



Mobile MAX-DOAS and in situ measurements of NO₂ and SO₂

Folkard Wittrock (1), Enno Peters (1), André Seyler (1), Barbara Mathieu-Üffing (1,2), Lisa Kattner (1,2),
Andreas Richter (1), and John P. Burrows (1)

(1) University of Bremen, Institute of Environmental Physics, Bremen, Germany (mail@folkard.de), (2) Bundesamt für
Seeschifffahrt und Hydrographie, Hamburg, Germany

The project MeSMarT (Measurements of shipping emissions in the marine troposphere) has been established as a cooperation between the University of Bremen and the German Bundesamt für Seeschifffahrt und Hydrographie (Federal Maritime and Hydrographic Agency) to estimate the influence of shipping emissions on the chemistry of the atmospheric boundary layer and to establish a monitoring system for main shipping routes. As part of the project in 2015 a mobile lab has been set up, which includes among other instrumentation for air pollution and meteorological parameters a scientific-grade MAX-DOAS system as well as in situ instruments for nitrogen oxides and sulfur dioxide (trace level).

Focusing on NO₂ and SO₂ we present intercomparison results between the different instruments onboard the mobile lab as well as comparisons to standard instrumentation used at different sites in Northern Germany within the project.