

THE RESULTS OF UV AND IR BALLOON-BORNE SPECTROSCOPY BY SPICAM-S

O. Korablev (1), H. Deceuninck (2), C. Muller (3), E. Neefs (3), C. Lippens (3) J.-L. Bertaux, (4), and E. Dimarellis (4).

(1) Space Research Institute (IKI), Moscow, (2) Verhaert D&D, Antwerp, (3) Belgian Institute for Space Aeronomy, Brussels, (4) Service d'Aéronomie du CNRS, Verrières-le-Buisson, France.
chris@oma.be/Fax: +32-2-3748423

SPICAM-S, a part of SPICAM experiment flown at unsuccessful Mars 96 mission is a 20-kg solar occultation spectrometer. Technological/calibration flight of SPICAM-S was performed in October 1996 from Aire-Sur-l'Adour (South-Western France) at the altitude of 31 km. Spectra of the Sun were recorded at the sunset in the zenith angle range of 78°-88°. Two spectral channels of the instrument covered the spectral range of 300-600 nm in the UV-Visible with a resolving power of ≈ 500 , and the ranges of 1.8-2.5 and 34.7 μm in the IR with a resolving power of ≈ 1200 . We present the retrieval of atmospheric ozone, methane, and other gases from the obtained data. Two operational flight models of the SPICAM-S instrumentation are available in IASB-BIRA and can be refurbished for atmospheric studies in balloon-borne campaigns or from micro-satellites.