

$^{31}\text{S}$        $Z = 16$        $N = 15$       [link to full NNDC output](#)

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

BE = 256.736 ( 0.000) MeV

Qbeta+ = 5.398 ( 0.000) MeV

	Energy T	J+	J-	J-other	T1/2
31S	1	0.000	1/2+		1 2.5534 S 18
31S	2	1.249	3/2+		2 0.50 PS 12
31S	3	2.234	5/2+		3 222 FS 55
31S	4	3.077	1/2+		4
31S	5			3.285 (5/2)+	5
31S	6			3.351 (7/2)+	6
31S	7	3.436	3/2+		7
31S	8			4.080 3/2+,5/2+	8
31S	9			4.209 (1/2,3/2,5/2)+	9
31S	10			4.451 (7/2)-	10 0.71 PS 15
31S	11	4.521	3/2+		11
31S	12			4.584 (7/2)+	12
31S	13			4.602	13
31S	14			4.707 3/2+,5/2+	14
31S	15			4.720 (1/2,3/2,5/2)+	15
31S	16			4.867 (1/2-,3/2-)	16
31S	17			4.971 (3/2)-	17
31S	18			4.988	18
31S	19			5.022	19
31S	20	5.157	1/2+		20
31S	21			5.301 (9/2+)	21
31S	22			5.331	22
31S	23			5.408	23
31S	24			5.439	24
31S	25			5.518 3/2+,5/2+	25
31S	26			5.678	26
31S	27			5.775 3/2+,5/2+	27
31S	28			5.786 (1/2+,3/2+,5/2+)	28
31S	29			5.824	29
31S	30			5.896 3/2+,5/2+	30
31S	31			5.959 3/2+,5/2+	31
31S	32			5.978 (9/2+)	32
S-p	=	6.131 ( 0.000)			
31S	33			6.139 (7/2+)	33
31S	34			6.160 (5/2-,7/2+)	34
31S	35	6.255	1/2 1/2+		35
31S	36	6.281	3/2 3/2+		36

31S	37				6.327	(3/2)	37
31S	38				6.357	(5/2-)	38
31S	39				6.377	(9/2-)	39
31S	40				6.392	(5/2+)	40
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31S	41				6.394	(11/2+)	41
31S	42				6.401		42
31S	43				6.421	(1/2+, 3/2+, 5/2+)	43)
31S	44				6.542	(3/2-)	44
31S	45				6.583	(7/2)	45
31S	46				6.636	(9/2-)	46
31S	47				6.720	(5/2)	47
31S	48	6.749	3/2+				48
31S	49				6.796		49
31S	50				6.833	(11/2-)	50
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31S	51				6.836		51
31S	52				6.848		52
31S	53				6.872	(11/2)	53
31S	54				6.937	(1/2+, 3/2+, 5/2+)	54)
31S	55				6.961		55
31S	56	6.975	1/2+				56
31S	57				7.010		57
31S	58				7.037	3/2+, 5/2+	58
31S	59				7.052		59
31S	60				7.140		60
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31S	61				7.156	3/2+, 5/2+	61
31S	62				7.196		62
31S	63				7.280		63
31S	64				7.304	(11/2+)	64
31S	65				7.355	(1/2+, 3/2+, 5/2+)	65)
31S	66				7.417		66
31S	67				7.469		67
31S	68				7.501		68
31S	69				7.517	1/2+&3/2+, 5/2+	69
31S	70				7.585		70
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31S	71				7.632	(1/2+, 3/2+, 5/2+)	71)
31S	72				7.644	(1/2+, 3/2+, 5/2+)	72)
31S	73				7.699	(1/2+, 3/2+, 5/2+)	73)
31S	74				7.724	(1/2-, 3/2, 5/2)	74
31S	75				7.744		75
31S	76				7.774	(1/2+, 3/2+, 5/2+)	76
31S	77				7.824		77
31S	78				7.859		78
31S	79				7.894	(1/2+, 3/2+, 5/2)	79+)
31S	80	7.907	1/2+				80
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31S	81				7.932		81

31S	82				7.945		82
31S	83				7.973		83
31S	84				8.015		84
31S	85				8.022	(1/2+,3/2+,5/2+	85)
31S	86				8.030		86
31S	87				8.045	1/2+&3/2+,5/2+	87
31S	88				8.060		88
31S	89				8.071		89
31S	90				8.109	(1/2+,3/2+,5/2+	90)
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31S	91				8.131		91
31S	92				8.178		92
31S	93				8.209		93
31S	94				8.229		94
31S	95				8.268	(1/2+,3/2+,5/2+	95)
31S	96				8.330		96
31S	97				8.382		97
31S	98				8.426	(1/2+,3/2+,5/2+	98)
31S	99				8.461	(13/2-)	99
31S	100		8.498	1/2+			100
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31S	101				8.562		101
31S	102				8.702	(1/2+,3/2+,5/2+	102)
31S	103				8.789	3/2+,5/2+	103
31S	104				8.813		104
31S	105				8.878	(1/2+,3/2+,5/2+)	105
31S	106				8.969		106
31S	107				9.004		107
31S	108				9.050	(1/2+,3/2+,5/2+	108)
S-alpha=	9.083	(	0.000)	-----			
31S	109				9.155	(13/2+)	109
31S	110				9.207		110
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31S	111				9.226		111
31S	112				9.332		112
31S	113				9.423	3/2+,5/2+	113
31S	114				9.606		114
31S	115				9.853		115
31S	116				10.146	(13/2-)	116
31S	117				10.577		117
S-n	=	13.055	(	0.000)	-----		
S-2p	=	11.725	(	0.000)	-----		
31S	118				13.300		118
-----							
S-p	=	6.131	(	0.000)	-----		
S-n	=	13.055	(	0.000)	-----		
S-2p	=	11.725	(	0.000)	-----		
S-2n	=	32.029	(	0.050)	-----		
S-alpha=	9.083	(	0.000)	-----			

S+p = -1.581 ( 0.001)  
S+n = -15.044 ( 0.000)  
S+2p = -4.920 ( 0.000)  
S+2n = -23.686 ( 0.000)  
S+alpha = -6.430 ( 0.001)

gap p = 4.550 ( 0.001)  
gap n = -1.990 ( 0.000)  
gap 2p = 6.806 ( 0.001)  
gap 2n = 8.343 ( 0.050)  
gap alpha = 2.653 ( 0.001)