



Bromine oxide observations in the coastal Antarctic boundary layer

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Year-round boundary layer DOAS measurements were carried out during the project CHABLIS (Chemistry of the Antarctic Boundary Layer and Interface with Snow) at Halley Bay (75° S 25° W) in coastal Antarctica. Here, we present BrO observations made using a long-path DOAS instrument, operating with an effective optical path-length of 8 km and 4-5 m over the ice surface. The Halley Bay Station is located on the shelf ice in coastal Antarctica, at an approximate distance of 12 km from the ocean. The mixing ratio of BrO is found to have a marked diurnal and seasonal variation. During the campaign measurements were performed under different meteorological conditions ranging from dry surface winds from the interior of Antarctic to easterly winds associated to sea ice areas. Comparison of modelling results and BrO data, and its impact upon O_3 and DMS in coastal Antarctica, will also be presented.