



“Distribution and fate of methane released from submarine sources - Challenges and results of measurements by using an improved in situ mass spectrometer ”



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Date: 25th April 2017 (Tuesday)
Time: 05:30 p.m.
Venue: Research Building Department
 „Life, Light & Matter“ of the Interdisciplinary Faculty
 of the University of Rostock,
 seminar room 110, A.- Einstein-Str. 25, 18059 Rostock

Abstract

Methane (CH₄) is the most frequent organic compound in the atmosphere and its influence on the global climate is subject of currently conducted scientific discussion. One source of atmospheric methane is the release of CH₄ from the oceans seafloor. These submarine sources are characterized by rising gas bubbles or diffusive methane flux into the water column. Due to the limited number of samples taken by conventional ex situ methods, an accurate quantification of the methane distribution could hardly be estimated. With the help of an optimized mass spectrometer (9 years of ongoing engineering) it became possible to obtain distribution patterns of dissolved CH₄ in the water column in high resolution.

In this talk I will present the challenges of the work with the Inspectr200-200 during the last 9 years and, from the scientific point of view, the detection and mapping of submarine released methane as well as the study of relevant pathways and its potential contribution to the atmospheric methane budget.

Speaker's Biography

In February 2013 Dr. Torben Gentz gained his dissertation (“Distribution and fate of methane released from submarine sources – Results of measurements using an improved in situ mass spectrometer”) at the excellent university Bremen/Germany. During his PhD as well his diploma thesis to receive the degree of a chemical engineer Dr. Torben Gentz was intensively working with an underwater mass spectrometer. Therefore he got to be one of very few experts in the field of applied underwater mass spectrometry. His work with the UWMS was published in high ranked journals. Additional, with more than 25 expedition on land, on ships, on fleets and measuring towers Dr. Gentz got a lot of field experiences. Dr. Torben Gentz is the founder and CEO of „AWI Spin-off“ SubSeaSpec UG (haftungsbeschränkt). In the last years Dr. Gentz generated a huge network in the field of gas analysis and distributors of underwater instruments.

Since October 2015 he got a new position at the AWI as the scientific lab manager of a new accelerator mass spectrometer.

All interested are welcome

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