THE CARBON DIOXIDE SYSTEM IN THE CANARY ISLANDS AREA

Poster

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The global climate system is considerably influence by the North Atlantic Ocean. The North Atlantic Ocean with high latitude oceanic regions of deep waters formation, mid-latitude sites of mode water formation and a subtropical oligotrophic ocean, is thought to be a large sink for atmospheric CO2. The Canary Oceanic region is a peculiar area that is influence by both Canary currents and Mediterranean waters. Results from a series of cruises inside CANIGO are presented, where the measurements of the carbon dioxide parameters fCO2, pH, AT, and CT have been made in a densely sampled surveys north of the Canary Island. Co-variation of the measured CO2-parameters with temperature, salinity and oxygen and nutrients changes in ESTOC and surrounding area in clearly showed in the first 500 m. Below, the profiles measured indicate a remarkable variability due to varying contributions from AAIW, Mediterranean Overflow and propagation of Labrador Sea Water.