

re Key

12 possible

Sturman

6 possible

Table 4.3

Natural Percent Abundance of Stable Isotopes of Some Elements

Name	Symbol	Natural percent abundance	Mass (amu)	Average atomic mass
Hydrogen	$^1_1\text{H}$	99.985 ?	1.0078	$.99985(1.0078) + .00015(2.0141) + 0 = 1.008 \text{ amu}$
	$^2_1\text{H}$	0.015 ?	2.0141	
	$^3_1\text{H}$	negligible ?	3.0160	
Helium	$^3_2\text{He}$	0.0001	3.0160	$.000001(3.0160) + .999999(4.0026) = 4.003 \text{ amu}$
	$^4_2\text{He}$	99.9999	4.0026	
Carbon	$^{12}_6\text{C}$	98.89	12.000	$.9889(12.000) + .0111(13.003) = 12.011 \text{ amu}$
	$^{13}_6\text{C}$	1.11	13.003	
Nitrogen	$^{14}_7\text{N}$	99.63	14.003	$.9963(14.003) + .0037(15.000) = 14.007 \text{ amu}$
	$^{15}_7\text{N}$	0.37	15.000	
Oxygen	$^{16}_8\text{O}$	99.759	15.995	$.99759(15.995) + .00037(16.995) + .00204(17.999) = 15.999 \text{ amu}$
	$^{17}_8\text{O}$	0.037	16.995	
	$^{18}_8\text{O}$	0.204	17.999	
Sulfur	$^{32}_{16}\text{S}$	95.002	31.972	$.95002(31.972) + .0076(32.971) + .0422(33.967) + .00014(35.967) = 32.063 \text{ amu}$
	$^{33}_{16}\text{S}$	0.76	32.971	
	$^{34}_{16}\text{S}$	4.22	33.967	
	$^{36}_{16}\text{S}$	0.014	35.967	
Chlorine	$^{35}_{17}\text{Cl}$	75.77	34.969	$.7577(34.969) + .2423(36.966) = 35.453 \text{ amu}$
	$^{37}_{17}\text{Cl}$	24.23	36.966	