



Anthropogenic CO₂ in the Mediterranean Sea

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Measurements of CO₂ and tracers are sparse in the Mediterranean Sea and there are no published estimates of the anthropogenic carbon (C_{ant}) inventory. Here we present a dataset of inorganic CO₂ and CFC's from a cruise with the research vessel Meteor in October/November 2001 (M51/2) that traversed the Mediterranean Sea from west to east. We calculated the C_{ant} distribution in the Mediterranean Sea with the TTD (transient time distribution) method using the CFC data and the surface water alkalinity-salinity-correlation determined with data from the same cruise. On this basis we present an estimate of the Mediterranean Sea inventory of C_{ant} . Since there are more datapoints in the eastern than in the western part, we divided the Mediterranean Sea into 3 basins and calculated an inventory for each of them separately. Compared to its small volume relative to the world oceans the Mediterranean Sea has a high column inventory of C_{ant} .