

^{102}Cd $Z = 48$ $N = 54$ adopted link ENSDF link

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

BE = 865.381 (0.002) MeV

Qbeta+ = 2.587 (0.008) MeV

| | Energy T | J+ | J- | J-other | T1/2 |
|-------------------------|----------|----|----|---------|-----------------|
| 102CD 1 | 0.000 | 0+ | | | 1 5.5 M 5 |
| S-alpha= 0.764 (0.005) | | | | | |
| 102CD 2 | 0.777 | 2+ | | | 2 3.5 PS 6 |
| 102CD 3 | 1.638 | 4+ | | | 3 5.6 PS LT |
| 102CD 4 | | | | 1.649 | 4 |
| 102CD 5 | | | | 2.035 | (5+,6+) 5 |
| 102CD 6 | 2.231 | 6+ | | | 6 19.4 PS 14 |
| 102CD 7 | | | | 2.387 | (6+) 7 |
| 102CD 8 | | | | 2.403 | 8 |
| 102CD 9 | | | | 2.483 | 9 |
| 102CD 10 | | | | 2.561 | (6)+ 10 |
| 102CD 11 | | | | 2.590 | 11 |
| 102CD 12 | | | | 2.598 | 12 |
| 102CD 13 | | | | 2.675 | 13 |
| 102CD 14 | | | | 2.677 | (6+) 14 |
| 102CD 15 | | | | 2.719 | (8+) 15 39 NS 3 |
| 102CD 16 | | | | 2.731 | 16 |
| 102CD 17 | | | | 2.828 | 17 |
| 102CD 18 | | | | 2.856 | 18 |
| 102CD 19 | | | | 2.868 | 19 |
| 102CD 20 | | | | 2.874 | 20 |
| 102CD 21 | | | | 2.931 | 21 |
| 102CD 22 | | | | 2.985 | 22 |
| 102CD 23 | | | | 3.030 | 23 |
| 102CD 24 | | | | 3.042 | 24 |
| 102CD 25 | 3.053 | 8+ | | | 25 3.1 PS 7 |
| 102CD 26 | | | | 3.059 | 26 |
| 102CD 27 | | | | 3.073 | 27 |
| 102CD 28 | | | | 3.099 | 28 |
| 102CD 29 | | | | 3.115 | 29 |
| 102CD 30 | | | | 3.129 | 30 |
| 102CD 31 | | | | 3.150 | 31 |
| 102CD 32 | | | | 3.187 | 32 |
| 102CD 33 | | | | 3.194 | 33 |
| 102CD 34 | | | | 3.197 | 34 |
| 102CD 35 | | | | 3.218 | 35 |
| 102CD 36 | | | | 3.229 | 36 |

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|----------|--|--|--|-------|------|----|
| 102CD 37 | | | | 3.263 | | 37 |
| 102CD 38 | | | | 3.268 | | 38 |
| 102CD 39 | | | | 3.271 | | 39 |
| 102CD 40 | | | | 3.277 | | 40 |
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| 102CD 41 | | | | 3.339 | | 41 |
| 102CD 42 | | | | 3.371 | | 42 |
| 102CD 43 | | | | 3.381 | | 43 |
| 102CD 44 | | | | 3.385 | | 44 |
| 102CD 45 | | | | 3.389 | | 45 |
| 102CD 46 | | | | 3.422 | | 46 |
| 102CD 47 | | | | 3.450 | | 47 |
| 102CD 48 | | | | 3.478 | | 48 |
| 102CD 49 | | | | 3.482 | | 49 |
| 102CD 50 | | | | 3.495 | | 50 |
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| 102CD 51 | | | | 3.499 | | 51 |
| 102CD 52 | | | | 3.538 | | 52 |
| 102CD 53 | | | | 3.552 | | 53 |
| 102CD 54 | | | | 3.563 | | 54 |
| 102CD 55 | | | | 3.573 | | 55 |
| 102CD 56 | | | | 3.577 | | 56 |
| 102CD 57 | | | | 3.578 | (8+) | 57 |
| 102CD 58 | | | | 3.583 | | 58 |
| 102CD 59 | | | | 3.590 | | 59 |
| 102CD 60 | | | | 3.595 | | 60 |
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| 102CD 61 | | | | 3.598 | | 61 |
| 102CD 62 | | | | 3.605 | | 62 |
| 102CD 63 | | | | 3.609 | | 63 |
| 102CD 64 | | | | 3.613 | | 64 |
| 102CD 65 | | | | 3.637 | | 65 |
| 102CD 66 | | | | 3.649 | | 66 |
| 102CD 67 | | | | 3.689 | | 67 |
| 102CD 68 | | | | 3.703 | | 68 |
| 102CD 69 | | | | 3.724 | | 69 |
| 102CD 70 | | | | 3.736 | | 70 |
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| 102CD 71 | | | | 3.741 | | 71 |
| 102CD 72 | | | | 3.750 | | 72 |
| 102CD 73 | | | | 3.753 | | 73 |
| 102CD 74 | | | | 3.780 | | 74 |
| 102CD 75 | | | | 3.806 | | 75 |
| 102CD 76 | | | | 3.810 | (9+) | 76 |
| 102CD 77 | | | | 3.829 | | 77 |
| 102CD 78 | | | | 3.847 | | 78 |
| 102CD 79 | | | | 3.853 | | 79 |
| 102CD 80 | | | | 3.864 | | 80 |
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| 102CD 81 | | | | 3.874 | | 81 |

