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"A story of the oceans, phytoplankton, trace elements and carbon"



Abstract:

The world's oceans play a key role in the earth climate system. They take up large amounts of atmospheric CO_2 through the solubility pump and as a consequence become more acidic. In addition, they take up CO_2 through the action of phytoplankton. The supply of nutrients, including phosphorus, nitrogen and iron controls the productivity of phytoplankton in the ocean and consequently the biological carbon pump.

This talk will discuss the effects of iron supply on ocean productivity and will show current research on ocean acidification. Work will be presented that has been conducted as part of the International SOLAS and GEOTRACES programmes, the DFG SFB754 project, and the UK Greenhouse Gas and Ocean Acidification programmes.

Bio:

Eric Achterberg is Professor in Marine Chemistry at University of Kiel and GEOMAR, Germany, with a research focus on open ocean biogeochemistry, global change and ecosystem functioning, nutrient and (in)organic carbon and trace element distributions, trace element behavior and speciation (incl. colloids and nanoparticles) and the interactions with geochemical and biological processes.