

**TABLE 1.4. Elemental Composition of *Macrocystis* (Marine Phaeophyte Macroalga) [From North, 1971, 1980; Jackson, 1977] and the Concentration of Available Sources of the Elements in Seawater [From Redfield, 1958; Sipos et al., 1980]**

Element	Seawater (mol m <sup>-3</sup> )	<i>Macrocystis</i> <sup>a</sup> (mol m <sup>3</sup> plant volume) <sup>-1</sup>	Seawater (mol per 1,000 mol C)	<i>Macrocystis</i> (mol per 1,000 mol C)
C	2,28 (CO <sub>2</sub> + HCO <sub>3</sub> <sup>-</sup> + CO <sub>3</sub> <sup>2-</sup> )	3,900	1,000	1,000
N	0.001-0.030 (NH <sub>4</sub> <sup>+</sup> + NO <sub>3</sub> <sup>-</sup> )	86-137	0.5-15	22-35
S	29 (SO <sub>4</sub> <sup>2-</sup> )	33-55	12,720	8.5-14.0
P	0.1-2.0 (HPO <sub>4</sub> <sup>2-</sup> )	11-20	0.05-1.0	2.8-5.2
K	10.6 (K <sup>+</sup> )	413	4,650	106
Na	482 (Na <sup>+</sup> )	659	211,400	169
Ca	10.6 (Ca <sup>2+</sup> )	35-62	4,650	9-16
Mg	55 (Mg <sup>2+</sup> )	4.7-35	24,080	1.2-9.0
Cl	<del>566</del> (Cl <sup>-</sup> )	<del>164-507</del>	<del>248,250</del>	<del>42-130</del>

<sup>a</sup>mol element in *Macrocystis* (m<sup>3</sup> plant volume)<sup>-1</sup> assumes 150 kg dw (m<sup>3</sup> plant volume)<sup>-1</sup>.