FREE TROPOSPHERIC MEASUREMENTS OF BIOMASS BURNING EMISSIONS BY THE ATMOSPHERIC CHEMISTRY EXPERIMENT (ACE)

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The Atmospheric Chemistry Experiment (ACE) was successfully launched in August 2003 to monitor the chemical composition Earth's atmosphere with measurements obtained primarily in solar occultation mode. The primary instrument is a Fourier transform spectrometer (FTS) covering the infrared from 750-4400 cm^{-1} simultaneously with a maximum optical path difference of 25 cm (0.02 cm^{-1} resolution). We describe free tropospheric measurements of biomass burning products such as HCN, CO, C_2H_6, CH_3Cl, HCOOH and 1.02 μm extinction and their interpretation based on other satellite measurements and back trajectory calculations.