



## **MIPAS observations: Polar stratospheric clouds (PSC) and BrONO<sub>2</sub> during Arctic winter 2009/2010**

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The Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) on Envisat is especially suited for the observation of polar stratospheric clouds (PSC) due to its high sensitivity on thin clouds and its ability to distinguish between different types independently of sunlight. Further, in 2009, MIPAS observations lead to the first measurements of bromine nitrate (BrONO<sub>2</sub>) in the stratosphere.

We will report on daily PSC-appearance and -composition from MIPAS observations in the actual Arctic winter 2009/2010. The results will be compared to the PSC distributions of previous winters 2002/2003, 2003/2004, 2005/2006-2008/2009 and analysed in connection with ECMWF data.

Further, MIPAS day-and nighttime BrONO<sub>2</sub> fields (10 deg latitude bin) of winter 2009/2010 will be shown with unprecedented temporal resolution of three days compared to one month in previous analyses. In combination with the PSC observations, the dataset will be analysed with respect to indications of heterogeneous bromine chemistry.