

$^{160}\text{Hf}$        $Z = 72$        $N = 88$       adopted link      ENSDF link

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

BE = 1281.021 ( 0.010) MeV

Qbeta+ = 4.331 ( 0.058) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-4.902	( 0.013)	-----		
160HF 1	0.000	0+			1    13.6 S    2
160HF 2	0.389	2+			2
160HF 3	0.898	4+			3
160HF 4	1.493	6+			4
160HF 5	2.147	8+			5
160HF 6				2.255    7(-)	6
160HF 7				2.714    9(-)	7
160HF 8				2.748    9(-)	8
160HF 9	2.815	10+			9
160HF 10				2.964    10(-)	10
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160HF 11				3.026    11(-)	11
160HF 12	3.475	12+			12
160HF 13				3.503    12(-)	13
S-p	= 3.519	( 0.039)	-----		
160HF 14				3.530    13(-)	14
160HF 15				4.076    (14+)	15
160HF 16				4.108    (14-)	16
160HF 17				4.120    15(-)	17
S-2p	= 4.507	( 0.012)	-----		
160HF 18				4.735    (16+)	18
160HF 19				4.747    (17-)	19
160HF 20				4.762    (16-)	20
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160HF 21				5.351    (18-)	21
160HF 22				5.415    (18+)	22
160HF 23				5.506    (19-)	23
160HF 24				6.087    (20-)	24
160HF 25				6.284    (21-)	25
160HF 26				7.000    (23-)	26
160HF 27				7.747    (25-)	27
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S-p	= 3.519	( 0.039)	-----		
S-n	= 11.157	( 0.019)	-----		
S-2p	= 4.507	( 0.012)	-----		
S-2n	= 19.979	( 0.020)	-----		
S-alpha=	-4.902	( 0.013)	-----		

S+p = -0.129 ( 0.026)  
S+n = -8.448 ( 0.025)  
S+2p = -2.638 ( 0.020)  
S+2n = -19.372 ( 0.013)  
S+alpha = 5.278 ( 0.014)

gap p = 3.390 ( 0.047)  
gap n = 2.709 ( 0.032)  
gap 2p = 1.869 ( 0.024)  
gap 2n = 0.607 ( 0.024)  
gap alpha = 0.376 ( 0.019)