

^{172}Lu $Z = 71$ $N = 101$ adopted link ENSDF link

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

BE = 1389.456 (0.002) MeV

Qbeta+ = 2.519 (0.002) MeV

| | Energy T | J+ | J- | J-other | T1/2 |
|----------|----------|----------|----------|------------------|---------------|
| ----- | | | | | |
| S-alpha= | -2.151 | (0.003) | ----- | | |
| 172LU 1 | | | 0.000 4- | | 1 6.70 D 3 |
| 172LU 2 | | | 0.042 1- | | 2 3.7 M 5 |
| 172LU 3 | | | | 0.066 (1)+ | 3 0.332 US 20 |
| 172LU 4 | | | | 0.068 (3-) | 4 |
| 172LU 5 | | | | 0.068 (3+) | 5 |
| 172LU 6 | | | | 0.109 (1)+ | 6 440 US 12 |
| 172LU 7 | | | | 0.110 (2)+ | 7 2.30 NS 12 |
| 172LU 8 | | | | 0.111 (5-) | 8 |
| 172LU 9 | | | | 0.132 (2+) | 9 |
| 172LU 10 | | | | 0.148 (5+) | 10 |
| ----- | | | | | |
| 172LU 11 | | | | 0.168 (4-) | 11 |
| 172LU 12 | | | | 0.180 (1)+ | 12 |
| 172LU 13 | | | | 0.192 (1)+ | 13 0.5 NS LE |
| 172LU 14 | | | | 0.197 (0,1,2)- | 14 |
| 172LU 15 | | | | 0.204 (0+,1+,2+) | 15 |
| 172LU 16 | | | | 0.210 (4+) | 16 |
| 172LU 17 | | | | 0.214 (6-) | 17 150 NS |
| 172LU 18 | | | | 0.232 (1)+ | 18 |
| 172LU 19 | | | | 0.237 (0+) | 19 |
| 172LU 20 | | | | 0.237 (0-,1-) | 20 |
| ----- | | | | | |
| 172LU 21 | | | | 0.245 (6-) | 21 |
| 172LU 22 | | | | 0.252 (0+,1+) | 22 |
| 172LU 23 | | | | 0.290 (5-) | 23 |
| 172LU 24 | | | | 0.296 | 24 |
| 172LU 25 | | | | 0.314 (2+) | 25 |
| 172LU 26 | | | | 0.355 (3+) | 26 |
| 172LU 27 | | | | 0.399 (7-) | 27 |
| 172LU 28 | | | | 0.406 (2-) | 28 |
| 172LU 29 | | | | 0.434 (6-) | 29 |
| 172LU 30 | | | | 0.437 | 30 |
| ----- | | | | | |
| 172LU 31 | | | | 0.466 (3-) | 31 |
| 172LU 32 | | | | 0.513 (3-) | 32 |
| 172LU 33 | | | | 0.577 (8-) | 33 |
| 172LU 34 | | | | 0.581 (5+) | 34 |
| 172LU 35 | | | | 0.602 (7-) | 35 |
| 172LU 36 | | | | 0.614 (5+) | 36 |

| | | | | | | |
|----------|--|--|--|-------|------|----|
| 172LU 37 | | | | 0.640 | (5+) | 37 |
| 172LU 38 | | | | 0.663 | | 38 |
| 172LU 39 | | | | 0.685 | (6+) | 39 |
| 172LU 40 | | | | 0.720 | (6+) | 40 |

S-p = 4.718 (0.002)-----

S-n = 6.979 (0.003)-----

S-2p = 11.519 (0.002)-----

S-2n = 15.573 (0.017)-----

S-alpha= -2.151 (0.003)-----

S+p = -5.965 (0.028)

S+n = -8.216 (0.003)

S+2p = -9.583 (0.028)

S+2n = -14.977 (0.003)

S+alpha = 2.946 (0.031)

gap p = -1.247 (0.028)

gap n = -1.237 (0.004)

gap 2p = 1.936 (0.028)

gap 2n = 0.596 (0.017)

gap alpha = 0.794 (0.031)