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Compact dual-band FTIR spectrometer for atmosphere monitoring

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Abstract:

Novel FTIR spectrometer for the monitoring of atmosphere is presented. Its design stands out by a compact form allowing the measures in two IR spectral bands 3-5 and 8-12 μ m simultaneously. The spectrometer is composed of two Michelson interferometers with the joint sliding mirror. The paper contains the detailed description of the optics and electronics units, preliminary results of the measurement of biological aerosols and calibration methods.