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|-----------|--|-------|-----|-------|-------|----------------|
| 102CD 82 | | | | 3.877 | | 82 |
| 102CD 83 | | | | 3.894 | | 83 |
| 102CD 84 | | | | 3.907 | | 84 |
| 102CD 85 | | 3.908 | 10+ | | | 85 1.2 PS 4 |
| 102CD 86 | | | | 3.911 | | 86 |
| 102CD 87 | | | | 3.920 | | 87 |
| 102CD 88 | | | | 3.938 | | 88 |
| 102CD 89 | | | | 3.952 | | 89 |
| 102CD 90 | | | | 3.962 | | 90 |
| ----- | | | | | | |
| 102CD 91 | | | | 3.976 | | 91 |
| 102CD 92 | | | | 3.990 | | 92 |
| 102CD 93 | | | | 3.999 | | 93 |
| 102CD 94 | | | | 4.008 | (10+) | 94 0.62 PS 14 |
| 102CD 95 | | | | 4.015 | | 95 |
| 102CD 96 | | | | 4.022 | | 96 |
| 102CD 97 | | | | 4.028 | | 97 |
| 102CD 98 | | | | 4.035 | | 98 |
| 102CD 99 | | | | 4.036 | | 99 |
| 102CD 100 | | | | 4.040 | | 100 |
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| 102CD 101 | | | | 4.049 | | 101 |
| 102CD 102 | | | | 4.072 | | 102 |
| 102CD 103 | | | | 4.082 | | 103 |
| 102CD 104 | | | | 4.086 | | 104 |
| 102CD 105 | | | | 4.088 | | 105 |
| 102CD 106 | | | | 4.104 | | 106 |
| 102CD 107 | | | | 4.121 | | 107 |
| 102CD 108 | | | | 4.131 | | 108 |
| 102CD 109 | | | | 4.142 | | 109 |
| 102CD 110 | | | | 4.147 | | 110 |
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| 102CD 111 | | | | 4.162 | | 111 |
| 102CD 112 | | | | 4.176 | | 112 |
| 102CD 113 | | | | 4.183 | | 113 |
| 102CD 114 | | | | 4.189 | | 114 |
| 102CD 115 | | | | 4.197 | | 115 |
| 102CD 116 | | | | 4.206 | | 116 |
| 102CD 117 | | | | 4.224 | | 117 |
| 102CD 118 | | | | 4.228 | | 118 |
| 102CD 119 | | | | 4.242 | | 119 |
| 102CD 120 | | | | 4.253 | | 120 |
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| 102CD 121 | | | | 4.266 | | 121 |
| 102CD 122 | | | | 4.277 | (11)+ | 122 1.04 PS 14 |
| 102CD 123 | | | | 4.283 | | 123 |
| 102CD 124 | | | | 4.312 | | 124 |
| 102CD 125 | | | | 4.333 | | 125 |
| 102CD 126 | | | | 4.335 | | 126 |
| 102CD 127 | | | | 4.340 | | 127 |

