



## Supplement of

## Mineralogical response of the Mediterranean crustose coralline alga *Lithophyllum cabiochae* to near-future ocean acidification and warming

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Treatment	400	400T+3	700	700T+3
New crust		Mol%	MgCO <sub>3</sub>	
sample 1	14.7%	15.6%	14.9%	16.4%
sample 2	14.0%	16.4%	15.2%	16.3%
sample 3	15.1%	15.9%	15.1%	16.0%
sample 4	16.0%	15.3%	15.1%	16.4%
sample 5	14.8%	16.2%	15.6%	15.9%
sample 6	15.8%	16.0%	15.4%	15.8%
sample 7	15.6%	16.9%	14.7%	15.8%
sample 8	15.6%	15.8%	14.1%	15.7%
average	15.2%	16.0%	15.0%	16.1%
St. Dev	0.7%	0.5%	0.5%	0.3%

 Table 1: XRD Mol% MgCO3 for new crust.

Main thalli				
Treatment		Mol% MgCO <sub>3</sub>	Asymm. mol%	Asymm. Diff.
400	sample 1	15.36%	15.74%	0.39%
400	sample 2	15.45%	16.16%	0.71%
400	sample 3	15.49%	16.11%	0.62%
400	sample 4	16.72%	17.68%	0.95%
400	sample 5	15.99%	16.67%	0.68%
400	sample 6	16.53%	18.15%	1.62%
400	sample 7	16.25%	17.08%	0.83%
400	sample 8	16.45%	18.09%	1.64%
	average	16.0%	17.0%	0.9%
	St. Dev	0.5%	0.9%	0.5%
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400T+3	sample 1	16.35%	17.34%	0.99%
400T+3	smaple 2	15.57%	16.20%	0.63%
400T+3	sample 3	15.69%	16.72%	1.03%
400T+3	sample 4	16.14%	17.42%	1.28%
400T+3	sample 5	15.95%	16.72%	0.77%
400T+3	sample 6	16.63%	17.58%	0.96%
400T+3	sample 7	15.89%	16.86%	0.97%
400T+3	sample 8	16.16%	16.93%	0.77%
	average	16.0%	17.0%	0.9%
	St. Dev	0.3%	0.5%	0.2%
700	sample 1	15.57%	16.57%	1.00%
700	sample 2	16.25%	18.08%	1.83%
700	sample 3	15.75%	16.62%	0.87%
700	sample 4	15.87%	16.32%	0.45%
700	sample 5	15.75%	16.99%	1.25%
700	sample 6	16.00%	16.95%	0.95%
700	sample 7	15.24%	16.04%	0.80%
700	sample 8	14.95%	15.29%	0.34%
	average	15.7%	16.6%	0.9%
	St. Dev	0.4%	0.8%	0.5%
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700T+3	sample 1	16.87%	17.58%	0.71%
700T+3	sample 2	16.66%	17.83%	1.17%
700T+3	sample 3	15.87%	16.75%	0.88%
700T+3	sample 4	16.53%	17.73%	1.21%

	St. Dev	0.6%	0.6%	0.3%
	average	16.1%	17.3%	1.1%
700T+3	sample 8	16.51%	18.04%	1.54%
700T+3	sample 7	15.92%	17.16%	1.25%
700T+3	sample 6	15.30%	16.49%	1.19%
700T+3	sample 5	15.51%	16.47%	0.96%

 Table 2: XRD Mol% MgCO3 for main thalli.

Dissolution chips					
Treatment		mol% MgCO <sub>3</sub>	Asymm. mol%	Asymm. Diff	
400T	sample 1	15.11%	15.60%	0.49%	
400T	sample 2	15.76%	16.49%	0.74%	
400T	sample 3	15.56%	16.42%	0.85%	
400T	sample 4	14.66%	15.67%	1.00%	
400T	sample 5	14.95%	16.21%	1.26%	
400T	sample 6	16.35%	17.38%	1.03%	
400T	sample 7	15.35%	16.43%	1.07%	
400T	sample 8	15.44%	16.26%	0.81%	
	average	15.4%	16.3%	0.9%	
	St. Dev	0.5%	0.6%	0.2%	
400T+3	sample 1	15.72%	16.51%	0.79%	
400T+3	sample 2	15.80%	16.58%	0.79%	
400T+3	sample 3	15.79%	16.63%	0.84%	
400T+3	sample 4	15.71%	16.80%	1.09%	
400T+3	sample 5	16.40%	17.48%	1.08%	
400T+3	sample 6	14.95%	15.40%	0.45%	
400T+3	sample 7	15.36%	16.04%	0.68%	
400T+3	sample 8	15.12%	15.69%	0.58%	
	average	15.6%	16.4%	0.8%	
	St. Dev	0.5%	0.7%	0.2%	
700T	sample 1	15.43%	15.95%	0.52%	
700T	sample 1 sample 2	15.53%	16.28%	0.75%	
700T	sample 2 sample 3	15.12%	15.68%	0.75%	
700T	sample 3	16.59%	17.53%	0.94%	
700T	sample 5	15.14%	15.88%	0.73%	
700T	sample 5	15.85%	16.38%	0.73%	
700T	sample 0	15.32%	15.67%	0.32%	
700T	sample 7	15.73%	16.64%	0.91%	
1001	average	15.6%	16.2%	0.7%	
	St. Dev	0.5%	0.6%	0.2%	
		0.570	0.070	0.2 /0	
700T+3	sample 1	15.54%	15.90%	0.36%	
700T+3	sample 2	15.68%	16.27%	0.60%	

	St. Dev	0.3%	0.6%	0.3%
	average	15.5%	16.2%	0.7%
700T+3	sample 8	15.07%	15.68%	0.62%
700T+3	sample 7	16.11%	17.33%	1.22%
700T+3	sample 6	15.35%	16.23%	0.88%
700T+3	sample 5	15.62%	16.15%	0.53%
700T+3	sample 4	15.12%	15.64%	0.52%
700T+3	sample 3	15.79%	16.71%	0.92%

 Table 3: XRD Mol% MgCO<sub>3</sub> for dissolution chips.