

^{42}Cl $Z = 17$ $N = 25$ adopted link ENSDF link

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

BE = 350.527 (0.060) MeV

Qbeta- = 9.591 (0.060) MeV

| | Energy T | J+ | J- | J-other | T1/2 |
|---------|----------|----|----|-----------------|-----------|
| 42CL 1 | | | | 0.000 (2-) | 1 6.8 S 3 |
| 42CL 2 | | | | 0.118 (3-) | 2 |
| 42CL 3 | | | | 0.522 (4-) | 3 |
| 42CL 4 | | | | 0.589 (1-,2,3+) | 4 |
| 42CL 5 | | | | 0.639 (1-,2,3+) | 5 |
| 42CL 6 | | | | 0.842 (1-,2,3+) | 6 |
| 42CL 7 | | | | 1.026 (1-,2,3+) | 7 |
| 42CL 8 | 1.267 | 1+ | | | 8 |
| 42CL 9 | | | | 1.386 | 9 |
| 42CL 10 | | | | 1.550 | 10 |
| 42CL 11 | | | | 1.577 | 11 |
| 42CL 12 | | | | 1.684 | 12 |
| 42CL 13 | | | | 1.711 | 13 |
| 42CL 14 | | | | 1.835 | 14 |
| 42CL 15 | 2.123 | 1+ | | | 15 |
| 42CL 16 | | | | 2.221 | 16 |
| 42CL 17 | | | | 2.241 (1+) | 17 |
| 42CL 18 | | | | 2.403 | 18 |
| 42CL 19 | 3.030 | 1+ | | | 19 |

S-p = 13.112 (0.060)-----
S-n = 5.596 (0.091)-----
S-2p = 31.271 (0.103)-----
S-2n = 13.417 (0.068)-----
S-alpha= 12.635 (0.094)-----

S+p = -14.467 (0.060)
S+n = -7.399 (0.086)
S+2p = -25.528 (0.060)
S+2n = -11.790 (0.104)
S+alpha = -13.007 (0.060)

gap p = -1.355 (0.085)
gap n = -1.803 (0.125)
gap 2p = 5.743 (0.119)
gap 2n = 1.627 (0.124)
gap alpha = -0.372 (0.111)