

$^{166}\text{Yb}$        $Z = 70$        $N = 96$       [link to full NNDC output](#)

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

BE = 1346.670 ( 0.007) MeV

Qbeta+ = 0.292 ( 0.014) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-2.314	( 0.007)	-----		
166YB 1	0.000	0+			1 56.7 H 1
166YB 2	0.102	2+			2 1.24 NS 6
166YB 3	0.330	4+			3 52.9 PS 17
166YB 4	0.668	6+			4 7.8 PS 3
166YB 5				0.932 (2)+	5
166YB 6				1.039 (3)+	6
166YB 7				1.043 (0+)	7
166YB 8	1.098	8+			8 2.14 PS 24
166YB 9				1.144 (2+)	9
166YB 10				1.163 (4)+	10
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166YB 11				1.315	11
166YB 12				1.328 (5)+	12
166YB 13				1.342 (4+)	13
166YB 14			1.359 1-		14
166YB 15				1.386 (2+,3,4+)	15
166YB 16				1.419 (3)-	16
166YB 17				1.451	17
166YB 18				1.482 (6)+	18
166YB 19				1.503 (2-)	19
166YB 20				1.505 (5)-	20
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166YB 21			1.530 1-		21
166YB 22				1.571 (5)-	22
166YB 23				1.580 (2+)	23
166YB 24	1.606	10+			24 1.0 PS 5
166YB 25				1.607 (2+,3,4+)	25
166YB 26	1.608	6+			26
166YB 27				1.617 (4-)	27
166YB 28				1.685 (2+,3,4+)	28
166YB 29				1.705 (7)+	29
166YB 30				1.725 (6+,7+)	30
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166YB 31				1.744 (3+,4+)	31
166YB 32				1.790 (5-)	32
166YB 33				1.812 (8+)	33
166YB 34				1.818 (4+,5,6+)	34
166YB 35				1.833 (7)-	35
166YB 36				1.835 (6-)	36

166YB 37		1.853	8+					37			
166YB 38						1.865	(6)-	38			
166YB 39						1.923	(1,2+)	39			
166YB 40						1.941	(9)-	40			
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166YB 41						1.957	(5,6)+	41			
166YB 42					1.959	7-		42			
166YB 43						2.016	(4+,5,6+)	43			
166YB 44						2.029	(3-,4-)	44			
166YB 45		2.030	8+					45			
166YB 46						2.072	(8-)	46			
166YB 47					2.099	1-		47			
166YB 48						2.137	(8-)	48			
166YB 49						2.143	(10)+	49			
166YB 50						2.150	(9)+	50			
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166YB 51						2.166	(6,7)+	51			
166YB 52		2.176	12+					52	0.64	PS	33
166YB 53						2.210	(9)-	53			
166YB 54		2.215	10+					54			
166YB 55						2.233	6-,7-	55	10	NS	LT
166YB 56						2.320	(10+)	56			
166YB 57						2.361	(10-)	57			
166YB 58						2.418	(11)-	58			
166YB 59					2.426	1-		59			
166YB 60						2.491	(10-)	60			
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166YB 61		2.531	12+					61			
166YB 62						2.610	(12+)	62			
166YB 63						2.647	(11)+	63			
166YB 64						2.729	(12-)	64			
166YB 65		2.780	14+					65	0.51	PS	30
166YB 66						2.863	(13)-	66			
166YB 67						2.892	(12-)	67			
166YB 68		2.898	14+					68			
166YB 69						3.167	(14-)	69			
166YB 70						3.197	(13+)	70			
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166YB 71		3.274	16+					71	1.14	PS	27
166YB 72						3.351	(14-)	72			
166YB 73						3.354	(15-)	73			
166YB 74		3.490	16+					74			
166YB 75						3.666	(16-)	75			
166YB 76		3.782	18+					76	0.82	PS	10
166YB 77						3.878	(16-)	77			
166YB 78						3.892	(17)-	78			
166YB 79						4.190	(18+)	79			
166YB 80						4.219	(18-)	80			
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166YB 81		4.371	20+					81	0.41	PS	3

166YB 82						4.471	(18-)	82	
166YB 83						4.479	(19)-	83	
166YB 84						4.819	(20-)	84	
166YB 85		4.923	20+					85	
166YB 86		5.037	22+					86 0.201 PS 21	
166YB 87						5.109	(21-)	87	
166YB 88						5.119	(20-)	88	
166YB 89						5.469	(22-)	89	
166YB 90						5.650	(22+)	90	
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166YB 91		5.775	24+					91 0.125 PS 14	
166YB 92						5.783	(23-)	92	
166YB 93						5.814	(22-)	93	
S-p	=	5.955	( 0.007)	-----					
166YB 94						6.173	(24-)	94	
166YB 95						6.378	(24+)	95	
166YB 96						6.508	(25-)	96	
166YB 97						6.552	(24-)	97	
166YB 98		6.582	26+					98 0.083 PS 7	
166YB 99						6.940	(26-)	99	
166YB 100						7.295	(27-)	100	
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166YB 101						7.335	(26-)	101	
166YB 102		7.452	28+					102 0.069 PS 7	
166YB 103						7.774	(28-)	103	
166YB 104						8.149	(29-)	104	
166YB 105		8.387	30+					105 0.055 PS 7	
166YB 106						8.677	(30-)	106	
166YB 107						9.071	(31-)	107	
S-n	=	9.372	( 0.028)	-----					
166YB 108		9.386	32+					108 0.042 PS 7	
166YB 109						9.649	(32-)	109	
166YB 110						10.057	(33-)	110	
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S-2p	=	10.231	( 0.007)	-----					
166YB 111		10.446	34+					111 0.035 PS 7	
166YB 112						11.102	(35-)	112	
166YB 113						11.558	(36+)	113	
166YB 114						12.186	(37-)	114	
166YB 115						12.716	(38+)	115	
166YB 116						0.0+X		116	
166YB 117						162.6+X		117	
166YB 118						334.9+X		118	
166YB 119						524.9+X		119	
166YB 120						735.5+X		120	
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166YB 121						966.4+X		121	
166YB 122						1217.0+X		122	
166YB 123						1486.2+X		123	
166YB 124						1772.7+X		124	

166YB 125		2075.2+X	125
166YB 126		2392.6+X	126
166YB 127		2722.6+X	127
166YB 128		3064.1+X	128
166YB 129		3416.6+X	129
166YB 130		3778.4+X	130
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166YB 131		4149.6+X	131
166YB 132		4531.2+X	132
166YB 133		4921.6+X	133

S-p = 5.955 ( 0.007)-----  
 S-n = 9.372 ( 0.028)-----  
 S-2p = 10.231 ( 0.007)-----  
 S-2n = 16.721 ( 0.017)-----  
 S-alpha= -2.314 ( 0.007)-----

S+p = -3.194 ( 0.033)  
 S+n = -7.066 ( 0.008)  
 S+2p = -8.343 ( 0.029)  
 S+2n = -16.129 ( 0.007)  
 S+alpha = 2.917 ( 0.029)

gap p = 2.761 ( 0.033)  
 gap n = 2.306 ( 0.029)  
 gap 2p = 1.888 ( 0.030)  
 gap 2n = 0.593 ( 0.018)  
 gap alpha = 0.604 ( 0.030)