

Temporal variation of HCl, HF, O₃, and HNO₃ observed at Tsukuba with FTIR

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The vertical column densities of HCl, HF, O₃, and HNO₃ were observed at Tsukuba with a High-resolution Fourier transform spectrometer since December, 1998. The average of the HCl column observed between December 1998 and December 2004 is about 3.7×10^{15} [cm⁻²]. HCl column increased from 1999 to 2001 and decreased from 2003 to 2004. The average of the HF column is about 1.1×10^{15} [cm⁻²]. HF column increased from 1999 to 2002 and the increase seems to be stopped in 2003 and 2004. It is indicated that the effect of the decrease of the CFCs can be find in Cly and Fy in the stratosphere.