

^{111}In $Z = 49$ $N = 62$ adopted link ENSDF link

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

BE = 945.973 (0.003) MeV

Qbeta+ = 0.860 (0.003) MeV

| | Energy T | J+ | J- | J-other | T1/2 |
|----------|----------|-------|------------|----------------------|----------------|
| 111IN 1 | 0.000 | 9/2+ | | | 1 2.8047 D 4 |
| 111IN 2 | | | 0.537 1/2- | | 2 7.7 M 2 |
| 111IN 3 | | | 0.803 3/2- | | 3 |
| 111IN 4 | 1.102 | 5/2+ | | | 4 |
| 111IN 5 | 1.153 | 11/2+ | | | 5 0.31 PS 7 |
| 111IN 6 | 1.188 | 1/2+ | | | 6 0.14 NS 3 |
| 111IN 7 | 1.218 | 5/2+ | | | 7 1.2 PS +7-5 |
| 111IN 8 | | | | 1.280 (5/2)- | 8 0.15 NSLE |
| 111IN 9 | 1.345 | 3/2+ | | | 9 |
| 111IN 10 | | | | 1.351 | 10 |
| 111IN 11 | 1.401 | 13/2+ | | | 11 |
| 111IN 12 | | | | 1.462 | 12 |
| 111IN 13 | 1.500 | 7/2+ | | | 13 0.31 PS 10 |
| 111IN 14 | | | | 1.543 5/2+,7/2,9/2+ | 14 |
| 111IN 15 | 1.610 | 9/2+ | | | 15 |
| 111IN 16 | | | | 1.671 (1/2,3/2,5/2)- | 16 |
| 111IN 17 | | | | 1.753 (9/2+) | 17 0.4 PS +3-1 |
| 111IN 18 | | | | 1.832 | 18 |
| 111IN 19 | | | | 1.846 | 19 |
| 111IN 20 | | | | 1.849 1/2-,3/2- | 20 0.2 NS LT |
| 111IN 21 | | | | 1.867 1/2+,3/2+,5/2+ | 21 |
| 111IN 22 | | | | 1.915 7/2+,9/2+ | 22 |
| 111IN 23 | | | | 1.917 7/2+,9/2+ | 23 |
| 111IN 24 | | | | 1.919 3/2+,5/2+ | 24 |
| 111IN 25 | | | | 1.935 - | 25 |
| 111IN 26 | | | | 1.970 - | 26 |
| 111IN 27 | 1.995 | 15/2+ | | | 27 0.3 PS 1 |
| 111IN 28 | | | | 2.003 5/2+,7/2+,9/2+ | 28 |
| 111IN 29 | 2.032 | 11/2+ | | | 29 0.7 PS 3 |
| 111IN 30 | | | | 2.035 5/2-,7/2- | 30 |
| 111IN 31 | | | | 2.067 (1/2,3/2,5/2-) | 31 |
| 111IN 32 | | | | 2.082 5/2+,7/2- | 32 |
| 111IN 33 | 2.085 | 1/2+ | | | 33 |
| 111IN 34 | | | | 2.090 (5/2) | 34 |
| 111IN 35 | | | | 2.107 7/2+,9/2+ | 35 |
| 111IN 36 | | | | 2.112 | 36 |
| 111IN 37 | | | | 2.142 (1/2+,3/2) | 37 |