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| 102CD 128 | | | 4.350 | (9-) | 128 |
| 102CD 129 | | | 4.358 | | 129 |
| 102CD 130 | | | 4.361 | | 130 |
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| 102CD 131 | | | 4.368 | | 131 |
| 102CD 132 | | | 4.373 | | 132 |
| 102CD 133 | | | 4.377 | | 133 |
| 102CD 134 | | | 4.386 | | 134 |
| 102CD 135 | | | 4.416 | | 135 |
| 102CD 136 | | | 4.424 | | 136 |
| 102CD 137 | | | 4.428 | | 137 |
| 102CD 138 | | | 4.441 | | 138 |
| 102CD 139 | | | 4.446 | | 139 |
| 102CD 140 | | | 4.454 | | 140 |
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| 102CD 141 | | | 4.460 | | 141 |
| 102CD 142 | | | 4.479 | | 142 |
| 102CD 143 | | | 4.497 | | 143 |
| 102CD 144 | | | 4.513 | | 144 |
| 102CD 145 | | | 4.518 | (12)+ | 145 1.73 PS 14 |
| 102CD 146 | | | 4.525 | | 146 |
| 102CD 147 | | | 4.529 | | 147 |
| 102CD 148 | | | 4.536 | | 148 |
| 102CD 149 | | | 4.569 | | 149 |
| 102CD 150 | | | 4.582 | | 150 |
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| 102CD 151 | | | 4.601 | | 151 |
| 102CD 152 | | | 4.629 | | 152 |
| 102CD 153 | | | 4.641 | | 153 |
| 102CD 154 | | | 4.657 | | 154 |
| 102CD 155 | | | 4.665 | | 155 |
| 102CD 156 | | | 4.669 | | 156 |
| 102CD 157 | | | 4.673 | | 157 |
| 102CD 158 | | | 4.680 | | 158 |
| 102CD 159 | | | 4.685 | | 159 |
| 102CD 160 | | | 4.690 | | 160 |
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| 102CD 161 | | | 4.709 | | 161 |
| 102CD 162 | | | 4.717 | | 162 |
| 102CD 163 | | | 4.721 | | 163 |
| 102CD 164 | | | 4.736 | | 164 |
| 102CD 165 | | | 4.737 | (13) | 165 |
| 102CD 166 | | | 4.740 | | 166 |
| 102CD 167 | | | 4.754 | | 167 |
| 102CD 168 | | | 4.777 | | 168 |
| 102CD 169 | | | 4.798 | | 169 |
| 102CD 170 | | | 4.821 | | 170 |
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| 102CD 171 | | | 4.824 | | 171 |
| 102CD 172 | | | 4.828 | | 172 |

