



Measurements and modelling of tropospheric bromine monoxide for the Canadian Arctic within the COBRA-IPY project

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In February and March 2008, a 5 week-long field campaign took place at the Centre d'études nordique research station in Kuujuarapik (55°N) at the Hudson Bay, Canada. The aim of this project (COBRA) was to study the impact of combined iodine and bromine release on the Arctic atmosphere within the frame of the International Polar Year (IPY) programme.

Significantly enhanced BrO concentrations of up to 30 ppt could be observed during a so-called bromine explosion event. Here, ground-based measurements are presented from two differential optical absorption spectroscopy (DOAS) instruments: a long path DOAS and a multi-axis DOAS. The time series of the retrieved BrO column densities, surface concentrations and vertical profiles will be compared to satellite data from SCIAMACHY and GOME-2 as well as to model simulations.