

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

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In this study we present measurements of NO₂ and SO₂ using the mobile lab (measurement truck) of the Institute of Environmental Physics Bremen. The truck is equipped with several in situ instruments as well as with a state-of-the-art scientific grade MAX-DOAS system. This combination provides the unique opportunity to investigate both horizontal and vertical spatial distributions of pollutants. This supports the validation of satellite observations with high spatial resolution like TROPOMI.

The observations presented here, have been carried out in Northern Germany and in the Netherlands covering low to very high pollution conditions close to emission sources. Several approaches to study the link between surface and remote-sensing observations are investigated and compared.