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|-----------|--|--|-------|-------|---------------|
| 102CD 173 | | | 4.845 | | 173 |
| 102CD 174 | | | 4.862 | | 174 |
| 102CD 175 | | | 4.872 | | 175 |
| 102CD 176 | | | 4.886 | | 176 |
| 102CD 177 | | | 4.907 | | 177 |
| 102CD 178 | | | 4.910 | | 178 |
| 102CD 179 | | | 4.916 | | 179 |
| 102CD 180 | | | 4.925 | | 180 |
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| 102CD 181 | | | 4.930 | | 181 |
| 102CD 182 | | | 4.961 | (12) | 182 |
| 102CD 183 | | | 4.982 | | 183 |
| 102CD 184 | | | 4.989 | | 184 |
| 102CD 185 | | | 4.996 | | 185 |
| 102CD 186 | | | 5.004 | | 186 |
| 102CD 187 | | | 5.022 | | 187 |
| 102CD 188 | | | 5.041 | | 188 |
| 102CD 189 | | | 5.055 | | 189 |
| 102CD 190 | | | 5.065 | | 190 |
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| 102CD 191 | | | 5.068 | | 191 |
| 102CD 192 | | | 5.072 | | 192 |
| 102CD 193 | | | 5.105 | | 193 |
| 102CD 194 | | | 5.107 | | 194 |
| 102CD 195 | | | 5.128 | | 195 |
| 102CD 196 | | | 5.130 | | 196 |
| 102CD 197 | | | 5.141 | | 197 |
| 102CD 198 | | | 5.150 | | 198 |
| 102CD 199 | | | 5.176 | | 199 |
| 102CD 200 | | | 5.182 | | 200 |
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| 102CD 201 | | | 5.191 | | 201 |
| 102CD 202 | | | 5.194 | | 202 |
| 102CD 203 | | | 5.197 | (11-) | 203 |
| 102CD 204 | | | 5.238 | | 204 |
| 102CD 205 | | | 5.246 | | 205 |
| 102CD 206 | | | 5.274 | | 206 |
| 102CD 207 | | | 5.298 | | 207 |
| 102CD 208 | | | 5.309 | (13)+ | 208 0.28 PS 7 |
| 102CD 209 | | | 5.332 | | 209 |
| 102CD 210 | | | 5.362 | | 210 |
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| 102CD 211 | | | 5.388 | | 211 |
| 102CD 212 | | | 5.397 | | 212 |
| 102CD 213 | | | 5.399 | | 213 |
| 102CD 214 | | | 5.407 | | 214 |
| 102CD 215 | | | 5.421 | | 215 |
| 102CD 216 | | | 5.436 | | 216 |
| 102CD 217 | | | 5.441 | | 217 |
| 102CD 218 | | | 5.462 | | 218 |

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|-----------|---|----------------|-------|-------|----------------|
| 102CD 219 | | | 5.478 | | 219 |
| 102CD 220 | | | 5.489 | | 220 |
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| 102CD 221 | | | 5.507 | | 221 |
| 102CD 222 | | | 5.509 | | 222 |
| 102CD 223 | | | 5.540 | | 223 |
| 102CD 224 | | | 5.570 | | 224 |
| 102CD 225 | | | 5.614 | | 225 |
| S-p | = | 5.614 (0.005) | ----- | | |
| 102CD 226 | | | 5.621 | | 226 |
| 102CD 227 | | | 5.655 | | 227 |
| 102CD 228 | | | 5.671 | | 228 |
| 102CD 229 | | | 5.692 | | 229 |
| 102CD 230 | | | 5.702 | | 230 |
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| 102CD 231 | | | 5.705 | | 231 |
| 102CD 232 | | | 5.723 | | 232 |
| 102CD 233 | | | 5.737 | | 233 |
| 102CD 234 | | | 5.753 | | 234 |
| 102CD 235 | | | 5.759 | | 235 |
| 102CD 236 | | | 5.769 | 14 | 236 |
| 102CD 237 | | | 5.770 | | 237 |
| 102CD 238 | | | 5.780 | | 238 |
| 102CD 239 | | | 5.787 | | 239 |
| 102CD 240 | | | 5.797 | | 240 |
| ----- | | | | | |
| 102CD 241 | | | 5.812 | | 241 |
| 102CD 242 | | | 5.839 | | 242 |
| 102CD 243 | | | 5.849 | | 243 |
| 102CD 244 | | | 5.858 | | 244 |
| 102CD 245 | | | 5.862 | | 245 |
| 102CD 246 | | | 5.866 | | 246 |
| 102CD 247 | | | 5.880 | | 247 |
| 102CD 248 | | | 5.888 | | 248 |
| 102CD 249 | | | 5.895 | | 249 |
| 102CD 250 | | | 5.902 | | 250 |
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| 102CD 251 | | | 5.909 | | 251 |
| 102CD 252 | | | 5.919 | | 252 |
| 102CD 253 | | | 5.926 | (14)+ | 253 1.52 PS 14 |
| 102CD 254 | | | 5.933 | | 254 |
| 102CD 255 | | | 5.935 | | 255 |
| 102CD 256 | | | 5.945 | | 256 |
| 102CD 257 | | | 5.948 | | 257 |
| 102CD 258 | | | 6.019 | | 258 |
| 102CD 259 | | | 6.058 | | 259 |
| 102CD 260 | | | 6.066 | | 260 |
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| 102CD 261 | | | 6.070 | (12) | 261 |
| 102CD 262 | | | 6.081 | (13-) | 262 |