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|----------|--|-------|----------|--|-------|-------|-------------|----|-----------------|----|
| 111IN 38 | | | | | | 2.180 | (7/2+,9/2+) | 38 | | |
| 111IN 39 | | | | | | 2.201 | | 39 | | |
| 111IN 40 | | 2.212 | 5/2+ | | | | | 40 | | |
| ----- | | | | | | | | | | |
| 111IN 41 | | 2.228 | 13/2+ | | | | | 41 | 0.28 PS | 7 |
| 111IN 42 | | | | | 2.235 | 13/2- | | 42 | 0.2 PS | 1 |
| 111IN 43 | | | | | | | 2.239 | 43 | | |
| 111IN 44 | | | | | | | 2.247 | 44 | | |
| 111IN 45 | | | | | | | 2.259 | 45 | | |
| 111IN 46 | | | | | | | 2.264 | 46 | | |
| 111IN 47 | | | | | | | 2.272 | 47 | (1/2+,3/2,5/2+) | |
| 111IN 48 | | | | | | | 2.287 | 48 | (5/2+,7/2,9/2+) | |
| 111IN 49 | | | | | | | 2.291 | 49 | 7/2+,9/2+ | |
| 111IN 50 | | | | | | | 2.298 | 50 | 3/2+,5/2+ | |
| ----- | | | | | | | | | | |
| 111IN 51 | | | | | | | 2.311 | 51 | | |
| 111IN 52 | | | | | | | 2.323 | 52 | 7/2+,9/2+ | |
| 111IN 53 | | | | | | | 2.341 | 53 | 3/2+,5/2+ | |
| 111IN 54 | | 2.362 | 9/2+ | | | | | 54 | | |
| 111IN 55 | | | | | | | 2.365 | 55 | (1/2+,3/2,5/2-) | |
| 111IN 56 | | | | | | | 2.373 | 56 | | |
| 111IN 57 | | | | | 2.402 | 15/2- | | 57 | 0.6 PS | 3 |
| ----- | | | | | | | | | | |
| S-alpha= | | 2.410 | (0.004) | | | | | | | |
| 111IN 58 | | | | | | | 2.440 | 58 | 0.38 PS | 10 |
| 111IN 59 | | 2.462 | 17/2+ | | | | | 59 | 0.52 PS | 17 |
| 111IN 60 | | | | | | | 2.480 | 60 | 3/2+,5/2+ | |
| ----- | | | | | | | | | | |
| 111IN 61 | | | | | | | 2.530 | 61 | (5/2+) | |
| 111IN 62 | | | | | | | 2.568 | 62 | | |
| 111IN 63 | | | | | | | 2.581 | 63 | (13/2+) | |
| 111IN 64 | | | | | | | 2.583 | 64 | | |
| 111IN 65 | | | | | | | 2.589 | 65 | 3/2+,5/2+ | |
| 111IN 66 | | | | | | | 2.603 | 66 | | |
| 111IN 67 | | | | | 2.614 | 17/2- | | 67 | | |
| 111IN 68 | | 2.616 | 1/2+ | | | | | 68 | | |
| 111IN 69 | | | | | 2.619 | 19/2- | | 69 | | |
| 111IN 70 | | 2.620 | 1/2+ | | | | | 70 | | |
| ----- | | | | | | | | | | |
| 111IN 71 | | | | | | | 2.647 | 71 | | |
| 111IN 72 | | | | | 2.650 | 15/2- | | 72 | | |
| 111IN 73 | | | | | | | 2.659 | 73 | 3/2+,5/2+ | |
| 111IN 74 | | | | | | | 2.675 | 74 | | |
| 111IN 75 | | | | | | | 2.688 | 75 | | |
| 111IN 76 | | | | | | | 2.697 | 76 | (1/2-,3/2,5/2-) | |
| 111IN 77 | | | | | | | 2.699 | 77 | | |
| 111IN 78 | | 2.708 | 15/2+ | | | | | 78 | 1.1 PS | 4 |
| 111IN 79 | | 2.717 | 21/2+ | | | | | 79 | 13.7 NS | 4 |
| 111IN 80 | | | | | | | 2.724 | 80 | | |
| ----- | | | | | | | | | | |
| 111IN 81 | | | | | 2.743 | 21/2- | | 81 | | |

