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Phytoplankton calcification as an effective mechanism to prevent cellular calcium poisoning

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Table S1: Seawater chemistry of the first experiment. TA = Total Alkalinity. DIC = Dissolved Inorganic Carbon. Omega = Calcium carbonate saturation state.

Species	Ca (mmol/L)	TA (µmol/kg)	DIC (µmol/kg)	pH (total scale)	*p*CO2 (µatm)	Omega (calcite)
Chaetoceros sp.	1	2387±9	2042±1	8.18±0.01	300±7	1.0±0.1
Chaetoceros sp.	9	2376±4	2050±45	8.15±0.07	322±49	4.7±2.2
Chaetoceros sp.	19	2404±1	2074±20	8.16±0.03	319±20	6.4±1.0
Chaetoceros sp.	26	2391±3	2074±27	8.13±0.05	343±32	6.8±1.3
Chaetoceros sp.	34	2377±3	2061±8	8.12±0.02	385±8	7.2±0.4
Chaetoceros sp.	42	2397±7	2061±12	8.16±0.01	318±6	8.3±0.6

Species	Ca (mmol/L)	TA (µmol/kg)	DIC (µmol/kg)	pH (total scale)	*p*CO2 (µatm)	Omega (calcite)
H. akashiwo	1	2379±1	2083±34	8.10±0.06	365±43	0.9±1.6
H. akashiwo	9	2345±5	2021±21	8.14±0.04	355±19	4.5±1.0
H. akashiwo	19	2415±2	2116±9	8.09±0.02	409±11	5.6±0.5
H. akashiwo	26	2427±0	2113±11	8.13±0.02	343±14	6.9±0.5
H. akashiwo	34	2369±1	2129±4	7.99±0.01	481±10	5.6±0.2
H. akashiwo	42	2377±2	2156±4	7.94±0.04	576±34	5.5±0.2

Species	Ca (mmol/L)	TA (µmol/kg)	DIC (µmol/kg)	pH (total scale)	*p*CO2 (µatm)	Omega (calcite)
Cylindrotheca sp.	10	2061±5	1724±8	8.13±0.02	279±14	3.8±0.5
Cylindrotheca sp.	22	2089±11	1742±7	8.14±0	272±2	5.1±0.4
Cylindrotheca sp.	34	2098±10	1806±7	8.04±0.01	363±12	4.9±0.4
Cylindrotheca sp.	45	2131±3	1853±5	8.01±0.01	406±14	5.1±0.3
Cylindrotheca sp.	52	2133±0	1816±0	8.09±0	324±0	6.4±0

Species	Ca (mmol/L)	TA (µmol/kg)	DIC (µmol/kg)	pH (total scale)	*p*CO2 (µatm)	Omega (calcite)
E. huxleyi (naked)	1	2490±3	2112±2	8.23±0.01	274±4	1.1±0.1
E. huxleyi (naked)	9	2497±6	2100±8	8.25±0.01	256±3	5.9±0.4
E. huxleyi (naked)	19	2516±7	2165±5	8.19±0.02	300±11	7.1±0.3
E. huxleyi (naked)	26	2492±5	2062±4	8.30±0	227±2	9.6±0.2

E. huxleyi (naked)	34	2520±3	2133±8	8.23±0.01	286±6	9.3±0.4
E. huxleyi (naked)	42	2533±5	2100±4	8.30±0.01	227±3	11.2±0.2

Species	Ca (mmol/L)	TA (µmol/kg)	DIC (µmol/kg)	pH (total scale)	*p*CO2 (µatm)	Omega (calcite)
E. huxleyi (calcified)	1	2359±2	2114±13	8.01±0.02	454±24	0.7±0.6
E. huxleyi (calcified)	9	2322±2	2051±2	8.07±0	386±4	3.9±0.1
E. huxleyi (calcified)	21	2412±4	2141±2	8.06±0	415±2	5.3±0.1
E. huxleyi (calcified)	25	2421±8	2066±15	8.21±0.03	272±22	8.0±0.7
E. huxleyi (calcified)	40	2351±3	2105±5	8.02±0.02	447±15	5.9±0.2
E. huxleyi (calcified)	52	2350±10	2089±13	8.05±0.04	416±35	6.7±0.6

Species	Ca (mmol/L)	TA (µmol/kg)	DIC (µmol/kg)	pH (total scale)	*p*CO2 (µatm)	Omega (calcite)
G. oceanica	1	2479±3	2126±3	8.19±0	291±3	1.0±0.2
G. oceanica	9	2445±29	2109±5	8.17±0.05	304±37	5.0±0.3
G. oceanica	21	2444±6	2096±10	8.19±0.01	288±10	6.8±0.5
G. oceanica	25	2444±2	2081±9	8.22±0.01	270±9	8.2±0.4
G. oceanica	40	2452±2	2140±13	8.13±0.02	345±15	7.6±0.6
G. oceanica	52	2467±10	2091±3	8.23±0.01	259±5	9.7±0.2