

High school Investigation activities for the Carbonates quantities interaction between the ocean lives' shells and atmosphere-ocean.

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Carbondioxide CO₂ has been risen up to 420ppm lat 30 years(Japan Meteorological Agency). CO₂ is binding with Ca cation and forms Calcite CaCO₃ in the seawater in long terrestrial history. In my teaching school, I and my students have investigated ocean saline components includes Ca cation. Ca cation is easy reminded to bind with CO₃.Indeed, we confirmed the seasonal fluctuate the Ca cation in the sea water.

From 2019, we investigate CO₂ quantiktities from oseaan Oyster from seaside in my area Hamada warf, CO₂ values fluctuate 45 wt.% in autumn to 55 wt.% in winter.

In my presentation, I will report the way haw to measure the CO₂ quantities from the ocean biological shells and how did we make the discussion activities in the high school.

Keywords: Fixing CO₂ in the ocean, Atmosphere and ocean interaction, Ca cation

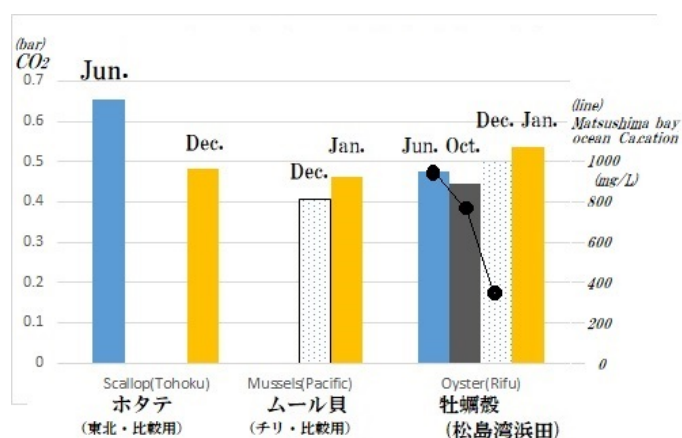


Fig.1 CO₂ degassing from shells (weight ratio)
牡蠣殻のCO₂脱ガス量季節変化と海水Ca²⁺イオン濃度変化



Fig.2 松島湾浜田産牡蠣殻