

Table 2. Intracellular ion concentrations ( $\text{mg} \cdot \text{ml}^{-1}$ ,  $\pm 95\%$  C.L.) of *Pyrocystis noctiluca* for cells grown under various light and nutrient conditions at  $23^\circ \pm 1^\circ\text{C}$ .

No. replicates	Nutrient/light ( $\mu\text{Ein} \cdot \text{m}^{-2} \cdot \text{s}^{-1}$ )	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	Mg <sup>2+</sup>	*NH <sub>4</sub> <sup>+</sup>	Cl <sup>-</sup>	*SO <sub>4</sub> <sup>2-</sup>	$\Sigma$ ions
11	Enriched/8 measured†	11.0 ± 0.6	0.3 ± 0.04	0.1 ± 0.01	0.3 ± 0.04	0.1	18.3 ± 0.9	0.3	30.3 ± 1.4
	isotonic	11.4	0.3	0.1	0.3	0.1	19.0	0.3	31.5
10	Enriched/60 measured†	11.1 ± 0.3	0.6 ± 0.2	0.1 ± 0.02	0.4 ± 0.04	0.1	18.9 ± 0.7	0.3	31.4 ± 0.9
	isotonic	11.2	0.6	0.1	0.4	0.1	19.1	0.3	31.8
5	Depleted/8 measured†	13.4 ± 1.5	0.4 ± 0.1	0.2 ± 0.06	0.6 ± 0.2	0	22.5 ± 1.4	0.5	37.6 ± 2.9
	isotonic	11.4	0.3	0.2	0.5	0	19.1	0.4	31.9
3	Depleted/60 measured†	13.2 ± 1.1	0.5 ± 0.04	0.2 ± 0.04	0.6 ± 0.2	0	23.1 ± 3.4	0.5	38.1 ± 4.7
	isotonic	11.1	0.4	0.2	0.5	0	19.4	0.4	32.0
4	seawater media	10.32 ± 0.03	0.36 ± 0.01	0.39 ± 0.01	1.27 ± 0.01		18.68 ± 0.02	2.6	33.62 ± 0.02

\* NH<sub>4</sub><sup>+</sup> and SO<sub>4</sub><sup>2-</sup> concentrations from Table 1 (see text).

† Measured concentrations calculated using measurements of protoplast volume and assuming 100% labeling of cell-free space by LiCl without uptake of LiCl into the cell.