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|-----------|---|-------|---------|-------|-----|---------|----|
| 102CD 263 | | | 6.083 | | 263 | | |
| 102CD 264 | | | 6.111 | | 264 | | |
| 102CD 265 | | | 6.146 | | 265 | | |
| 102CD 266 | | | 6.150 | | 266 | | |
| 102CD 267 | | | 6.169 | | 267 | | |
| 102CD 268 | | | 6.196 | | 268 | | |
| 102CD 269 | | | 6.226 | | 269 | | |
| 102CD 270 | | | 6.244 | | 270 | | |
| ----- | | | | | | | |
| 102CD 271 | | | 6.256 | | 271 | | |
| 102CD 272 | | | 6.287 | (15) | 272 | | |
| 102CD 273 | | | 6.292 | | 273 | | |
| 102CD 274 | | | 6.320 | | 274 | | |
| 102CD 275 | | | 6.324 | (13-) | 275 | | |
| 102CD 276 | | | 6.344 | | 276 | | |
| 102CD 277 | | | 6.352 | | 277 | | |
| 102CD 278 | | | 6.419 | | 278 | | |
| 102CD 279 | | | 6.448 | | 279 | | |
| 102CD 280 | | | 6.505 | | 280 | | |
| ----- | | | | | | | |
| 102CD 281 | | | 6.526 | | 281 | | |
| 102CD 282 | | | 6.555 | | 282 | | |
| 102CD 283 | | | 6.563 | (14-) | 283 | | |
| 102CD 284 | | | 6.612 | | 284 | | |
| 102CD 285 | | | 6.651 | | 285 | | |
| 102CD 286 | | | 6.667 | | 286 | | |
| 102CD 287 | | | 6.689 | | 287 | | |
| 102CD 288 | | | 6.712 | (16) | 288 | | |
| 102CD 289 | | | 6.746 | (14-) | 289 | 5.5 PS | GT |
| 102CD 290 | | | 6.747 | | 290 | | |
| ----- | | | | | | | |
| 102CD 291 | | | 6.773 | (15) | 291 | | |
| 102CD 292 | | | 6.800 | | 292 | | |
| 102CD 293 | | | 6.827 | (14) | 293 | | |
| 102CD 294 | | | 6.964 | | 294 | | |
| 102CD 295 | | | 7.007 | | 295 | | |
| 102CD 296 | | | 7.011 | (15-) | 296 | | |
| 102CD 297 | | | 7.124 | | 297 | | |
| 102CD 298 | | | 7.262 | (15) | 298 | | |
| 102CD 299 | | | 7.332 | (16) | 299 | | |
| 102CD 300 | | | 7.361 | | 300 | | |
| ----- | | | | | | | |
| 102CD 301 | | | 7.789 | (16) | 301 | 5.5 PS | GT |
| 102CD 302 | | | 7.944 | (16) | 302 | | |
| 102CD 303 | | | 8.100 | (17-) | 303 | 1.25 PS | GT |
| 102CD 304 | | | 8.367 | (17) | 304 | | |
| 102CD 305 | | | 8.508 | (17) | 305 | | |
| 102CD 306 | | | 8.845 | (18) | 306 | 1.80 PS | 14 |
| 102CD 307 | | | 8.943 | (18-) | 307 | 1.25 PS | GT |
| ----- | | | | | | | |
| S-2p | = | 9.025 | (0.018) | | | | |

S-p = 5.614 (0.005)-----
S-n = 11.895 (0.002)-----
S-2p = 9.025 (0.018)-----
S-2n = 21.608 (0.002)-----
S-alpha= 0.764 (0.005)-----

S+p = -2.262 (0.009)
S+n = -9.063 (0.002)
S+2p = -6.545 (0.006)
S+2n = -20.451 (0.002)
S+alpha = -0.119 (0.005)

gap p = 3.352 (0.010)
gap n = 2.831 (0.003)
gap 2p = 2.479 (0.019)
gap 2n = 1.156 (0.003)
gap alpha = 0.645 (0.007)