

Atomic Weights and Isotopic Compositions for Hydrogen

	<u>Isotope</u>		<u>Relative Atomic Mass</u>	<u>Isotopic Composition</u>	<u>Standard Atomic Weight</u>	<u>Notes</u>
1/2+	1 H	1	1.007 825 032 23(9)	0.999 885(70)	[1.007 84, 1.008 11]	m
1+	D	2	2.014 101 778 12(12)	0.000 115(70)		
1/2+	T	3	3.016 049 2779(24)			
		4	4.026 43(11)			
		5	5.035 311(96)			
		6	6.044 96(27)			
		7	7.0527(11#)			

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Atomic Weights and Isotopic Compositions for Helium

	<u>Isotope</u>		<u>Relative Atomic Mass</u>	<u>Isotopic Composition</u>	<u>Standard Atomic Weight</u>	<u>Notes</u>
1/2+	2 He	3	3.016 029 3201(25)	0.000 001 34(3)	4.002 602(2)	g,r
0+		4	4.002 603 254 13(6)	0.999 998 66(3)		
		5	5.012 057(21)			
		6	6.018 885 891(57)			
		7	7.027 9907(81)			
		8	8.033 934 390(95)			
		9	9.043 946(50)			
		10	10.052 79(11)			

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Atomic Weights and Isotopic Compositions for Lithium

<u>Isotope</u>	<u>Relative Atomic Mass</u>	<u>Isotopic Composition</u>	<u>Standard Atomic Weight</u>	<u>Notes</u>
3 Li 3	3.0308(21#)		[6.938, 6.997]	m
4	4.027 19(23)			
5	5.012 538(54)			
1+ 6	6.015 122 8874(16)	0.0759(4)		
3/2- 7	7.016 003 4366(45)	0.9241(4)		
2+ 8	8.022 486 246(50)			
9	9.026 790 19(20)			
10	10.035 483(14)			
11	11.043 723 58(66)			
12	12.052 517(16)			
13	13.062 63(38)			

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Atomic Weights and Isotopic Compositions for Beryllium

<u>Isotope</u>	<u>Relative Atomic Mass</u>	<u>Isotopic Composition</u>	<u>Standard Atomic Weight</u>	<u>Notes</u>
4 Be	5	5.0399(22#)		
	6	6.019 7264(58)		
3/2 -	7	7.016 928 717(76)		
0+	8	8.005 305 102(37)		
3/2 -	9	9.012 183 065(82)	1	9.012 1831(5)
0+	10	10.013 534 695(86)		
1/2+	11	11.021 661 08(26)		
	12	12.026 9221(20)		
	13	13.036 135(11)		
	14	14.042 89(14)		
	15	15.053 42(43#)		
	16	16.061 67(18)		

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Atomic Weights and Isotopic Compositions for Boron

<u>Isotope</u>	<u>Relative Atomic Mass</u>	<u>Isotopic Composition</u>	<u>Standard Atomic Weight</u>	<u>Notes</u>
5 B 6	6.0508(22#)		[10.806, 10.821]	m
7	7.029 712(27)			
2+ 8	8.024 6073(11)			
3/2- 9	9.013 329 65(97)			
3+ 10	10.012 936 95(41)	0.199(7)		
3/2- 11	11.009 305 36(45)	0.801(7)		
1+ 12	12.014 3527(14)			
3/2 13	13.017 7802(12)			
14	14.025 404(23)			
15	15.031 088(23)			
16	16.039 842(26)			
17	17.046 99(18)			
18	18.055 66(18)			
19	19.063 10(43#)			
20	20.072 07(75#)			
21	21.081 29(97#)			

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Atomic Weights and Isotopic Compositions for Carbon

<u>Isotope</u>	<u>Relative Atomic Mass</u>	<u>Isotopic Composition</u>	<u>Standard Atomic Weight</u>	<u>Notes</u>
6 C 8	8.037 643(20)		[12.0096, 12.0116]	
3/2- 9	9.031 0372(23)			
0+ 10	10.016 853 31(42)			
3/2- 11	11.011 4336(10)			
0+ 12	12.0000000(00)	0.9893(8)		
1/2- 13	13.003 354 835 07(23)	0.0107(8)		
0+ 14	14.003 241 9884(40)			
1/2+ 15	15.010 599 26(86)			
16	16.014 7013(38)			
17	17.022 577(19)			
18	18.026 751(32)			
19	19.034 80(11)			
20	20.040 32(26)			
21	21.049 00(43#)			
22	22.057 53(26)			
23	23.0689(11#)			