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|-----------|--|-------|-------|--|-------|-------|-------|------------------|
| 111IN 82 | | 2.749 | 15/2+ | | | | | 82 |
| 111IN 83 | | | | | | | 2.760 | 83 |
| 111IN 84 | | 2.768 | 5/2+ | | | | | 84 1.4 PS GT |
| 111IN 85 | | | | | 2.769 | 17/2- | | 85 |
| 111IN 86 | | 2.772 | 15/2+ | | | | | 86 1.0 PS 3 |
| 111IN 87 | | 2.780 | 19/2+ | | | | | 87 1.0 PS +6-3 |
| 111IN 88 | | | | | | | 2.798 | 88 |
| 111IN 89 | | | | | | | 2.802 | 89 (5/2+,7/2-) |
| 111IN 90 | | | | | | | 2.821 | 90 + |
| ----- | | | | | | | | |
| 111IN 91 | | 2.826 | 17/2+ | | | | | 91 |
| 111IN 92 | | 2.830 | 13/2+ | | | | | 92 |
| 111IN 93 | | | | | | | 2.841 | 93 |
| 111IN 94 | | | | | | | 2.861 | 94 (5/2+,7/2-) |
| 111IN 95 | | 2.886 | 1/2+ | | | | | 95 |
| 111IN 96 | | | | | | | 2.893 | 96 |
| 111IN 97 | | | | | | | 2.905 | 97 (17/2+) |
| 111IN 98 | | 2.919 | 15/2+ | | | | | 98 |
| 111IN 99 | | | | | | | 2.927 | 99 |
| 111IN 100 | | | | | | | 2.935 | 100 |
| ----- | | | | | | | | |
| 111IN 101 | | | | | | | 2.941 | 101 |
| 111IN 102 | | | | | | | 2.968 | 102 |
| 111IN 103 | | | | | 2.980 | 19/2- | | 103 |
| 111IN 104 | | | | | | | 2.998 | 104 |
| 111IN 105 | | 3.015 | 1/2+ | | | | | 105 |
| 111IN 106 | | | | | 3.025 | 23/2- | | 106 1.4 PS GT |
| 111IN 107 | | 3.028 | 1/2+ | | | | | 107 |
| 111IN 108 | | 3.039 | 17/2+ | | | | | 108 |
| 111IN 109 | | | | | | | 3.041 | 109 (5/2+,7/2+) |
| 111IN 110 | | | | | 3.044 | 19/2- | | 110 1.0 PS +10-3 |
| ----- | | | | | | | | |
| 111IN 111 | | | | | | | 3.064 | 111 |
| 111IN 112 | | | | | | | 3.071 | 112 3/2+,5/2+ |
| 111IN 113 | | | | | | | 3.105 | 113 1/2,3/2,5/2+ |
| 111IN 114 | | 3.130 | 3/2+ | | | | | 114 |
| 111IN 115 | | | | | 3.158 | 21/2- | | 115 |
| 111IN 116 | | | | | | | 3.164 | 116 3/2+,5/2+ |
| 111IN 117 | | | | | | | 3.178 | 117 |
| 111IN 118 | | 3.195 | 17/2+ | | | | | 118 |
| 111IN 119 | | | | | | | 3.199 | 119 |
| 111IN 120 | | | | | | | 3.209 | 120 |
| ----- | | | | | | | | |
| 111IN 121 | | | | | | | 3.215 | 121 |
| 111IN 122 | | | | | | | 3.222 | 122 |
| 111IN 123 | | 3.244 | 1/2+ | | | | | 123 |
| 111IN 124 | | 3.254 | 1/2+ | | | | | 124 |
| 111IN 125 | | | | | | | 3.259 | 125 |
| 111IN 126 | | | | | | | 3.266 | 126 |
| 111IN 127 | | | | | | | 3.363 | 127 (21/2-) |

