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The study of ozonosphere trace gases near St.Petersburg on the basis of FTIR solar spectra measurements

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The ground-based method of the direct solar IR radiance measurements by FTIR spectrometer with high spectral resolution (∼0.005 cm-1) has been considered. The spectra measured at St. Petersburg State University (59.88N, 29.82E) in 2009-2012 have been analyzed.

The amounts of ozone isotopes and ozone-cycle trace gases have been retrieved with PROFFIT software. The obtained data have been analyzed independently and simultaneously and compared with other remote sensing methods data as well as with models. The correlations between temporal variations of different ozonosphere trace gases have been studied. It has been shown that ground-based high-resolution FTIR-spectrometer method can be used in validation of satellite data and in refinement of models' parameters.

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