

1. Abundance of the elements

element	Earth's crust (ppm)*	seawater (ppm)*	biomass (ppm)*†
O	456,000	857,000	630,000
Si	273,000	3	15,000
Al	83,600	0.01	500
Fe	62,200	0.01	1,000
Ca	46,600	400	40,000
Mg	27,640	1,350	4,000
Na	22,700	10,500	2,000
K	18,400	380	20,000
Ti	6,320	0.001	100
H	1,520	108,000	80,000
P	1,120	0.07	5,000
Mn	1,060	0.0002	100
F	554	1.3	50
Ba	390	0.03	300
Sr	384	8.1	200
S	340	885	5,000
C	180	28	200,000
V	136	0.002	—
Cl	131	19,000	2,000
Cr	122	0.00005	—
Ni	99	0.005	5
Zn	76	0.01	5
Cu	68	0.003	20
N	19	0.50	20,000
Pb	13	0.000005	< 0.2
B	9	4.6	100
Br	2.5	65	10
U	2.3	0.003	—
As	1.8	0.003	3
Hg	0.09	0.00003	—

* Parts per million on a weight-per-weight basis

† Based on assumption of 50% water content of global biomass stock