

Simultaneous detection of OCIO and ClO using Odin.

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OSIRIS, the Optical Spectrograph and IR Imager System on board the Odin satellite provides spectra of the sunlit Earth limb in the UV-vis spectral region (275-815 nm). Vertical columns of O₃ and NO₂ are currently retrieved and provided as standard level 2 products. Recently it has been demonstrated that, using a retrieval method based on a combination of differential optical spectroscopy (DOAS) and Optimal Estimation Method (OEM) also OCIO vertical columns can be retrieved in the regions of activated chlorine. SMR, the Sub-Millimetre Radiometer on board Odin provides simultaneous and collocated measurements of ClO. A study of the relationship between these two important players in the stratospheric ozone chemistry is now undertaken under varying geophysical conditions. A comparison to the predictions from REPROBUS, a 3-D chemical transport model will also be carried out.