

ClONO₂ behavior at high latitudes revealed by the Improved Limb Atmospheric Spectrometer (ILAS)

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<http://www.ics.nara-wu.ac.jp/lab/ozonogroup/index.html>

The retrieval algorithm (version 6.0) of the Improved Limb Atmospheric Spectrometer (ILAS) successfully derives chlorine nitrate (ClONO₂) profiles. ILAS data can provide a continuous and comprehensive dataset of ClONO₂ with related minor species from November 1996 through June 1997 over high altitudes for both hemispheres. This paper discusses the temporal evolution of ClONO₂ for the entire ILAS observation period. Although ILAS ceased functioning at the end of June and did not observe an entire austral winter, ILAS could observe the whole boreal winter of 1996/1997 when a significant chemical ozone loss was observed. Besides, ILAS monitored recovery periods after ozone depletion in both hemispheres and an inter-hemispheric comparison is therefore possible.