Supplementary Table S1. *Solution $pH_{90°C}$, B concentrations, B to Na ratios, normalised boron releases, altered layer thicknesses and $\delta^{11}B$ values as a function of time for the ^{6}Li-Mg-EM and ^{10}B-ISG experiments*

Time (Days)	$pH_{90°C}$ [b]	[B] (µg mL^{-1})	1 S.D.	[B]/[Na] (mol mol^{-1})	1 S.D.	NL_B [d] (g m^{-2})	1 S.D.	e_B [e] (µm)	1 S.D.	$\delta^{11}B$ (‰)	2 S.D.
^{6}Li-Mg-EM experiments											
Pristine glass				3.53	0.55					-0.89	0.96
0.25	8.8	87.3	50.4	2.96	0.75	0.72	0.45	0.29	0.18	-0.70	0.53
0.5	8.7	174.0	52.6	2.66	0.75	1.43	0.64	0.59	0.26	-0.85	0.43
7	8.7	868.9	208.9	2.72	0.77	7.15	2.94	3.06	1.27	-0.01	0.49
28	8.8	1340.2	240.0	2.23	0.58	11.03	4.18	4.88	1.85	2.34	0.74
98	8.9	1452.9	181.6	1.91	0.48	11.96	3.19	5.33	1.42	0.12	0.09
70 [a]	8.9	495.5	61.9	1.70	0.42	4.46	1.19	7.56	2.02	-1.32	0.14
^{10}B-ISG experiments											
Pristine glass				1.27	0.18					-767.54	6.44
0.25	8.4	17.6	1.8	1.75	0.38	0.22	0.05	0.09	0.02	-741.97	2.75
0.5	8.5	30.7	3.1	1.71	0.38	0.38	0.08	0.15	0.03	-744.37	0.79
1	8.4	48.8	4.9	1.69	0.20	0.61	0.13	0.25	0.05	-746.29	0.60
7	8.4	78.8	7.9	1.77	0.21	0.99	0.22	0.40	0.09	-746.83	0.78
28	8.5	99.7	10.0	1.81	0.30	1.26	0.28	0.52	0.11	-745.42	1.35
112	8.5	128.1	25.6	[c]		1.61	0.41	0.66	0.17	-744.70	0.52
1 [a]	8.5	19.7	2.0	1.49	0.15	0.25	0.04	0.62	0.10	-744.32	0.52
7 [a]	8.5	42.6	4.3	1.60	0.26	0.54	0.08	0.74	0.11	-738.50	0.57
14 [a]	8.3	62.7	6.3	1.73	0.09	0.79	0.12	0.84	0.13	-741.31	0.73
21 [a]	8.4	85.2	8.5	1.72	0.20	1.07	0.17	0.96	0.15	-741.34	1.31
28 [a]	8.4	105.0	10.5	1.80	0.04	1.32	0.21	1.07	0.17	-741.54	0.86

[a] Samples from the solution-renewal experiments; time excludes the initial 28-day alteration time before solution renewal.
[b] pH values calculated at 90 °C with PHREEQC using the average solution compositions measured at each time.
[c] Only B concentrations were measured for this sample (MC-ICP-MS measurements).
[d] Normalised boron releases.
[e] Altered layer thicknesses calculated from the fractions of B leached into solution (main text Equation 3).