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Atomic Weights and Isotopic Compositions for Nitrogen

<u>Isotope</u>	<u>Relative Atomic Mass</u>	<u>Isotopic Composition</u>	<u>Standard Atomic Weight</u>	<u>Notes</u>
7 N 10	10.041 65(43)		[14.006 43, 14.007 28]	
11	11.026 091(50)			
1+ 12	12.018 6132(11)			
1/2- 13	13.005 738 61(29)			
1+ 14	14.003 074 004 43(20)	0.996 36(20)		
1/2- 15	15.000 108 898 88(64)	0.003 64(20)		
2- 16	16.006 1019(25)			
1/2- 17	17.008 449(16)			
1- 18	18.014 078(20)			
19	19.017 022(18)			
20	20.023 366(60)			
21	21.027 11(10)			
22	22.034 39(21)			
23	23.041 14(32#)			
24	24.050 39(43#)			
25	25.060 10(54#)			

Atomic Weights and Isotopic Compositions for Oxygen

<u>Isotope</u>	<u>Relative Atomic Mass</u>	<u>Isotopic Composition</u>	<u>Standard Atomic Weight</u>	<u>Notes</u>
8 O 12	12.034 262(26)		[15.999 03, 15.999 77]	
13	13.024 815(10)			
0+ 14	14.008 596 36(12)			
1/2- 15	15.003 065 62(53)			
0+ 16	15.994 914 619 57(17)	0.997 57(16)		
5/2+ 17	16.999 131 756 50(69)	0.000 38(1)		
0+ 18	17.999 159 612 86(76)	0.002 05(14)		
5/2+ 19	19.003 5780(28)			
0+ 20	20.004 075 35(95)			
21	21.008 655(13)			
22	22.009 966(61)			
23	23.015 696(97)			
24	24.019 86(12)			
25	25.029 36(12)			
26	26.037 29(17)			
27	27.047 72(54#)			
28	28.055 91(75#)			

Atomic Weights and Isotopic Compositions for Fluorine

<u>Isotope</u>	<u>Relative Atomic Mass</u>	<u>Isotopic Composition</u>	<u>Standard Atomic Weight</u>	<u>Notes</u>
9 F 14	14.034 315(44)			
15	15.018 043(67)			
16	16.011 4657(89)			
5/2+ 17	17.002 095 24(27)			
1+ 18	18.000 937 33(50)			
1/2+ 19	18.998 403 162 73(92)	1	18.998 403 163(6)	
2+ 20	19.999 981 252(31)			
5/2+ 21	20.999 9489(19)			
(3, 4)+ 22	22.002 999(13)	now (4)+		
(3/2, 5/2)+ 23	23.003 557(54)	now 5/2+		
24	24.008 115(78)			
25	25.012 199(81)			
26	26.020 038(83)			
27	27.026 44(20)			
28	28.035 34(21)			
29	29.042 54(54#)			
30	30.051 65(64#)			
31	31.059 71(56#)			

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9-Fluorine

Nuclide	weight or level energy		spin & parity	abundance	half-life	sig(J32)	sig(J33)	sig(J40)
F-nat	18.9984032	+ - 0.0000005						XXX
F- 16	16.011465724	+ - 0.000008932	0-		1.0E-19S			
F- 17	17.002095237	+ - 0.000000266	5/2+		64.49S 16			
F- 18	18.000937325	+ - 0.000000497	1+		109.77M 5			
F- 19	18.99840316273	+ - 0.0000000092	1/2+	100	stable	XXX	XXX	XXX
F- 20	19.999981252	+ - 0.000000031	2+		11.163S 8			
F- 21	20.999948890	+ - 0.000001932	5/2+		4.158S 20			
F- 22	22.002998814	+ - 0.000013310	(4+)		4.23S 4			
F- 23	23.003553000	+ - 0.000107500	5/2+		2.23S 13			
F- 24	24.008115485	+ - 0.000077598	(1,2,3)+		390MS 70			
F- 25	25.012199229	+ - 0.000081022	(5/2+)		50MS 6			
F- 26	26.020037768	+ - 0.000082963	1+		9.6MS 8			
F- 27	27.026441000	+ - 0.000204000	5/2+		5.2MS 3			
F- 29	29.042890	+ - 0.000620	5/2+		2.4MS 4			
F- 31	31.060059	+ - 0.000641			unknown			