Dissolved Inorganic Carbon dynamics in the northern Bay of Biscay during a Coccolithophore bloom.

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In the framework of the Belgian global change programme, we have developed a project devoted to the study of the inorganic carbon cycle in the Bay of Biscay where coccolithophore blooms occur frequently. The study focuses on processes associated with the oceanic production and dissolution of calcium carbonate and related CO2 fluxes. Real time remote sensing allowed to localize the coccolithophore bloom that the R.V. Belgica visited in June 2004 during a multidisciplinary scientific cruise. We will present vertical profiles of pH, Talk, along with other parameters (salinity, temperature, chlorophyll a and phaeopigments) and 14C incorporation experiments. Inorganic carbon fluxes will be discussed in the photic zone, in correlation with the biological activity of phytoplankton (biological and carbonate pumps).