

P1-01 TRACE GAS MEASUREMENTS USING MAX-DOAS IN A POLLUTED MARINE ENVIRONMENT

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Multi-Axis Differential Optical Absorption Spectroscopy (MAX-DOAS) is a passive DOAS technique that uses scattered sunlight to determine the total differential slant column densities of trace gas absorbers. Measurements using a MAX-DOAS instrument developed at York University were taken from July 23rd – August 10th, 2005 on Saturna, Island, B.C., Canada. Saturna is one of the Gulf Islands located between Vancouver and Vancouver Island. The goal of the Saturna measurements was to determine the concentration of several trace gas species from a site where one would expect a significant interaction of urban and marine emissions. In particular, this study was looking for evidence of reactive halogen species such as BrO, at mid-latitudes, and also exploring the use of MAX-DOAS for investigating pollutant inhomogeneities in a region. Although analysis of this data is currently still a work in progress, preliminary results for trace gases such as NO₂, BrO, and HCHO will be presented.