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|-----------|---|-------|----------|-------|-------|-------|---------|---------|--------------------|--|
| 111IN 128 | | | | | | 3.388 | | | 128 | |
| 111IN 129 | | | | | | 3.405 | | | 129 | |
| 111IN 130 | | | | | | 3.426 | (19/2-) | | 130 | |
| ----- | | | | | | | | | | |
| 111IN 131 | | 3.436 | 17/2+ | | | | | | 131 | |
| 111IN 132 | | | | | 3.453 | 23/2- | | | 132 1.0 PS +10-3 | |
| 111IN 133 | | 3.461 | 19/2+ | | | | | | 133 | |
| 111IN 134 | | | | | 3.466 | 25/2- | | | 134 0.52 PS 17 | |
| 111IN 135 | | 3.566 | 19/2+ | | | | | | 135 | |
| 111IN 136 | | | | | | | 3.583 | (23/2-) | 136 | |
| 111IN 137 | | 3.589 | 21/2+ | | | | | | 137 | |
| 111IN 138 | | 3.600 | 19/2+ | | | | | | 138 | |
| 111IN 139 | | 3.708 | 23/2+ | | | | | | 139 | |
| 111IN 140 | | | | | | | 3.865 | (23/2)+ | 140 | |
| ----- | | | | | | | | | | |
| 111IN 141 | | 3.908 | 21/2+ | | | | | | 141 | |
| 111IN 142 | | 3.912 | 25/2+ | | | | | | 142 | |
| 111IN 143 | | 3.971 | 21/2+ | | | | | | 143 | |
| 111IN 144 | | | | | 4.019 | 25/2- | | | 144 | |
| 111IN 145 | | 4.110 | 25/2+ | | | | | | 145 | |
| 111IN 146 | | | | | 4.126 | 25/2- | | | 146 | |
| 111IN 147 | | 4.133 | 21/2+ | | | | | | 147 | |
| 111IN 148 | | | | | 4.205 | 27/2- | | | 148 0.45 PS +17-10 | |
| 111IN 149 | | 4.283 | 27/2+ | | | | | | 149 | |
| 111IN 150 | | 4.310 | 25/2+ | | | | | | 150 | |
| ----- | | | | | | | | | | |
| 111IN 151 | | 4.395 | 23/2+ | | | | | | 151 | |
| 111IN 152 | | | | | 4.473 | 27/2- | | | 152 | |
| 111IN 153 | | | | | | | 4.501 | (23/2+) | 153 | |
| 111IN 154 | | | | | | | 4.745 | (27/2-) | 154 | |
| 111IN 155 | | 4.797 | 29/2+ | | | | | | 155 | |
| 111IN 156 | | 4.821 | 25/2+ | | | | | | 156 | |
| 111IN 157 | | 4.873 | 27/2+ | | | | | | 157 | |
| 111IN 158 | | 4.884 | 27/2+ | | | | | | 158 | |
| 111IN 159 | | | | | 4.918 | 29/2- | | | 159 | |
| 111IN 160 | | 4.932 | 27/2+ | | | | | | 160 | |
| ----- | | | | | | | | | | |
| 111IN 161 | | 4.957 | 29/2+ | | | | | | 161 | |
| 111IN 162 | | | | | | | 4.973 | (23/2+) | 162 | |
| 111IN 163 | | | | | 5.085 | 29/2- | | | 163 | |
| 111IN 164 | | 5.167 | 29/2+ | | | | | | 164 | |
| 111IN 165 | | 5.332 | 31/2+ | | | | | | 165 | |
| ----- | | | | | | | | | | |
| S-p | = | 5.333 | (0.003) | ----- | | | | | | |
| 111IN 166 | | 5.399 | 31/2+ | | | | | | 166 | |
| 111IN 167 | | | | | 5.402 | 31/2- | | | 167 | |
| 111IN 168 | | 5.510 | 31/2+ | | | | | | 168 | |
| 111IN 169 | | 5.586 | 29/2+ | | | | | | 169 | |
| 111IN 170 | | | | | 5.670 | 33/2- | | | 170 | |
| ----- | | | | | | | | | | |
| 111IN 171 | | 5.678 | 33/2+ | | | | | | 171 | |

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|-----------|--|-------|-------|-------|-------|-------|---------|-----|
| 111IN 172 | | | | | | 5.691 | (31/2-) | 172 |
| 111IN 173 | | | | | | 5.784 | (27/2+) | 173 |
| 111IN 174 | | | | | | 5.878 | (33/2+) | 174 |
| 111IN 175 | | | | | | 5.891 | (33/2+) | 175 |
| 111IN 176 | | 6.037 | 31/2+ | | | | | 176 |
| 111IN 177 | | 6.051 | 35/2+ | | | | | 177 |
| 111IN 178 | | | | 6.070 | 35/2- | | | 178 |
| 111IN 179 | | | | | | 6.433 | (33/2+) | 179 |
| 111IN 180 | | | | | | 6.538 | (37/2+) | 180 |
| ----- | | | | | | | | |
| 111IN 181 | | 6.701 | 35/2+ | | | | | 181 |
| 111IN 182 | | | | | | 7.044 | (37/2+) | 182 |
| 111IN 183 | | | | | | 7.175 | (39/2+) | 183 |
| 111IN 184 | | | | | | 7.280 | (37/2+) | 184 |
| 111IN 185 | | | | | | 7.606 | (39/2+) | 185 |
| 111IN 186 | | | | | | 7.917 | (41/2+) | 186 |
| 111IN 187 | | | | | | 8.183 | (41/2+) | 187 |
| 111IN 188 | | | | | | 8.336 | (41/2+) | 188 |
| 111IN 189 | | | | | | 8.681 | (43/2+) | 189 |
| 111IN 190 | | | | | | 8.811 | (43/2+) | 190 |
| ----- | | | | | | | | |
| 111IN 191 | | | | | | 9.214 | (45/2+) | 191 |

S-p = 5.333 (0.003)-----
S-n = 9.993 (0.012)-----
S-2p = 14.251 (0.004)-----
S-2n = 18.045 (0.005)-----
S-alpha= 2.410 (0.004)-----

S+p = -7.552 (0.003)
S+n = -7.669 (0.005)
S+2p = -10.603 (0.018)
S+2n = -17.118 (0.003)
S+alpha = -1.036 (0.016)

gap p = -2.219 (0.005)
gap n = 2.324 (0.013)
gap 2p = 3.648 (0.018)
gap 2n = 0.927 (0.006)
gap alpha = 1.374 (0.017)