NOX DERIVED FROM MIPAS/ENVISAT IN THE SOUTH HEMISPHERE VORTEX SPLIT-UP EVENT IN SEPTEMBER/OCTOBER 2002

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Vertical profiles of NO and NO\textsubscript{2} have been derived from high resolution atmospheric limb emission spectra in the mid-infrared measured by MIPAS/ENVISAT (Michelson Interferometer for Passive Atmospheric Sounding) during the split-up of the southern polar vortex in September/October 2002. In order to account for strong non-local thermodynamic equilibrium (non-LTE) emissions of NO in the measurements, a dedicated non-LTE retrieval scheme, which includes a generic non-LTE population model, has been applied. The performance of the retrievals will be demonstrated by a comprehensive error analysis. We will show the temporal and spacial evolution of retrieved stratospheric NO\textsubscript{x} during the split-up event and compare the results to vertical profiles of other NO\textsubscript{y} species derived from MIPAS measurements during the event.