

$^{32}\text{P}$        $Z = 15$        $N = 17$       adopted link      ENSDF link

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

BE = 270.852 ( 0.000) MeV

Qbeta- = 1.711 ( 0.000) MeV

	Energy T	J+	J-	J-other	T1/2
32P	1   0.000	1+			1 14.268 D 5
32P	2   0.078	2+			2 278 PS 9
32P	3   0.513	0+			3 1.83 PS 8
32P	4   1.149	1+			4 183 FS 12
32P	5   1.323	2+			5 338 FS 17
32P	6			1.510	6
32P	7   1.755	3+			7 430 FS 28
32P	8   2.177	3+			8 53 FS 10
32P	9   2.218	2+			9 166 FS 17
32P	10   2.230	1+			10 35 FS LT
32P	11			2.313	11
32P	12			2.579	12
32P	13   2.658	2+			13 8.3 FS 28
32P	14   2.740	1+			14 14 FS 5
32P	15   3.005	3+			15 60 FS 3
32P	16			3.074	16
32P	17   3.149	4+			17 345 FS 25
32P	18		3.264	2-	18 90 FS 20
32P	19		3.319	3-	19 250 FS 10
32P	20			3.444 (1,2+)	20 26 FS 10
32P	21		3.445	4-	21 268 FS 31
32P	22			3.792 (1+)	22 4.0 FS 14
32P	23			3.797 (3+)	23 49 FS 26
32P	24   3.875	2+			24
32P	25   3.881	2+			25 14 FS LT
32P	26			3.989 (3)+	26 10 FS LT
32P	27		4.009	2-	27 130 FS 28
32P	28   4.035	4+			28 24 FS 17
32P	29		4.036	1-	29 1.5 FS 6
32P	30		4.149	3-	30 19 FS 7
32P	31   4.204	1+			31 2.9 FS 8
32P	32		4.275	5-	32 0.54 PS 8
32P	33   4.312	3+			33
32P	34		4.410	0-	34 13.2 FS 21
32P	35   4.548	1+			35
32P	36   4.555	2+			36
32P	37			4.613 (3)+	37

32P	38					4.620	(0+)	38			
32P	39			4.661	2-			39	2.8	FS	5
32P	40					4.697	(3,5)+	40			
-----											
32P	41	4.711	1+					41			
32P	42	4.743	5+					42			
32P	43					4.850	(3+,4-,5+)	43			
32P	44			4.877	1-			44	4.0	FS	8
32P	45					4.941	1-,2+,3-	45			
32P	46	5.012	2+					46			
32P	47	5.072	0+					47	104	FS	34
32P	48	5.081	2+					48			
32P	49					5.129		49			
32P	50					5.234	(2-)	50			
-----											
32P	51					5.253		51	59	FS	LT
32P	52					5.308	(1,2)+	52			
32P	53					5.326		53			
32P	54			5.350	2-			54	5.3	FS	6
32P	55					5.396		55			
32P	56					5.498		56			
32P	57			5.509	1-			57	7.1	FS	10
32P	58					5.554		58			
32P	59					5.588		59			
32P	60					5.663		60			
-----											
32P	61	5.674	1+					61			
32P	62					5.701	(1,2)-	62			
32P	63					5.725	(4-)	63			
32P	64			5.779	1-			64	1.0	FS	5
32P	65					5.815	(3,4)-	65			
32P	66					5.830		66			
32P	67					5.860	(2-)	67			
32P	68	5.890	2+					68			
32P	69					5.969		69			
32P	70					5.972		70			
-----											
32P	71					5.989		71			
32P	72					6.026	(2,3,4)-	72			
32P	73			6.062	1-			73	1.0	FS	4
32P	74					6.105	(3)+	74			
32P	75					6.147	(1,2,3)+	75			
32P	76					6.160		76			
32P	77			6.196	1-			77	3.5	FS	LT
32P	78					6.279		78			
32P	79					6.298		79			
32P	80					6.311		80			
-----											
32P	81					6.333	(0,1)+	81	3.5	FS	LT
32P	82					6.378		82			

