



First Measurements of Iodine Oxide (IO) with MiniDOAS

J. Zingler and U. Platt

Institute for Environmental Physics, University of Heidelberg, Germany

Iodine oxide (IO) is well known to be an important trace gas in the tropospheric boundary layer. It has been measured by active long-path DOAS (Differential Optical Absorption Spectroscopy) instruments several times during the last years.

Here we present the first measurements of IO by means of MiniDOAS. This passive method allows us to retrieve vertical profile information about IO in the tropospheric boundary layer by analyzing scattered sunlight spectra.

Data from two field campaigns are ready for discussion. First, we will show results from our measurements at Kerguelen Island, Southern Indian Ocean, during 2003/04. This island is situated in a biologically very productive region but remote from continental pollution.

Complementary, the Dead Sea, Israel, is a good site to study IO release from inorganic sources. There, IO could be detected in summer 2004 using the MiniDOAS technique.

The maximum dSCDs (differential slant column densities) reached at both sites approximately 7×10^{13} molec/cm². Times series and a vertical distribution of IO will be discussed, as well as release mechanisms.