

$^{29}\text{Al}$        $Z = 13$        $N = 16$       adopted link      ENSDF link

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

BE = 242.105 ( 0.000) MeV

Qbeta- = 3.687 ( 0.000) MeV

|         | Energy T | J+   | J- | J-other                 | T1/2        |
|---------|----------|------|----|-------------------------|-------------|
| 29AL 1  | 0.000    | 5/2+ |    |                         | 1 6.56 M 6  |
| 29AL 2  | 1.398    | 1/2+ |    |                         | 2 4.5 PS 3  |
| 29AL 3  | 1.754    | 7/2+ |    |                         | 3 22 FS 7   |
| 29AL 4  | 2.224    | 3/2+ |    |                         | 4 75 FS 17  |
| 29AL 5  | 2.866    | 3/2+ |    |                         | 5 71 FS 17  |
| 29AL 6  |          |      |    | 3.062 (5/2)+            | 6 58 FS 21  |
| 29AL 7  | 3.185    | 5/2+ |    |                         | 7 124 FS 23 |
| 29AL 8  | 3.433    | 1/2+ |    |                         | 8 7 NS LT   |
| 29AL 9  |          |      |    | 3.578 (9/2)+            | 9 25 FS 7   |
| 29AL 10 |          |      |    | 3.641 (5/2)+            | 10 70 FS LT |
| 29AL 11 |          |      |    | 3.672 (3/2,5/2)+        | 11 70 FS LT |
| 29AL 12 |          |      |    | 3.935 (3/2,7/2)+        | 12 90 FS 21 |
| 29AL 13 |          |      |    | 3.986 (5/2-,7/2-)       | 13 28 FS LT |
| 29AL 14 |          |      |    | 4.057 (1/2,3/2)+        | 14 83 FS 48 |
| 29AL 15 | 4.220    | 5/2+ |    |                         | 15 42 FS 15 |
| 29AL 16 |          |      |    | 4.403 (7/2)+            | 16 42 FS 21 |
| 29AL 17 | 4.656    | 5/2+ |    |                         | 17          |
| 29AL 18 |          |      |    | 4.715                   | 18          |
| 29AL 19 |          |      |    | 4.828                   | 19 42 FS 21 |
| 29AL 20 |          |      |    | 4.941                   | 20 29 FS 8  |
| 29AL 21 |          |      |    | 5.023                   | 21 83 FS LT |
| 29AL 22 |          |      |    | 5.145                   | 22          |
| 29AL 23 |          |      |    | 5.182                   | 23          |
| 29AL 24 |          |      |    | 5.248                   | 24 90 FS LT |
| 29AL 25 |          |      |    | 5.264                   | 25 76 FS 49 |
| 29AL 26 |          |      |    | 5.392                   | 26          |
| 29AL 27 |          |      |    | 5.433                   | 27          |
| 29AL 28 |          |      |    | 5.549                   | 28          |
| 29AL 29 |          |      |    | 5.580                   | 29          |
| 29AL 30 |          |      |    | 5.660                   | 30          |
| 29AL 31 |          |      |    | 5.733                   | 31          |
| 29AL 32 |          |      |    | 5.855 11/2+, (7/2,9/2+) | 32 29 FS 13 |
| 29AL 33 |          |      |    | 5.922                   | 33          |
| 29AL 34 |          |      |    | 5.994 (1/2+ TO 7/2+)    | 34 62 FS LT |
| 29AL 35 |          |      |    | 6.068                   | 35          |
| 29AL 36 |          |      |    | 6.154                   | 36          |
| 29AL 37 |          |      |    | 6.359                   | 37          |

|       |    |  |  |  |       |    |
|-------|----|--|--|--|-------|----|
| 29AL  | 38 |  |  |  | 6.410 | 38 |
| 29AL  | 39 |  |  |  | 6.450 | 39 |
| 29AL  | 40 |  |  |  | 6.472 | 40 |
| ----- |    |  |  |  |       |    |
| 29AL  | 41 |  |  |  | 6.516 | 41 |
| 29AL  | 42 |  |  |  | 6.582 | 42 |
| 29AL  | 43 |  |  |  | 6.670 | 43 |
| 29AL  | 44 |  |  |  | 6.689 | 44 |
| 29AL  | 45 |  |  |  | 6.762 | 45 |
| 29AL  | 46 |  |  |  | 6.840 | 46 |
| 29AL  | 47 |  |  |  | 6.984 | 47 |
| 29AL  | 48 |  |  |  | 7.065 | 48 |
| 29AL  | 49 |  |  |  | 7.093 | 49 |
| 29AL  | 50 |  |  |  | 7.179 | 50 |
| ----- |    |  |  |  |       |    |

S-p = 10.477 ( 0.000)-----  
 S-n = 9.428 ( 0.000)-----  
 S-2p = 27.268 ( 0.004)-----  
 S-2n = 17.154 ( 0.000)-----  
 S-alpha= 11.275 ( 0.001)-----

S+p = -13.514 ( 0.000)  
 S+n = -5.728 ( 0.002)  
 S+2p = -20.811 ( 0.000)  
 S+2n = -12.886 ( 0.002)  
 S+alpha = -10.555 ( 0.001)

gap p = -3.037 ( 0.001)  
 gap n = 3.701 ( 0.002)  
 gap 2p = 6.457 ( 0.004)  
 gap 2n = 4.268 ( 0.002)  
 gap alpha = 0.720 ( 0.002)