

$^{224}\text{Fr}$        $Z = 87$        $N = 137$       adopted link      ENSDF link

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

BE = 1718.162 ( 0.011) MeV

Qbeta- = 2.923 ( 0.011) MeV

|          | Energy T        | J+ | J-    | J-other | T1/2        |
|----------|-----------------|----|-------|---------|-------------|
| -----    |                 |    |       |         |             |
| S-alpha= | -4.948 ( 0.018) |    |       |         |             |
| 224FR 1  |                 |    | 0.000 | 1(-)    | 1 3.33 M 10 |

|          |                   |       |  |  |  |
|----------|-------------------|-------|--|--|--|
| S-p      | = 5.930 ( 0.014)  | ----- |  |  |  |
| S-n      | = 4.705 ( 0.011)  | ----- |  |  |  |
| S-2p     | = 13.782 ( 0.019) | ----- |  |  |  |
| S-2n     | = 10.772 ( 0.013) | ----- |  |  |  |
| S-alpha= | -4.948 ( 0.018)   | ----- |  |  |  |

|         |                    |
|---------|--------------------|
| S+p     | = -7.045 ( 0.011)  |
| S+n     | = -5.999 ( 0.016)  |
| S+2p    | = -12.017 ( 0.012) |
| S+2n    | = -10.371 ( 0.013) |
| S+alpha | = 4.721 ( 0.011)   |

|           |                   |
|-----------|-------------------|
| gap p     | = -1.115 ( 0.018) |
| gap n     | = -1.294 ( 0.020) |
| gap 2p    | = 1.765 ( 0.023)  |
| gap 2n    | = 0.401 ( 0.019)  |
| gap alpha | = -0.227 ( 0.021) |