

^{136}Nd $Z = 60$ $N = 76$ adopted link ENSDF link

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

BE = 1129.958 (0.012) MeV

Qbeta+ = 2.141 (0.016) MeV

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

S-alpha=	-0.844	(0.024)	-----		
136ND 1	0.000	0+			1 50.65 M 33
136ND 2	0.374	2+			2
136ND 3	0.862	2+			3
136ND 4	0.976	4+			4 8 PS LT
136ND 5				1.231 (3+)	5
136ND 6				1.542 (4+)	6
136ND 7	1.747	6+			7 14 PS LT
136ND 8				1.776	8
136ND 9				1.818	9
136ND 10				1.926	10

136ND 11				2.036 (5-)	11
136ND 12				2.046 (5+)	12
136ND 13				2.181	13
136ND 14				2.228 (3-,4,5,6+)	14
136ND 15				2.346	15
136ND 16				2.417	16
136ND 17				2.440 (7-)	17 21 PS 7
136ND 18				2.484 (6-)	18
136ND 19				2.523	19
136ND 20	2.633	8+			20 7 PS LT

136ND 21				2.758 (8-)	21
136ND 22				2.941 (9-)	22 6 PS 2
136ND 23				3.172	23
136ND 24				3.244 (10-)	24
136ND 25				3.279 (10+)	25
136ND 26	3.296	10+			26 51 PS 6
136ND 27				3.331	27
136ND 28				3.553 (10+)	28
136ND 29				3.602 (11-)	29
136ND 30	3.686	12+			30 19 PS 3

136ND 31				3.765	31
136ND 32				3.768 (10+)	32
136ND 33				3.782 (9-)	33
136ND 34				3.828	34
136ND 35				3.997 (12+)	35
136ND 36				4.002 (10-)	36

136ND 37				4.017	(12-)	37			
136ND 38				4.028		38			
136ND 39				4.256	(11-)	39			
136ND 40				4.320	(12+)	40			

136ND 41				4.347		41			
136ND 42				4.348	(14+)	42	4 PS		LT
136ND 43				4.387		43			
136ND 44				4.426	(13-)	44			
136ND 45				4.455	(13+)	45			
136ND 46				4.547		46			
136ND 47				4.550	(12-)	47			
136ND 48				4.838		48			
136ND 49				4.849	(14+)	49			
136ND 50				4.856	(14+)	50			

136ND 51				4.895	(13-)	51			
136ND 52				4.940		52			
136ND 53				5.022	(14+)	53			
136ND 54				5.023	(14-)	54			
136ND 55				5.032	(14+)	55			
136ND 56				5.133	(15+)	56			
136ND 57				5.192	(16+)	57			
136ND 58				5.306	(14-)	58			
136ND 59				5.309		59			
136ND 60				5.348	(13-)	60			

136ND 61				5.372		61			
136ND 62				5.416	(15-)	62			
136ND 63				5.417	(14-)	63			
136ND 64				5.531	(14-)	64			
S-p	=	5.552	(0.017)	-----					
136ND 65				5.570	(16+)	65			
136ND 66				5.597		66			
136ND 67				5.647	(15-)	67	0.64 PS		6
136ND 68				5.695	(16+)	68			
136ND 69				5.728		69			
136ND 70				5.731	(15-)	70	0.88 PS		4

136ND 71				5.760	(15-)	71			
136ND 72				5.844	(16+)	72			
136ND 73				5.877	(16+)	73			
136ND 74				5.943	(17+)	74			
136ND 75				5.955	(16-)	75	0.61 PS		7
136ND 76				5.979	(16-)	76	0.60 PS		6
136ND 77				6.008	(16+)	77			
136ND 78				6.040	(16-)	78			
136ND 79				6.192	(18+)	79			
136ND 80				6.231	(15+)	80			

136ND 81			6.239	(17+)	81			
136ND 82			6.261	(16-)	82			
136ND 83			6.275		83			
136ND 84			6.312	(17-)	84	0.49 PS	4	
136ND 85			6.323	(17-)	85	0.42 PS	5	
136ND 86			6.348	(16+)	86			
136ND 87			6.360	(17-)	87			
136ND 88			6.472	(18+)	88			
136ND 89			6.523	(18+)	89			
136ND 90			6.546	(18+)	90			

136ND 91			6.580	(17+)	91			
136ND 92			6.587		92			
136ND 93			6.676	(18-)	93			
136ND 94			6.713	(18-)	94	0.39 PS	6	
136ND 95			6.756	(18+)	95			
136ND 96			6.757	(18-)	96	0.35 PS	5	
136ND 97			6.771	(18+)	97			
136ND 98			6.868	(19+)	98			
136ND 99			6.885	(18+)	99			
136ND 100			6.930		100			

136ND 101			6.931	(19+)	101			
136ND 102			7.029	(17-)	102			
136ND 103			7.142	(19-)	103			
136ND 104			7.149	(19-)	104	0.222 PS	35	
136ND 105			7.223	(19-)	105	0.215 PS	35	
136ND 106			7.256	(20+)	106			
136ND 107			7.294	(19+)	107			
136ND 108			7.331	(20+)	108			
136ND 109			7.355	(20+)	109			
136ND 110			7.533	(20-)	110			

136ND 111			7.576	(20-)	111			
136ND 112			7.648	(19-)	112			
136ND 113			7.670	(20+)	113			
136ND 114			7.685	(19-)	114			
136ND 115			7.686	(21+)	115			
136ND 116			7.717	(20-)	116			
136ND 117			7.732	(20+)	117			
136ND 118			8.021	(21-)	118			
136ND 119			8.050	(21-)	119			
136ND 120			8.051	(21+)	120			

136ND 121			8.064	(21-)	121			
136ND 122			8.100	(21+)	122			
136ND 123			8.149	(22+)	123			
136ND 124			8.223	(22+)	124			
136ND 125			8.235	(21-)	125			
136ND 126			8.380	(22)	126			

136ND 127			8.402	(21-)	127				
136ND 128			8.467	(22+)	128				
136ND 129			8.509	(22-)	129				
136ND 130			8.555	(22-)	130				

136ND 131			8.622	(22+)	131				
136ND 132			8.653	(23+)	132				
136ND 133			8.755	(23)	133				
136ND 134			8.777	(22-)	134				
136ND 135			8.795	(22+)	135				
S-2p	=	8.944 (0.024)	-----						
136ND 136			8.948	(23+)	136	0.062	PS 28		
136ND 137			9.020	(23-)	137				
136ND 138			9.048	(23-)	138				
136ND 139			9.165	(24)	139				
136ND 140			9.172	(24+)	140				

136ND 141			9.179	(24+)	141				
136ND 142			9.197	(23-)	142				
136ND 143			9.342	(23-)	143				
136ND 144			9.492	(24+)	144	0.042	PS 21		
136ND 145			9.557	(24-)	145				
136ND 146			9.569	(24-)	146				
136ND 147			9.618	(25)	147				
136ND 148			9.746	(25+)	148				
136ND 149			9.894	(25-)	149				

S-p = 5.552 (0.017)-----
S-n = 11.057 (0.022)-----
S-2p = 8.944 (0.024)-----
S-2n = 19.696 (0.017)-----
S-alpha= -0.844 (0.024)-----

S+p = -2.162 (0.018)
S+n = -8.456 (0.017)
S+2p = -6.876 (0.017)
S+2n = -18.960 (0.017)
S+alpha = 1.318 (0.017)

gap p = 3.390 (0.024)
gap n = 2.601 (0.028)
gap 2p = 2.068 (0.029)
gap 2n = 0.735 (0.024)
gap alpha = 0.474 (0.029)