

Press release

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Joint press release by GEOMAR Helmholtz Centre for Ocean Research Kiel, the Cluster of Excellence “The Future Ocean” and Kiel University

Between the Ocean and the Atmosphere International Conference of the Surface Ocean - Lower Atmosphere Study (SOLAS) in Kiel

9. September 2015/Kiel From September 7 – 11 more than 250 scientists from 35 countries are meeting at the Open Science Conference of the Surface Ocean - Lower Atmosphere Study in Kiel to discuss complex physical, chemical and biological exchange processes between the ocean and the atmosphere. The event is taking place at Kiel University and is supported by the GEOMAR Helmholtz Centre for Ocean Research Kiel, the Cluster of Excellence “The Future Ocean”, the German Research Foundation, the collaborative research center 754 “Climate Biochemistry Interactions in the Tropical Ocean” and the German SOLAS project SOPRAN.

The exchange between the ocean and the atmosphere is of great importance not only for our climate system. In addition to the physical parameters of warmth and energy, the most diverse biological and chemical substances are also exchanged between these two media. The ocean takes up about one-third of anthropogenically produced carbon dioxide; the introduction of trace metals by means of dust is also very important for biogeochemical processes in the ocean. On the other hand, natural bromine emissions from the ocean influence the ozone budget in the atmosphere.

At the SOLAS conference, taking place this week at Kiel University and serving as the closing event for the semester topic “Ocean Interfaces” of the Kiel Cluster of Excellence, the processes mentioned above are clearly reflected in the themes of the conference: greenhouse gases and the oceans, the ocean-atmosphere interface and mass and energy flow, atmospheric deposition and the biogeochemistry of the ocean and the biogeochemical influence of the ocean on atmospheric chemistry are some of the main topics.

“For many years Kiel has been one of the main centers for research on the exchange processes between the ocean and the atmosphere,” says ocean chemist Prof. Hermann Bange of GEOMAR Helmholtz Centre for Ocean Research Kiel and member of the local organizing committee for the SOLAS conference. “Notable here are especially many years of research in the subtropical Northeast Atlantic and off Peru in the collaborative research center 754 and SOPRAN or the time series station Boknis Eck, but also the modeling of biogeochemical mass flows or the expansion of oceanic trace substances in the atmosphere,” continues Prof. Bange. “The SOLAS conference in Kiel presents an ideal opportunity for initiating this kind of interdisciplinary research with

international partners,” adds Prof. Gernot Friedrichs from the Institute of Physical Chemistry at Kiel University.

“Alongside the conference, at which the strategy of SOLAS for the next decade should be decided, other workshops are taking place, including an event on a ‘CO₂ atlas of the upper ocean’, in which all data available world-wide will be collected”, explains the Chair of the international SOLAS program Dr. Véronique Garçon from the Centre National de la Recherche Scientifique at Laboratoire d’études en géophysique et océanographie spatiales (LEGOS) in Toulouse.

SOLAS has a special bond to Kiel. The launch event of the SOLAS program took place in Schleswig-Holstein. 15 years ago the meeting took place in Damp on the Baltic Sea coast, organized by the then Institute for Marine Science, one of the predecessor institutions of today’s GEOMAR. Since 2010 the project office of the SOLAS program has also been located at GEOMAR. “In Kiel we have found the best conditions and great support for the coordination of the international SOLAS program,” says Dr. Emilie Brévière, Head of the SOLAS office. Together with many helpers she organized the international conference. “We were overwhelmed by the great reception,” adds Dr. Brévière. “We have considerably more participants than expected, in spite of the long journey for some.”

The international SOLAS program is sponsored jointly by the following programs: International Geosphere Biosphere Programme (IGBP), Scientific Committee on Oceanic Research (SCOR) Commission on Atmospheric Chemistry and Atmospheric Pollution (CACGP) and the World Climate Research Programme (WCRP).

Links:

www.solas-int.org The international SOLAS program
www.solas-int.org/osc2015.html Website of the SOLAS conference

Partners:

www.geomar.de GEOMAR Helmholtz Centre for Ocean Research Kiel
www.uni-kiel.de Kiel University
www.futureocean.org The Cluster of Excellence “The Future Ocean”
www.sfb754.de Collaborative research center 754 “Climate Biochemistry Interactions in the Tropical Ocean”
<http://sopran.pangaea.de> SOPRAN project
www.dfg.de German Research Foundation

Images:

Images are available for download at www.geomar.de/n3992

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