

$^{33}\text{Al}$        $Z = 13$        $N = 20$       adopted link      ENSDF link

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

BE = 264.680 ( 0.007) MeV

Qbeta- = 12.017 ( 0.007) MeV

	Energy T	J+	J-	J-other	T1/2
33AL 1				0.000 (5/2)+	1 41.7 MS 2
33AL 2				0.748 (5/2+)	2
33AL 3				1.618 (1/2+:9/2+)	3
33AL 4				1.838 (3/2-,5/2-)	4
33AL 5				2.365 (3/2-,5/2-)	5
33AL 6				3.264	6
33AL 7				3.714 (3/2-,5/2-)	7
33AL 8				4.310 (1/2,3/2-,5/2-)	8
33AL 9				4.730 (3/2-,5/2-)	9
S-n	= 5.469 ( 0.010)	-----			
33AL 10				5.930 (1/2-,3/2-,5/2-)	10
33AL 11				5.980 (1/2-,3/2-,5/2-)	11
33AL 12				6.820 (1/2-,3/2-,5/2-)	12
33AL 13				7.250 (1/2-,3/2-,5/2-)	13
33AL 14				7.470 (1/2-,3/2-,5/2-)	14
33AL 15				8.870 (1/2-,3/2-,5/2-)	15

S-p = 14.957 ( 0.008)-----

S-n = 5.469 ( 0.010)-----

S-2p = 35.321 ( 0.016)-----

S-2n = 9.689 ( 0.007)-----

S-alpha= 13.602 ( 0.010)-----

S+p = -18.783 ( 0.007)

S+n = -2.572 ( 0.007)

S+2p = -30.938 ( 0.007)

S+2n = -7.869 ( 0.010)

S+alpha = -12.924 ( 0.039)

gap p = -3.826 ( 0.010)

gap n = 2.898 ( 0.012)

gap 2p = 4.383 ( 0.017)

gap 2n = 1.820 ( 0.013)

gap alpha = 0.679 ( 0.040)