

$^{210}\text{Rn}$        $Z = 86$        $N = 124$       [link to full NNDC output](#)

Based on ENSDF from Dec 2018, and mass evaluation from 2016

BE = 1637.300 ( 0.005) MeV

Qbeta+ = 2.367 ( 0.009) MeV

|          | Energy T | J+       | J-    | J-other    | T1/2         |
|----------|----------|----------|-------|------------|--------------|
| -----    |          |          |       |            |              |
| S-alpha= | -6.159   | ( 0.006) | ----- |            |              |
| 210RN 1  | 0.000    | 0+       |       |            | 1 2.4 H 1    |
| 210RN 2  | 0.644    | 2+       |       |            | 2            |
| 210RN 3  |          |          |       | 1.462 (4)+ | 3            |
| 210RN 4  |          |          |       | 1.545 (4)+ | 4            |
| 210RN 5  |          |          |       | 1.665 (6)+ | 5 7.6 NS 7   |
| 210RN 6  |          |          |       | X+1664.6   | 6 644 NS 40  |
| 210RN 7  |          |          |       | X+2031.60  | 7            |
| 210RN 8  |          |          |       | X+2265.79  | 8 21 NS LT   |
| 210RN 9  |          |          |       | X+2376.88  | 9 1.4 NS LT  |
| 210RN 10 |          |          |       | X+2562.31  | 10 64 NS 3   |
| -----    |          |          |       |            |              |
| 210RN 11 |          |          |       | X+2922.63  | 11 1.4 NS LT |
| 210RN 12 |          |          |       | X+3110.05  | 12 5.5 NS LT |
| 210RN 13 |          |          |       | X+3248.06  | 13 76 NS 7   |
| 210RN 14 |          |          |       | X+3404.14  | 14 5.5 NS LT |
| 210RN 15 |          |          |       | X+3782.81  | 15           |
| 210RN 16 |          |          |       | X+3812.40  | 16 1.06 US 5 |
| 210RN 17 |          |          |       | X+3864.28  | 17 8 NS LT   |
| 210RN 18 |          |          |       | X+3920.03  | 18 5.5 NS LT |
| 210RN 19 |          |          |       | X+4351.70  | 19           |
| 210RN 20 |          |          |       | X+4614.20  | 20           |
| -----    |          |          |       |            |              |
| 210RN 21 |          |          |       | X+4730.70  | 21           |
| 210RN 22 |          |          |       | X+4889.13  | 22           |
| 210RN 23 |          |          |       | X+4898.94  | 23 5.5 NS LT |
| 210RN 24 |          |          |       | X+4913.72  | 24           |
| 210RN 25 |          |          |       | X+4993.43  | 25 12.3 NS 9 |
| 210RN 26 |          |          |       | X+5046.41  | 26           |
| 210RN 27 |          |          |       | X+5056.20  | 27           |
| 210RN 28 |          |          |       | X+5162.8   | 28           |
| 210RN 29 |          |          |       | X+5170.8   | 29           |
| 210RN 30 |          |          |       | X+5253.87  | 30           |
| -----    |          |          |       |            |              |
| 210RN 31 |          |          |       | X+5380.99  | 31 5.5 NS LT |
| 210RN 32 |          |          |       | X+5383.87  | 32 5.5 NS LT |
| 210RN 33 |          |          |       | X+5684.64  | 33 5.5 NS LT |
| 210RN 34 |          |          |       | X+5861.0   | 34           |
| 210RN 35 |          |          |       | X+5866.33  | 35 5.5 NS LT |
| 210RN 36 |          |          |       | X+5876.31  | 36 7 NS LT   |

|       |    |  |  |           |    |         |    |
|-------|----|--|--|-----------|----|---------|----|
| 21ORN | 37 |  |  | X+6036.02 | 37 | 7 NS    | LT |
| 21ORN | 38 |  |  | X+6469.02 | 38 | 1.04 US | 7  |
| 21ORN | 39 |  |  | X+6525.83 | 39 |         |    |
| 21ORN | 40 |  |  | X+6543.4  | 40 |         |    |
| ----- |    |  |  |           |    |         |    |
| 21ORN | 41 |  |  | X+6895.12 | 41 | 35 NS   | LT |
| 21ORN | 42 |  |  | X+7035.9  | 42 |         |    |
| 21ORN | 43 |  |  | X+7224.3  | 43 |         |    |
| 21ORN | 44 |  |  | X+7311.02 | 44 | 34 NS   | 2  |
| 21ORN | 45 |  |  | X+7329.4  | 45 |         |    |
| 21ORN | 46 |  |  | X+7379.8  | 46 |         |    |
| 21ORN | 47 |  |  | X+7419.3  | 47 |         |    |
| 21ORN | 48 |  |  | X+7460.4  | 48 |         |    |
| 21ORN | 49 |  |  | X+7875.13 | 49 |         |    |
| 21ORN | 50 |  |  | X+7973.4  | 50 |         |    |
| ----- |    |  |  |           |    |         |    |
| 21ORN | 51 |  |  | X+7978.6  | 51 |         |    |
| 21ORN | 52 |  |  | X+8263.3  | 52 |         |    |
| 21ORN | 53 |  |  | X+8556.13 | 53 | 1.8 NS  | 2  |
| 21ORN | 54 |  |  | X+8887.4  | 54 |         |    |
| 21ORN | 55 |  |  | X+8899.1  | 55 |         |    |
| 21ORN | 56 |  |  | X+8928.6  | 56 |         |    |
| 21ORN | 57 |  |  | X+9249.6  | 57 | 0.69 NS | LT |
| 21ORN | 58 |  |  | X+9569.3  | 58 |         |    |
| 21ORN | 59 |  |  | X+9735.6  | 59 |         |    |
| 21ORN | 60 |  |  | X+9764.7  | 60 | 0.69 NS | LT |
| ----- |    |  |  |           |    |         |    |
| 21ORN | 61 |  |  | X+10079.9 | 61 |         |    |
| 21ORN | 62 |  |  | X+10086.8 | 62 | 0.69 NS | LT |
| 21ORN | 63 |  |  | X+10752.1 | 63 | 0.69 NS | LT |
| 21ORN | 64 |  |  | X+10835.6 | 64 |         |    |
| 21ORN | 65 |  |  | X+10975.4 | 65 |         |    |
| 21ORN | 66 |  |  | X+11185.9 | 66 |         |    |
| 21ORN | 67 |  |  | X+11492.3 | 67 |         |    |
| 21ORN | 68 |  |  | X+11978.4 | 68 |         |    |
| 21ORN | 69 |  |  | X+12026.0 | 69 | 0.69 NS | LT |

S-p = 4.011 ( 0.007)-----  
S-n = 8.735 ( 0.011)-----  
S-2p = 6.713 ( 0.005)-----  
S-2n = 16.092 ( 0.012)-----  
S-alpha= -6.159 ( 0.006)-----

S+p = -1.824 ( 0.013)  
S+n = -7.222 ( 0.008)  
S+2p = -5.172 ( 0.012)  
S+2n = -15.197 ( 0.006)  
S+alpha = 7.273 ( 0.007)

gap p = 2.187 ( 0.015)  
gap n = 1.513 ( 0.014)  
gap 2p = 1.541 ( 0.013)  
gap 2n = 0.895 ( 0.013)  
gap alpha = 1.114 ( 0.009)