

^{30}P $Z = 15$ $N = 15$ [link to full NNDC output](#)

Based on ENSDF from Dec 2018, and mass evaluation from 2016

BE = 250.605 (0.000) MeV

Qbeta+ = 4.232 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
30P	1 0.000	1+			1 2.498 M 4
30P	2 0.677 1	0+			2 96 FS 10
30P	3 0.709	1+			3 45 PS 4
30P	4 1.454	2+			4 4.5 PS 5
30P	5 1.973	3+			5 1.9 PS 6
30P	6			2.539 (3+)	6 151 FS 14
30P	7 2.724	2+			7 112 FS 10
30P	8			2.839 (3+)	8 573 FS 125
30P	9 2.937 1	2+			9 48 FS 3
30P	10 3.019	1+			10 2 FS 1
30P	11			3.304 (1+)	11
30P	12			3.734 (1+)	12 26 FS 5
30P	13 3.836	2+			13 32 FS 6
30P	14 3.929	3+			14 79 FS 14
30P	15		4.144 2-		15 30 FS 3
30P	16 4.183 1	2+			16 2.2 FS 6
30P	17		4.232 4-		17 1.3 PS 7
30P	18 4.299	4+			18 100 FS 18
30P	19 4.344	5+			19 123 FS 10
30P	20 4.423	2+			20 40 FS 6
30P	21 4.468 1	0+			21 1.9 FS 3
30P	22 4.502 1	1+			22 4.4 FS 15
30P	23		4.626 3-		23 171 FS 14
30P	24 4.736	3+			24 51 FS 7
30P	25			4.926 (3-,5-)	25 260 PS 35
30P	26			4.937 1	26 4.6 FS 14
30P	27			4.941 (1+)	27 4.3 FS 11
30P	28			4.951	28
30P	29			5.027 5-, (4-,6-)	29
30P	30 5.207 0	3+			30 15 FS 4
30P	31			5.230	31
30P	32			5.411 (2-)	32
30P	33			5.506 0 (1+)	33 3.8 FS 9
30P	34			5.509 1 (2,3)	34 10 FS 5
30P	35 5.576 1	2+			35 6 FS 1
S-p	= 5.595 (0.000)				
30P	36 5.597	4+			36

30P 37		5.701 0	1+					37	11 FS	3
30P 38						5.715	(5,7)+	38		
30P 39						5.788	(3 TO 5)+	39		
30P 40						5.808	(3,5)+	40		

30P 41						5.896	(2-)	41		
30P 42						5.908	(2-,1-)	42		
30P 43						5.934	(3+)	43		
30P 44						5.993	(0,1,2)-	44		
30P 45						5.997	(1+)	45		
30P 46						6.006 0,1	(3+)	46		
30P 47						6.051 1	(3,4,5)+	47		
30P 48		6.094 1	3-					48	4.4 FS	10
30P 49						6.178	(5,6,7)+	49		
30P 50						6.229	(3,5)+	50		

30P 51						6.269 1	(2-)	51		
30P 52						6.295		52		
30P 53		6.299 0	3+					53		
30P 54						6.354	(4,5,6)-	54		
30P 55						6.470	(5+,6-)	55		
30P 56						6.482 0	(1+)	56		
30P 57						6.521 0	(1+,2+)	57		
30P 58						6.598 1	(3,4+,5+)	58		
30P 59						6.648 1		59		
30P 60						6.668 0	(2-,3+)	60		

30P 61						6.788		61		
30P 62		6.854 0	1+					62	25 EV	
30P 63		6.873 0	3+					63	3 EV	
30P 64						6.877	(2-)	64	3.1 KEV	
30P 65					6.921 0	1-		65	5.4 KEV	
30P 66						6.978 0	(3+,4+)	66		
30P 67						6.981	(5 TO 7)+	67		
30P 68					7.015 0	2-		68	0.70 KEV	
30P 69						7.045 0	(2,3,4)-	69	20 EV	
30P 70					7.049 1	4-		70	45 EV	

30P 71						7.119 0	(1+,2+,3+)	71		
30P 72					7.178 1	1-		72	15 KEV	
30P 73						7.202	(6+,7+)	73	9.4 PS	12
30P 74						7.203 0	(2+)	74	30 EV	
30P 75						7.207 1	(0+)	75	50 EV	
30P 76					7.223 1	2-		76	4.5 KEV	
30P 77		7.282 0	3+					77	1 EV	
30P 78		7.283 1	2+					78	7 EV	
30P 79						7.305 0	(2-)	79	60 EV	
30P 80						7.306 0	(2-)	80	45 EV	

