

^{146}Eu $Z = 63$ $N = 83$ adopted link ENSDF link

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

BE = 1206.242 (0.006) MeV

Qbeta+ = 3.879 (0.007) MeV

	Energy T	J+		J-		J-other		T1/2

S-alpha=	-1.599 (0.024)-----							
146EU 1				0.000	4-			1 4.61 D 3
146EU 2				0.015	5-			2
146EU 3				0.115	3-			3 3.7 PS 16
146EU 4				0.230	2-			4 5.8 PS 15
146EU 5				0.289	6-			5
146EU 6				0.316	5-			6
146EU 7							0.331	7
146EU 8				0.373	6-			8
146EU 9				0.385	1-			9
146EU 10							0.422 (3,4)-	10

146EU 11							0.436	11
146EU 12							0.498 (1,2)-	12
146EU 13				0.648	7-			13
146EU 14		0.666		9+				14 235 US 3
146EU 15				0.691	2-			15
146EU 16							0.753	16
146EU 17		0.802		8+				17
146EU 18							0.806	18
146EU 19							0.840	19
146EU 20							0.878	20

146EU 21							0.914	21
146EU 22							0.936	22
146EU 23							1.201	23
146EU 24		1.235		9+				24
146EU 25		1.699		10+				25
146EU 26				1.769	11-			26 4.5 NS 7
146EU 27				1.883	9-			27
146EU 28				1.978	10-			28
146EU 29				2.027	12-			29
146EU 30		2.105		11+				30

146EU 31							2.540 (12+)	31
146EU 32							2.666 (13+)	32
146EU 33							2.951 (14+)	33
146EU 34							3.200	34
146EU 35							3.302 (14)	35
146EU 36							3.400	36

146EU 37				3.470	(15+)	37
146EU 38				3.509	(14)	38
146EU 39				3.619	(15)	39
146EU 40				3.714	(15)	40

146EU 41				3.746	(16)	41
S-p	=	3.755	(0.006)	-----		
146EU 42				3.782	(15)	42
146EU 43				3.911	(16)	43
146EU 44				4.120	(16)	44
146EU 45				4.130		45
146EU 46				4.160	(17)	46
146EU 47				4.171	(16)	47
146EU 48				4.615	(18)	48
146EU 49				5.023	(19)	49
146EU 50				5.058	(18)	50

146EU 51				5.169	(18)	51
146EU 52				5.184	(20)	52
146EU 53				5.372	(19)	53
146EU 54				5.486	(18)	54
146EU 55				5.526	(18)	55
146EU 56				5.830	(19)	56
146EU 57				5.905	(20)	57
146EU 58				6.185	(21)	58
146EU 59				6.345	(22)	59
146EU 60				6.351	(20)	60

146EU 61				6.689	(21)	61
146EU 62				6.833	(21)	62
146EU 63				6.981	(22)	63
S-n	=	7.197	(0.007)	-----		
146EU 64				7.536	(23)	64
146EU 65				8.129	(24)	65
146EU 66				8.139	(24)	66
146EU 67				8.208	(25)	67
146EU 68				8.446	(26)	68
146EU 69				8.650	(27)	69
146EU 70				9.167	(28)	70

10.0 NS 6

S-p	=	3.755	(0.006)	-----		
S-n	=	7.197	(0.007)	-----		
S-2p	=	10.279	(0.007)	-----		
S-2n	=	17.641	(0.012)	-----		
S-alpha	=	-1.599	(0.024)	-----		
S+p	=	-5.528	(0.006)			
S+n	=	-8.498	(0.007)			

S+2p = -7.997 (0.014)
S+2n = -15.323 (0.012)
S+alpha = 3.587 (0.010)

gap p = -1.773 (0.009)
gap n = -1.301 (0.009)
gap 2p = 2.282 (0.015)
gap 2n = 2.318 (0.017)
gap alpha = 1.987 (0.026)