

^{128}Nd $Z = 60$ $N = 68$ adopted link ENSDF link

Based on ensdf_240402 (Apr 2024), and mass evaluation from 2020

BE = 1046.656 (-0.256) MeV

Qbeta+ = 5.863 (0.258) MeV

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

S-alpha=	-2.036	(-0.356)	-----		
128ND 1	0.000	0+			1 5 S
128ND 2	0.134	2+			2
128ND 3	0.424	4+			3 16 PS 4
128ND 4	0.848	6+			4 15 PS LT
128ND 5	1.377	8+			5
128ND 6			1.732	(4-)	6
128ND 7			1.877	(5-)	7
128ND 8			1.927	(5-)	8
128ND 9	1.987	10+			9
128ND 10			2.053	(6-)	10

128ND 11			2.223	(7-)	11
128ND 12			2.268	7(-)	12
128ND 13			2.483	(8-)	13
128ND 14			2.653	(9-)	14
128ND 15	2.656	12+			15
128ND 16			2.750	9(-)	16
128ND 17			3.009	(10-)	17
128ND 18			3.182	(11-)	18
S-p	3.224	(-0.361)	-----		
128ND 19			3.322	(11-)	19
128ND 20	3.372	14+			20

128ND 21			3.589	(12-)	21
128ND 22			3.795	(13-)	22
128ND 23			3.955	(13-)	23
128ND 24	4.136	16+			24
128ND 25			4.201	(14-)	25
S-2p	4.225	(-0.258)	-----		
128ND 26			4.481	(15-)	26
128ND 27			4.641	(15-)	27
128ND 28			4.886	(16-)	28
128ND 29	4.964	18+			29
128ND 30			5.232	(17-)	30

128ND 31			5.369	(17-)	31
128ND 32			5.646	(18-)	32
128ND 33	5.874	20+			33

128ND 34				6.052	(19-)		34
128ND 35				6.165	(19-)		35
128ND 36				6.490	(20-)		36
128ND 37		6.869	22+				37
128ND 38				6.942	(21-)		38
128ND 39				7.010	(21-)		39
128ND 40				7.382	(22-)		40

128ND 41				7.886	(23-)		41
128ND 42		7.938	24+				42
128ND 43				8.307	(24-)		43
128ND 44		9.062	26+				44
128ND 45				9.302	(26-)		45
128ND 46		10.228	28+				46
128ND 47		11.445	30+				47
S-n	=	12.622	(-0.361)	-----			
128ND 48		12.725	32+				48
128ND 49		14.081	34+				49

S-p = 3.224 (-0.361) -----
S-n = 12.622 (-0.361) -----
S-2p = 4.225 (-0.258) -----
S-2n = 23.284 (-0.359) -----
S-alpha = -2.036 (-0.356) -----

S+p = -0.050 (-0.363)
S+n = -9.983 (-0.363)
S+2p = -1.794 (-0.467)
S+2n = -22.271 (-0.258)
S+alpha = 2.848 (-0.368)

gap p = 3.174 (0.512)
gap n = 2.639 (0.512)
gap 2p = 2.432 (0.533)
gap 2n = 1.013 (0.442)
gap alpha = 0.812 (0.512)