

Press Release

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-ups that build their business models on selling CO₂ certificates for Ocean Alkalinity Enhancement, there is an urgent need for research about potential Oceanography at GEOMAR coordinates the experiment together with Dr. Kau Schulz, guest scientist basis for decision-making on the possible use of alkalinity enhancement for active CO₂

Other approaches of ocean-based carbon dioxide removal that are currently being investigated include the restoration of seagrass meadows, the cultivation of macroalgae and the storage of carbon dioxide in the seabed (carbon capture and storage, CCS). Which measures are ultimately used needs to be decided as part of an overall societal process to mitigate climate change.

also the first one that uses rock powder instead of pre-dissolved alkalinity. We look forward to finding says Dr. Kai Schulz.

The series of experiments involves 36 researchers from a variety of research institutions in Germany, Europe, the United States of America, Canada, Australia and Asia.

The current experiment and the cooperation with international partners strengthen the expertise of marine research in Kiel on options for marine carbon uptake for climate protection, emphasises GEOMAR Director Professor Dr Katja Matthes. It looks at one of several currently discussed approaches to carbon dioxide uptake in the ocean and thus contributes important knowledge to social and political decision-making. In this way, it also complements the findings of the German Marine Research Alliance's research mission 'Marine Carbon Storage as a Pathway to Decarbonisation', CDRmare, which is coordinated at GEOMAR.

Background: Ocean Alk-Align

Ocean Alk-Align is a research project designed to investigate the efficiency and durability, environmental safety and requirements for monitoring, reporting, and verification (MRV) of Ocean Alkalinity Enhancement in an unbiased approach. It is coordinated by Dalhousie University, Canada. Project partners are GEOMAR, Universität Hamburg and the Universities of Southern Cross and Tasmania, Australia. The project is funded by the Carbon to Sea initiative and the Thistledown Foundation from the United States of America.

Links:

<https://alkalign.ocean.dal.ca> Ocean Alk-Align

<https://carbontosea.org> Carbon to Sea

<https://www.geomar.de/en/discover/ocean-for-climate-protection/carbon-uptake-in-the-ocean/ocean-alkalinity-enhancement> GEOMAR Discover: Ocean Alkalinity enhancement (comprehensible background information)

<https://www.geomar.de/en/news/article/speeding-up-knowledge-generation-in-a-transparent-and-responsible-way> GEOMAR press release „Speeding up knowledge generation in a transparent and responsible way“ (27.11.2023)

<https://cdrmare.de> Forschungsmission CDRmare

<https://storymaps.arcgis.com/stories/2a51d96684cc42169a82a8da8a7f0b2b> Storymap „Wie reagiert das Leben im Meer? Experimente zur Alkalinitätserhöhung des Ozeans“ (German)

<https://www.geomar.de/en/news/article/strengthening-trans-atlantic-ties> GEOMAR press release „Strengthening trans-Atlantic ties“ (16.01.2024)

Images:

Images are available for download at <http://www.geomar.de/n9354-e>

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