

^{204}Po $Z = 84$ $N = 120$ adopted link ENSDF link

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

BE = 1599.173 (0.010) MeV

Qbeta+ = 2.305 (0.014) MeV

| | Energy T | J+ | | J- | | J-other | | T1/2 |
|----------|----------|----------|-------|-----|--|---------|----------|--------------|
| ----- | | | | | | | | |
| S-alpha= | -5.485 | (0.014) | ----- | | | | | |
| 204PO 1 | 0.000 | 0+ | | | | | | 1 3.519 H 12 |
| 204PO 2 | 0.684 | 2+ | | | | | | 2 |
| 204PO 3 | 1.201 | 4+ | | | | | | 3 |
| 204PO 4 | | | | | | 1.255 | (3)+ | 4 |
| 204PO 5 | 1.552 | 4+ | | | | | | 5 |
| 204PO 6 | 1.627 | 6+ | | | | | | 6 |
| 204PO 7 | | | | | | 1.635 | (3+) | 7 |
| 204PO 8 | 1.639 | 8+ | | | | | | 8 154 NS 4 |
| 204PO 9 | | | | | | 1.651 | (6-,7-) | 9 |
| 204PO 10 | | | | | | 1.716 | (3,4+) | 10 |
| ----- | | | | | | | | |
| 204PO 11 | | | | | | 1.729 | (4)+ | 11 |
| 204PO 12 | 1.962 | 6+ | | | | | | 12 |
| 204PO 13 | | | 2.042 | 5- | | | | 13 |
| 204PO 14 | | | | | | 2.100 | (3,4,5)+ | 14 |
| 204PO 15 | | | | | | 2.194 | | 15 |
| 204PO 16 | | | 2.227 | 9- | | | | 16 15.6 NS 5 |
| 204PO 17 | 2.248 | 8+ | | | | | | 17 |
| 204PO 18 | | | 2.290 | 7- | | | | 18 |
| 204PO 19 | | | 2.303 | 6- | | | | 19 |
| 204PO 20 | | | | | | 2.324 | 6,7,8 | 20 |
| ----- | | | | | | | | |
| 204PO 21 | | | | | | 2.376 | (7) | 21 |
| 204PO 22 | | | | | | 2.472 | (6,7)+ | 22 |
| 204PO 23 | 2.527 | 10+ | | | | | | 23 |
| 204PO 24 | 2.539 | 9+ | | | | | | 24 |
| 204PO 25 | | | | | | 2.548 | 6+,7,8+ | 25 |
| 204PO 26 | | | | | | 2.553 | 6,7,8 | 26 |
| 204PO 27 | | | | | | 2.587 | | 27 |
| 204PO 28 | | | 2.621 | 11- | | | | 28 3.6 NS 2 |
| 204PO 29 | | | | | | 2.728 | (7,8)+ | 29 |
| 204PO 30 | 2.789 | 10+ | | | | | | 30 |
| ----- | | | | | | | | |
| 204PO 31 | | | | | | 2.789 | (6,7,8+) | 31 |
| 204PO 32 | | | | | | 2.803 | (6,7-) | 32 |
| 204PO 33 | | | 2.828 | 10- | | | | 33 |
| 204PO 34 | | | | | | 2.895 | (11+) | 34 |
| 204PO 35 | | | 2.900 | 7- | | | | 35 |
| 204PO 36 | | | 2.905 | 11- | | | | 36 |

| | | | | | | | | | | |
|-------|----|----------------------|-------|-----|-------|-----|--|-------|-------------|----|
| 204P0 | 37 | | | | 2.946 | 10- | | | | 37 |
| 204P0 | 38 | | | | | | | 3.010 | (6+,7,8) | 38 |
| 204P0 | 39 | | 3.084 | 11+ | | | | | | 39 |
| 204P0 | 40 | | 3.125 | 12+ | | | | | | 40 |
| ----- | | | | | | | | | | |
| 204P0 | 41 | | 3.134 | 11+ | | | | | | 41 |
| 204P0 | 42 | | | | | | | 3.217 | (10,11,12)- | 42 |
| 204P0 | 43 | | | | 3.227 | 12- | | | | 43 |
| 204P0 | 44 | | | | | | | 3.387 | | 44 |
| 204P0 | 45 | | | | 3.387 | 13- | | | | 45 |
| 204P0 | 46 | | | | 3.439 | 13- | | | | 46 |
| 204P0 | 47 | | | | 3.459 | 12- | | | | 47 |
| 204P0 | 48 | | | | 3.528 | 13- | | | | 48 |
| 204P0 | 49 | | | | 3.564 | 15- | | | | 49 |
| 204P0 | 50 | | | | | | | 3.576 | | 50 |
| ----- | | | | | | | | | | |
| 204P0 | 51 | | | | | | | 3.649 | | 51 |
| 204P0 | 52 | | | | | | | 3.723 | | 52 |
| 204P0 | 53 | | | | 3.767 | 13- | | | | 53 |
| 204P0 | 54 | | | | 3.899 | 14- | | | | 54 |
| 204P0 | 55 | | | | 3.975 | 15- | | | | 55 |
| 204P0 | 56 | | | | | | | 4.096 | | 56 |
| S-p | = | 4.105 (0.016)----- | | | | | | | | |
| 204P0 | 57 | | | | | | | 4.137 | | 57 |
| 204P0 | 58 | | | | | | | 4.169 | (16-) | 58 |
| 204P0 | 59 | | | | 4.175 | 15- | | | | 59 |
| 204P0 | 60 | | | | | | | 4.187 | | 60 |
| ----- | | | | | | | | | | |
| 204P0 | 61 | | | | 4.203 | 15- | | | | 61 |
| 204P0 | 62 | | | | | | | 4.212 | (14+) | 62 |
| 204P0 | 63 | | | | | | | 4.313 | (16-) | 63 |
| 204P0 | 64 | | | | 4.359 | 16- | | | | 64 |
| 204P0 | 65 | | | | 4.362 | 13- | | | | 65 |
| 204P0 | 66 | | | | | | | 4.383 | (17-) | 66 |
| 204P0 | 67 | | | | | | | 4.438 | (16+) | 67 |
| 204P0 | 68 | | | | 4.471 | 17- | | | | 68 |
| 204P0 | 69 | | | | | | | 4.532 | | 69 |
| 204P0 | 70 | | | | | | | 4.615 | (18-) | 70 |
| ----- | | | | | | | | | | |
| 204P0 | 71 | | | | | | | 4.819 | | 71 |
| 204P0 | 72 | | | | | | | 4.978 | | 72 |
| 204P0 | 73 | | | | | | | 5.155 | | 73 |
| 204P0 | 74 | | | | | | | 5.295 | (19-) | 74 |
| 204P0 | 75 | | | | | | | 5.911 | (20,21-) | 75 |
| ----- | | | | | | | | | | |
| S-p | = | 4.105 (0.016)----- | | | | | | | | |
| S-n | = | 9.102 (0.011)----- | | | | | | | | |
| S-2p | = | 6.979 (0.011)----- | | | | | | | | |
| S-2n | = | 16.542 (0.013)----- | | | | | | | | |

S-alpha= -5.485 (0.014)-----

S+p = -1.932 (0.016)

S+n = -7.252 (0.014)

S+2p = -5.370 (0.013)

S+2n = -15.990 (0.011)

S+alpha = 6.261 (0.014)

gap p = 2.173 (0.023)

gap n = 1.850 (0.018)

gap 2p = 1.609 (0.017)

gap 2n = 0.552 (0.017)

gap alpha = 0.776 (0.020)