Metadata

**Elevated pCO2 affects tissue biomass composition, but not calcification, in a reef coral under two light regimes**

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Seawater chemistry data for *Pocillopora acuta* fragments exposed to 32 d of pCO2 and light treatments. Data represented here are output from raw data (pH, temp, salinity, total alkalinity) processed through the package *seacarb* in *R*.

Columns

*Date* = day of sample processing in dd/mm/yy

*Tank* = replicate experimental tanks for each orthogonal treatment conditions

*CO2* = carbon dioxide (CO2) gas addition to seawater treatment, either ambient partial pressure CO2 (ACO2, mean = 435 μatm pCO2) or high (HCO2, 957 μatm pCO2)

*Light* = light treatment, either low light (LL, 7.5 mol photons m-2 d-1) or high light (15.7 mol photons m-2 d-1)

*Treatment* = orthogonal combination of light-pCO2 treatments. LL–AC = low light-ambient pCO2, LL–HC = low light-high pCO2, HL–AC = high light-ambient pCO2, HL–HC = high light-high pCO2

*Salinity* = salinity of seawater within experimental tanks measured by YSI conductivity meter

*Temperature* = seawater temperature in degrees Celsius

*pHT* = pH of seawater on the total scale (pHT)

*pCO2* = partial pressure of carbon dioxide in seawater in μatm

*HCO3* = bicarbonate concentration in seawater (μmol/kg)

*CO3* = carbonate concentration in seawater (μmol/kg)

*DIC* = dissolved inorganic carbon concentration in seawater (μmol/kg)

*ALK* = total alkalinity (*AT)* of seawater (μmol/kg)

*OmegaAragonite* = aragonite saturation state (unitless)