

$^{183}\text{Au}$        $Z = 79$        $N = 104$       adopted link      ENSDF link

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

BE = 1445.437 ( 0.009) MeV

Qbeta+ = 5.582 ( 0.017) MeV

|          | Energy T         | J+ | J- | J-other              | T1/2        |
|----------|------------------|----|----|----------------------|-------------|
| -----    |                  |    |    |                      |             |
| S-alpha= | -5.465 ( 0.014)  |    |    |                      |             |
| 183AU 1  |                  |    |    | 0.000 (5/2)-         | 1 42.8 S 10 |
| 183AU 2  |                  |    |    | 0.012 (9/2)-         | 2           |
| 183AU 3  |                  |    |    | 0.013 (3/2)-         | 3           |
| 183AU 4  |                  |    |    | 0.069 (7/2-)         | 4           |
| 183AU 5  |                  |    |    | 0.073 (1/2)+         | 5 1 US GT   |
| 183AU 6  |                  |    |    | 0.091 (5/2-,7/2-)    | 6           |
| 183AU 7  |                  |    |    | 0.173 (3/2,5/2)-     | 7           |
| 183AU 8  |                  |    |    | 0.179 (1/2,3/2,5/2)- | 8           |
| 183AU 9  |                  |    |    | 0.231 (11/2)-        | 9 1 US LT   |
| 183AU 10 |                  |    |    | 0.231 (13/2-)        | 10          |
| -----    |                  |    |    |                      |             |
| 183AU 11 |                  |    |    | 0.264 (5/2,7/2)-     | 11          |
| 183AU 12 |                  |    |    | 0.273 (11/2-)        | 12          |
| 183AU 13 |                  |    |    | 0.289 (3/2,5/2,7/2)- | 13          |
| 183AU 14 |                  |    |    | 0.297 (7/2)-         | 14          |
| 183AU 15 |                  |    |    | 0.318 (1/2,3/2,5/2)- | 15          |
| 183AU 16 |                  |    |    | 0.517 (7/2-)         | 16          |
| 183AU 17 |                  |    |    | 0.563 (LE7/2)        | 17          |
| 183AU 18 |                  |    |    | 0.565 (17/2-)        | 18          |
| 183AU 19 |                  |    |    | 0.600 (15/2-)        | 19          |
| 183AU 20 |                  |    |    | 0.702 (13/2+)        | 20          |
| -----    |                  |    |    |                      |             |
| 183AU 21 |                  |    |    | 0.780 (LE7/2)        | 21          |
| 183AU 22 |                  |    |    | 0.811 (LE7/2)        | 22          |
| 183AU 23 |                  |    |    | 0.818 (LE7/2)        | 23          |
| 183AU 24 |                  |    |    | 0.865 (17/2+)        | 24          |
| 183AU 25 |                  |    |    | 0.886 (LE7/2)        | 25          |
| 183AU 26 |                  |    |    | 0.989 (21/2-)        | 26          |
| 183AU 27 |                  |    |    | 1.023 (19/2-)        | 27          |
| 183AU 28 |                  |    |    | 1.025                | 28          |
| 183AU 29 |                  |    |    | 1.054 (19/2-)        | 29          |
| 183AU 30 |                  |    |    | 1.100                | 30          |
| -----    |                  |    |    |                      |             |
| 183AU 31 |                  |    |    | 1.148 (21/2+)        | 31          |
| S-p      | = 1.312 ( 0.016) |    |    |                      |             |
| 183AU 32 |                  |    |    | 1.487 (23/2-)        | 32          |
| 183AU 33 |                  |    |    | 1.492 (25/2-)        | 33          |
| 183AU 34 |                  |    |    | 1.528 (25/2+)        | 34          |
| 183AU 35 |                  |    |    | 1.544 (23/2-)        | 35          |

