



*Supplement of*

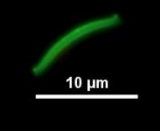

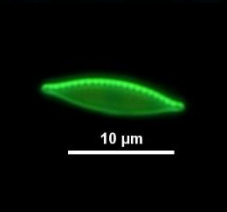
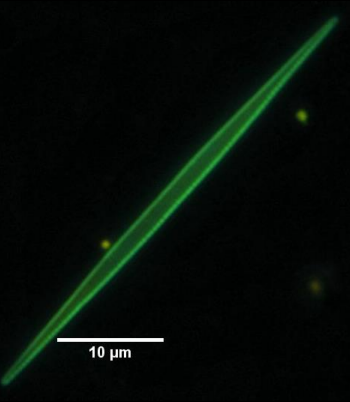
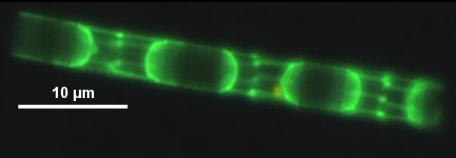
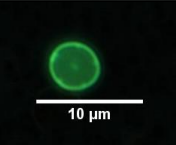
## **Investigating the effect of silicate- and calcium-based ocean alkalinity enhancement on diatom silicification**

**Aaron Ferderer et al.**

*Correspondence to:* Aaron Ferderer (aaron.ferderer@utas.edu.au)

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**Table S1.** Representative images of each genus used for statistical analysis.

Genus/group	Image
<i>Arcocellulus</i>	
<i>Cylindrotheca</i>	
<i>Nitzschia</i>	
<i>Pseudo-nitzschia</i>	
<i>Skeletonema</i>	
<i>Thalassiosira</i>	

**Table S2.** Results of post-hoc test (*emtrands*) assessing the variation in silicification between genera as a function of total alkalinity and alkalinity source mineral treatment.

<b>Mineral treatment</b>	<b>Contrast</b>	<b>Total alkalinity mean trend</b>	<b>Standard error</b>	<b>t-ratio</b>	<b>p-value</b>
<i>Ca</i>	<i>Arcocellulus - Cylindrotheca</i>	-0.09	0.06	-1.53	0.65
<i>Ca</i>	<i>Arcocellulus - Nitzschia</i>	-0.08	0.05	-1.53	0.64
<i>Ca</i>	<i>Arcocellulus - Pseudo-nitzschia</i>	-0.33	0.05	-7.22	<0.001*
<i>Ca</i>	<i>Arcocellulus - Skeletonema</i>	-0.06	0.05	-1.12	0.87
<i>Ca</i>	<i>Arcocellulus - Thalassiosira</i>	0.06	0.04	1.55	0.63
<i>Ca</i>	<i>Cylindrotheca - Nitzschia</i>	0.01	0.06	0.21	1.00
<i>Ca</i>	<i>Cylindrotheca- Pseudo-nitzschia</i>	-0.24	0.05	-4.32	<0.001*
<i>Ca</i>	<i>Cylindrotheca - Skeletonema</i>	0.03	0.06	0.55	0.99
<i>Ca</i>	<i>Cylindrotheca - Thalassiosira</i>	0.15	0.07	2.36	0.17
<i>Ca</i>	<i>Nitzschia - Pseudo-nitzschia</i>	-0.25	0.04	-6.79	<0.001*
<i>Ca</i>	<i>Nitzschia - Skeletonema</i>	0.02	0.05	0.42	1.00
<i>Ca</i>	<i>Nitzschia - Thalassiosira</i>	0.14	0.06	2.42	0.15
<i>Ca</i>	<i>Pseudo-nitzschia - Skeletonema</i>	0.27	0.04	6.10	<0.001*
<i>Ca</i>	<i>Pseudo-nitzschia - Thalassiosira</i>	0.39	0.05	7.32	<0.001*
<i>Ca</i>	<i>Skeletonema - Thalassiosira</i>	0.12	0.06	2.06	0.31
<i>Si</i>	<i>Arcocellulus – Cylindrotheca</i>	-0.06	0.06	-0.92	0.94
<i>Si</i>	<i>Arcocellulus - Nitzschia</i>	-0.40	0.05	-7.64	<0.001*
<i>Si</i>	<i>Arcocellulus - Pseudo-nitzschia</i>	-0.37	0.03	-11.20	<0.001*
<i>Si</i>	<i>Arcocellulus - Skeletonema</i>	-0.03	0.03	-1.06	0.90
<i>Si</i>	<i>Arcocellulus - Thalassiosira</i>	0.04	0.03	1.67	0.56
<i>Si</i>	<i>Cylindrotheca- Nitzschia</i>	-0.35	0.07	-4.68	<0.001*
<i>Si</i>	<i>Cylindrotheca- Pseudo-nitzschia</i>	-0.31	0.06	-5.02	<0.001*
<i>Si</i>	<i>Cylindrotheca- Skeletonema</i>	0.02	0.06	0.34	1.000
<i>Si</i>	<i>Cylindrotheca- Thalassiosira</i>	0.10	0.06	1.60	0.60
<i>Si</i>	<i>nitzschia – Pseudo-nitzschia</i>	0.04	0.05	0.72	0.98
<i>Si</i>	<i>nitzschia - Skeletonema</i>	0.37	0.05	7.59	<0.001*
<i>Si</i>	<i>nitzschia - Thalassiosira</i>	0.45	0.05	8.25	<0.001*
<i>Si</i>	<i>Pseudo-nitzschia - Skeletonema</i>	0.33	0.03	12.02	<0.001*
<i>Si</i>	<i>Pseudo-nitzschia - Thalassiosira</i>	0.41	0.04	11.54	<0.001*
<i>Si</i>	<i>Skeletonema - Thalassiosira</i>	0.08	0.03	2.22	0.23