

^{27}Mg $Z = 12$ $N = 15$ [link to full NNDC output](#)

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

BE = 223.124 (0.000) MeV

Qbeta- = 2.610 (0.000) MeV

| | Energy T | J+ | J- | J-other | T1/2 |
|---------|----------|------|------------|----------------------|--------------|
| 27MG 1 | 0.000 | 1/2+ | | | 1 9.458 M 12 |
| 27MG 2 | 0.985 | 3/2+ | | | 2 0.97 PS 24 |
| 27MG 3 | 1.699 | 5/2+ | | | 3 0.81 PS 17 |
| 27MG 4 | 1.940 | 5/2+ | | | 4 0.65 PS 14 |
| 27MG 5 | | | | 3.110 (7/2+) | 5 71 FS 18 |
| 27MG 6 | | | | 3.427 (5/2+,7/2+) | 6 69 FS 34 |
| 27MG 7 | 3.476 | 1/2+ | | | 7 6.9 FS LT |
| 27MG 8 | | | | 3.491 3/2+,5/2+ | 8 9.7 FS LT |
| 27MG 9 | | | 3.562 3/2- | | 9 7 FS LT |
| 27MG 10 | | | | 3.761 5/2-,7/2- | 10 0.42 PS 7 |
| 27MG 11 | 3.787 | 3/2+ | | | 11 17 FS LT |
| 27MG 12 | | | | 3.885 (5/2+,9/2+) | 12 0.5 PS GT |
| 27MG 13 | | | | 4.150 (3/2+,5/2+) | 13 7 FS LT |
| 27MG 14 | | | | 4.399 (5/2+,9/2+) | 14 45 FS 24 |
| 27MG 15 | | | | 4.553 (3/2+,5/2+) | 15 9 FS LT |
| 27MG 16 | | | | 4.777 (3/2,5/2,7/2)+ | 16 24 FS LT |
| 27MG 17 | | | | 4.828 1/2-,3/2- | 17 7 FS LT |
| 27MG 18 | | | | 4.993 (5/2+) | 18 7 FS LT |
| 27MG 19 | 5.029 | 1/2+ | | | 19 28 FS LT |
| 27MG 20 | | | | 5.173 (3/2,5/2)+ | 20 10 FS LT |
| 27MG 21 | | | | 5.297 | 21 41 FS LT |
| 27MG 22 | | | | 5.373 (5/2-) | 22 16 FS LT |
| 27MG 23 | | | | 5.413 | 23 7 FS LT |
| 27MG 24 | | | | 5.422 1/2-,3/2- | 24 7 FS LT |
| 27MG 25 | | | | 5.628 (3/2,5/2)+ | 25 7 FS LT |
| 27MG 26 | | | | 5.750 5/2 T0 9/2 | 26 17 FS LT |
| 27MG 27 | | | | 5.765 (3/2,5/2)+ | 27 17 FS LT |
| 27MG 28 | | | | 5.822 (3/2,5/2)+ | 28 7 FS LT |
| 27MG 29 | | | | 5.830 | 29 82 FS LT |
| 27MG 30 | | | | 5.906 (1/2,3/2)- | 30 |
| 27MG 31 | | | | 5.926 | 31 34 FS 28 |
| 27MG 32 | | | | 6.009 | 32 7 FS LT |
| 27MG 33 | | | | 6.084 | 33 |
| 27MG 34 | | | | 6.125 | 34 |
| 27MG 35 | | | | 6.161 | 35 |
| 27MG 36 | | | | 6.312 | 36 |
| 27MG 37 | | | | 6.336 | 37 |

| | | | | | | | |
|-------|----|-------|---|--------|-------|--|----|
| 27MG | 38 | | | | 6.380 | | 38 |
| S-n | = | 6.443 | (| 0.000) | ----- | | |
| 27MG | 39 | | | | 6.508 | | 39 |
| 27MG | 40 | | | | 6.651 | | 40 |
| ----- | | | | | | | |
| 27MG | 41 | | | | 6.721 | | 41 |
| 27MG | 42 | | | | 6.811 | | 42 |
| 27MG | 43 | | | | 6.859 | | 43 |
| 27MG | 44 | | | | 6.921 | | 44 |
| 27MG | 45 | | | | 6.991 | | 45 |
| 27MG | 46 | | | | 7.013 | | 46 |
| 27MG | 47 | | | | 7.147 | | 47 |
| 27MG | 48 | | | | 7.278 | | 48 |
| 27MG | 49 | | | | 7.505 | | 49 |
| 27MG | 50 | | | | 7.530 | | 50 |
| ----- | | | | | | | |
| 27MG | 51 | | | | 7.690 | | 51 |
| 27MG | 52 | | | | 7.700 | | 52 |
| 27MG | 53 | | | | 7.859 | | 53 |
| 27MG | 54 | | | | 7.927 | | 54 |
| 27MG | 55 | | | | 7.976 | | 55 |

S-p = 15.015 (0.004)-----
 S-n = 6.443 (0.000)-----
 S-2p = 27.129 (0.029)-----
 S-2n = 17.536 (0.000)-----
 S-alpha= 11.857 (0.000)-----

S+p = -9.553 (0.000)
 S+n = -8.504 (0.002)
 S+2p = -21.886 (0.000)
 S+2n = -12.159 (0.011)
 S+alpha = -10.787 (0.000)

gap p = 5.462 (0.004)
 gap n = -2.060 (0.002)
 gap 2p = 5.243 (0.029)
 gap 2n = 5.378 (0.011)
 gap alpha = 1.070 (0.000)