|          |   |        |          |       |         |    |
|----------|---|--------|----------|-------|---------|----|
| 183AU 36 |   |        |          | 1.605 | (LE7/2) | 36 |
| 183AU 37 |   |        |          | 1.671 |         | 37 |
| 183AU 38 |   |        |          | 1.681 |         | 38 |
| 183AU 39 |   |        |          | 1.682 | (LE7/2) | 39 |
| 183AU 40 |   |        |          | 1.737 | (23/2+) | 40 |
| -----    |   |        |          |       |         |    |
| 183AU 41 |   |        |          | 1.801 | (LE7/2) | 41 |
| 183AU 42 |   |        |          | 1.981 | (29/2+) | 42 |
| 183AU 43 |   |        |          | 1.986 | (27/2-) | 43 |
| 183AU 44 |   |        |          | 2.063 | (29/2-) | 44 |
| 183AU 45 |   |        |          | 2.118 | (27/2-) | 45 |
| 183AU 46 |   |        |          | 2.176 | (27/2+) | 46 |
| 183AU 47 |   |        |          | 2.491 | (33/2+) | 47 |
| 183AU 48 |   |        |          | 2.542 | (31/2-) | 48 |
| 183AU 49 |   |        |          | 2.682 | (31/2+) | 49 |
| 183AU 50 |   |        |          | 2.691 | (33/2-) | 50 |
| -----    |   |        |          |       |         |    |
| 183AU 51 |   |        |          | 2.742 | (31/2-) | 51 |
| 183AU 52 |   |        |          | 3.049 | (37/2+) | 52 |
| 183AU 53 |   |        |          | 3.149 | (35/2-) | 53 |
| 183AU 54 |   |        |          | 3.240 | (35/2+) | 54 |
| 183AU 55 |   |        |          | 3.360 | (37/2-) | 55 |
| 183AU 56 |   |        |          | 3.389 | (35/2-) | 56 |
| 183AU 57 |   |        |          | 3.657 | (41/2+) | 57 |
| 183AU 58 |   |        |          | 3.799 | (39/2-) | 58 |
| 183AU 59 |   |        |          | 3.839 | (39/2+) | 59 |
| 183AU 60 |   |        |          | 4.053 | (41/2-) | 60 |
| -----    |   |        |          |       |         |    |
| 183AU 61 |   |        |          | 4.310 | (45/2+) | 61 |
| 183AU 62 |   |        |          | 4.461 | (43/2-) | 62 |
| 183AU 63 |   |        |          | 4.766 | (45/2-) | 63 |
| 183AU 64 |   |        |          | 4.989 | (49/2+) | 64 |
| 183AU 65 |   |        |          | 5.129 | (47/2-) | 65 |
| -----    |   |        |          |       |         |    |
| S-2p     | = | 5.306  | ( 0.011) | ----- |         |    |
| 183AU 66 |   |        |          | 5.501 | (49/2-) | 66 |
| 183AU 67 |   |        |          | 5.681 | (53/2+) | 67 |
| 183AU 68 |   |        |          | 6.277 | (53/2-) | 68 |
| 183AU 69 |   |        |          | 6.381 | (57/2+) | 69 |
| 183AU 70 |   |        |          | 7.110 | (61/2+) | 70 |
| -----    |   |        |          |       |         |    |
| 183AU 71 |   |        |          | 7.879 | (65/2+) | 71 |
| -----    |   |        |          |       |         |    |
| S-p      | = | 1.312  | ( 0.016) | ----- |         |    |
| S-n      | = | 9.959  | ( 0.021) | ----- |         |    |
| S-2p     | = | 5.306  | ( 0.011) | ----- |         |    |
| S-2n     | = | 18.463 | ( 0.022) | ----- |         |    |
| S-alpha  | = | -5.465 | ( 0.014) | ----- |         |    |
|          |   |        |          |       |         |    |
| S+p      | = | -3.442 | ( 0.013) | ----- |         |    |

S+n = -8.199 ( 0.024)  
S+2p = -4.144 ( 0.023)  
S+2n = -17.809 ( 0.010)  
S+alpha = 5.322 ( 0.012)

gap p = -2.130 ( 0.021)  
gap n = 1.760 ( 0.032)  
gap 2p = 1.162 ( 0.025)  
gap 2n = 0.654 ( 0.024)  
gap alpha = -0.143 ( 0.018)