30P 81						7.322 1	(1-)	81	16.5 KEV	

30P 82				7.347	(5,6,7)+	82
30P 83				7.370		83
30P 84				7.383 1	(1 TO 3+)	84
30P 85				7.472		85
30P 86				7.493 1	(1+)	86 3.5 KEV
30P 87				7.561	(3+)	87 40 EV
30P 88				7.563 1	(2+)	88 25 EV
30P 89				7.580 0	(2-)	89 0.17 KEV
30P 90				7.605 1	(1+,2+)	90 0.26 KEV

30P 91				7.636 1	(3+)	91 3 EV LT
30P 92				7.644 0	(3+)	92 65 EV
30P 93				7.647 1	(4,5,6)-	93
30P 94				7.688 0	(3+,4-)	94 3 EV LT
30P 95				7.742	(1-)	95 52 KEV
30P 96				7.749 0	(1+)	96 0.53 KEV
30P 97				7.753 1	(3+,4+)	97 3 EV LT
30P 98				7.759 1	(3+)	98 4 EV LT
30P 99				7.786	(2-,4-)	99 17 EV
30P 100				7.803	(2,3,4)-	100 10 EV

30P 101				7.826 0	(2-)	101 50 EV
30P 102				7.874	(4-)	102 20 EV
30P 103				7.884	(4+)	103
30P 104				7.892	(2-)	104 70 KEV
30P 105	7.921 0	2+				105 0.38 KEV
30P 106				7.922 0	(3+)	106
30P 107				7.922	(4+)	107
30P 108				7.932 1	(0+)	108 28 KEV
30P 109				7.997 1	(1+)	109 1.0 KEV
30P 110				8.001	(1-)	110 4.8 KEV

30P 111				8.007 1	(2+)	111 0.65 KEV
30P 112				8.014 0	(2+)	112 0.16 KEV
30P 113				8.032	(2-,1-)	113 50 EV
30P 114				8.053		114
30P 115	8.096	1+				115 7.4 KEV
30P 116	8.107	2+				116 0.28 KEV
30P 117				8.151		117
30P 118			8.166	1-		118 1.7 KEV
30P 119	8.181	1+				119 18 KEV
30P 120			8.187	3-		120 0.70 KEV

30P 121			8.206	4-		121 40 EV
30P 122	8.207	0+				122 13 KEV
30P 123			8.209	0-		123 30 KEV
30P 124				8.242	(4,5,6)-	124
30P 125				8.271		125
30P 126			8.276	2-		126 60 EV
30P 127	8.278 1	2+				127 1.3 KEV

30P 128		8.319	1+						128	6.0 KEV
30P 129					8.350	4-			129	0.17 KEV
30P 130								8.351	130	

30P 131					8.352	2-			131	2.4 KEV
30P 132		8.386	3+						132	0.10 KEV
30P 133		8.398	2+						133	0.24 KEV
30P 134					8.409	3-			134	65 EV
30P 135								8.426	135	
30P 136		8.432	2+						136	1.35 KEV
30P 137		8.451	1+						137	2.3 KEV
30P 138					8.484	4-			138	0.13 KEV
30P 139					8.497	1-			139	37 KEV
30P 140					8.519	0-			140	200 KEV

30P 141								8.526	(3,4,5)+	141
30P 142								8.530		142
30P 143					8.557	1-			143	25 KEV
30P 144								8.570	144	
30P 145		8.582	2+						145	0.44 KEV
30P 146		8.619	2+						146	0.50 KEV
30P 147		8.621	1+						147	4.0 KEV
30P 148					8.632	4-			148	0.45 KEV
30P 149								8.642	149	0.63 KEV
30P 150		8.647	3+						150	70 EV

30P 151					8.662	2-			151	3.95 KEV
30P 152					8.669	2-			152	1.5 KEV
30P 153		8.708	1+						153	28 KEV
30P 154					8.730	4-			154	0.30 KEV
30P 155								8.755	(1+)	155
30P 156								8.820		156

S-p = 5.595 (0.000)-----
S-n = 11.319 (0.000)-----
S-2p = 17.928 (0.000)-----
S-2n = 29.196 (0.001)-----
S-alpha= 10.416 (0.000)-----

S+p = -6.131 (0.000)
S+n = -12.311 (0.000)
S+2p = -7.712 (0.001)
S+2n = -20.247 (0.000)
S+alpha = -6.664 (0.000)

gap p = -0.536 (0.000)
gap n = -0.992 (0.000)
gap 2p = 10.216 (0.001)
gap 2n = 8.949 (0.001)

gap alpha = 3.751 (0.000)