AN: **A32A-04**
TI: Remote measurements of tropospheric trace gases by solar absorption spectrometry
AU: G. C. Toon
EM: toon@mark4sun. jpl.nasa .gov
AU: B. Sen
EM: sen@mark4sun. jpl.nasa.gov
AU: J.-F. Blavier
AF: Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91109, USA
EM: blavier@mark4sun. jpl .nasa.gov
AB: Recent balloon flights of the JPL MkIV Interferometer have obtained sunset spectra down to very low tangent altitudes (4 km) . Measured from an altitude of 39 km, these spectra are virtually identical to those that would be measured from space, and therefore can be used to assess the feasibility of spaceborne tropospheric remote sensing by the solar occultation technique. Each MkIV spectrum covers the entire 650 to 5650 cm-1 spectral range simultaneously at 0.02 cm-1 resolution. This wide spectral coverage and high resolution, in conjunction with the high signal-to-noise ratio inherent to the solar absorption technique, allows over 30 different gases to be measured simultaneously in the same airmass. These gases include several of tropospheric interest such as C2H6, C2H2, HCOOH, H2O2, H2CO, CO, H20, **HDO, HCN, HN04,** HNO3, NO2, **NO** and 03. This paper will discuss some of the factors which currently limit the accuracy of these retrievals and the possibility of future improvement.
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