CL 415				9.974	(2-)	415
36CL 416				9.975	(1-)	416
36CL 417				9.981	(2-)	417

S-p = 7.965 ( 0.000)-----  
S-n = 8.580 ( 0.000)-----  
S-2p = 19.551 ( 0.001)-----  
S-2n = 21.225 ( 0.000)-----  
S-alpha= 7.642 ( 0.000)-----

S+p = -8.715 ( 0.000)  
S+n = -10.311 ( 0.000)  
S+2p = -13.857 ( 0.000)  
S+2n = -16.419 ( 0.000)  
S+alpha = -6.438 ( 0.000)

gap p = -0.750 ( 0.000)  
gap n = -1.731 ( 0.000)  
gap 2p = 5.695 ( 0.001)  
gap 2n = 4.806 ( 0.000)  
gap alpha = 1.204 ( 0.000)