



The ozone vertical structure determining from ground-based Fourier spectrometer solar IR radiation measurements

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The remote sensing method based on ground-based measurements of the direct solar IR radiance by Bruker Fourier spectrometer with high spectral resolution ($\sim 0.005 \text{ cm}^{-1}$) has been considered. The spectra measured at St. Petersburg State University (59.88N, 29.82E) in 2009-2011 have been analyzed. The retrieval task has been processed using SFIT2, PROFFIT and originally developed software. The ozone total column amount as well as the content in thick atmospheric layers has been obtained for the whole period of measurements. The results have been compared to independent ground-based and satellite measurements. The temporal variations of ozone vertical structure, such as daily and seasonal cycles, have been studied.