

$^{228}\text{Pa}$        $Z = 91$        $N = 137$       adopted link      ENSDF link

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

BE = 1740.143 ( 0.004) MeV

Qbeta+ = 2.153 ( 0.005) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-6.265 ( 0.006)				
228PA 1	0.000	3+			1 22 H 1
228PA 2				0.000	2

S-p = 4.170 ( 0.005)-----  
 S-n = 5.978 ( 0.008)-----  
 S-2p = 9.964 ( 0.005)-----  
 S-2n = 13.253 ( 0.012)-----  
 S-alpha= -6.265 ( 0.006)-----

S+p = -5.002 ( 0.007)  
 S+n = -7.098 ( 0.005)  
 S+2p = -8.265 ( 0.055)  
 S+2n = -12.893 ( 0.005)  
 S+alpha = 5.935 ( 0.004)

gap p = -0.832 ( 0.009)  
 gap n = -1.120 ( 0.010)  
 gap 2p = 1.699 ( 0.055)  
 gap 2n = 0.360 ( 0.013)  
 gap alpha = -0.329 ( 0.007)