32P	83				6.396		83
32P	84				6.413		84
32P	85		6.434	5+			85
32P	86				6.477	(4-)	86
32P	87				6.511	(1+,2+)	87
32P	88				6.531		88
32P	89				6.558	(0+ TO 3+)	89
32P	90				6.582	(0+ TO 3+)	90
-----							
32P	91				6.682		91
32P	92				6.685		92
32P	93				6.705		93
32P	94				6.708		94
32P	95				6.734		95
32P	96				6.738		96
32P	97				6.784	(0+,1,2,3+)	97
32P	98				6.858		98
32P	99				6.997		99
32P	100		7.010	1+			100
-----							
32P	101				7.067		101
32P	102				7.190	(4+)	102
32P	103				7.340		103
32P	104				7.343		104
32P	105				7.393		105
32P	106				7.655		106
32P	107				7.679		107
32P	108				7.767		108
32P	109				7.807	(2,3,4)-	109
32P	110				7.810	(4-)	110
-----							
32P	111				7.852	(2,3,4)-	111
32P	112				7.875	(3,4,5)-	112
32P	113				7.925		113
-----							
S-n	=	7.936	(0.000)	-----	-----	-----	-----
32P	114				7.936	0+,1+	114
32P	115				7.940		115
32P	116		7.958	5+			116
32P	117				7.962		117 0.003 KEV LT
32P	118				7.991		118
32P	119				8.017	(0-)	119 0.03 KEV LT
32P	120				8.025		120 0.03 KEV LT
-----							
32P	121				8.037	(1,2)+	121 0.04 KEV LT
32P	122				8.040		122 0.04 KEV LT
32P	123				8.045		123 0.04 KEV LT
32P	124				8.079	(0-)	124 0.06 KEV LT
32P	125				8.083		125
32P	126				8.087	(1-)	126 0.06 KEV LT
32P	127		8.088	1+			127 2.03 KEV 14

32P 128		8.090	5+				128			
32P 129						8.092	(0+)	129	1.7 KEV	6
32P 130						8.099		130		
-----										
32P 131						8.113	(1+)	131	1.3 KEV	2
32P 132						8.149	(1+)	132	0.91 KEV	7
32P 133						8.153	(1-)	133	0.1 KEV	LT
32P 134						8.157	(1-)	134	0.65 KEV	7
32P 135						8.158	(2,3,4)-	135		
32P 136						8.166	(1+)	136	0.41 KEV	3
32P 137						8.182	(1+)	137	0.21 KEV	2
32P 138						8.196	(1-)	138	0.31 KEV	3
32P 139						8.202	(1-)	139	0.13 KEV	LT
32P 140						8.203	(2,3,4)-	140		
-----										
32P 141						8.241	(0-)	141	0.15 KEV	LT
32P 142						8.247		142		
32P 143						8.279	(1-)	143	0.18 KEV	LT
32P 144						8.285	(0+)	144	1.2 KEV	3
32P 145						8.291	(1+)	145	25 KEV	
32P 146						8.292	(1-)	146	0.46 KEV	8
32P 147						8.300	(2-)	147	0.64 KEV	10
32P 148						8.330	(2-)	148	0.2 KEV	LT
32P 149						8.337	(1+)	149	1.2 KEV	2
32P 150						8.354	(2-)	150	0.58 KEV	7
-----										
32P 151						8.357	(1-)	151	0.2 KEV	LT
32P 152						8.358	(1+)	152	20 KEV	LT
32P 153						8.383	(1-)	153	1.3 KEV	3
32P 154						8.406	(1-)	154	1.3 KEV	3
32P 155						8.414	(2-)	155	0.3 KEV	LT
32P 156		8.540	5+					156		
S-p	=	8.645	( 0.000)	-----						
32P 157						8.815		157	8.3 KEV	7
32P 158						9.226		158	9.8 KEV	6
-----										
S-p	=	8.645	( 0.000)	-----						
S-n	=	7.936	( 0.000)	-----						
S-2p	=	23.019	( 0.002)	-----						
S-2n	=	20.247	( 0.000)	-----						
S-alpha	=	9.879	( 0.000)	-----						
-----										
S+p	=	-9.570	( 0.000)							
S+n	=	-10.104	( 0.001)							
S+2p	=	-14.713	( 0.000)							
S+2n	=	-16.386	( 0.001)							
S+alpha	=	-7.642	( 0.000)							
-----										
gap p	=	-0.925	( 0.000)							

gap n = -2.168 ( 0.001)  
gap 2p = 8.306 ( 0.002)  
gap 2n = 3.860 ( 0.001)  
gap alpha = 2.237 ( 0.000)