



## **Ground-based observations of Halogen Oxides in the Antarctic Boundary Layer**

Cristina Prados-Roman (1), Laura Gómez (1), Olga Puentedura (1), Mónica Navarro-Comas (1), Héctor Ochoa (2), and Margarita Yela (1)

(1) Atmospheric Research and Instrumentation Branch, National Institute for Aerospace Technology (INTA), Madrid, Spain (pradosrc@inta.es), (2) Dirección Nacional del Antártico (DNA), Instituto Antártico Argentino (IAA), Buenos Aires, Argentina

Being involved in ozone destruction cycles, the halogen oxides (containing Br, Cl or I) are relevant reactants not only in the stratosphere but also in the troposphere.

In order to characterize the presence of halogen oxides in the Antarctic boundary layer (BL), two MAX-DOAS instruments developed by INTA were installed at two different Antarctic sites: Marambio (64° S) and Belgrano (78° S). Note that, although both stations sit on pristine and remote locations, the surroundings of each station is unique and so is the atmospheric chemistry.

Here we present the results of the measurements of BrO and IO performed in the sunlit atmosphere of both stations during 2015. We will focus on the activation of reactive bromine, its sources and sinks and its vertical distribution in the troposphere. We will also address the differences found regarding the bromine content of the BL in the two Antarctic sites. Moreover, we will investigate the presence of IO in the Antarctic BL.