

- IVA-IVB.1.3. SAHAI Y. (Instituto de Pesquisas Espaciais-INPE, São José dos Campos, SP, Brazil), DRESCHER A. (DFVLR, Oberpfaffenhofen, FRG), LAUCHE H. (Max-Planck-Institut für Aeronomie, Lindau/Harz, FRG), and TEIXEIRA N.R. (Instituto de Pesquisas Espaciais, São José dos Campos, SP, Brazil). First Results of the 6300 Å Nightglow Measurements in the additional Rocket Program to the Satellite AEROS.

Height profiles of OI 6300 Å volume emission measured by rocket photometers are presented. These profiles are compared with the data of ground based photometers and ionosond measurements.

- IVA-IVB.1.4. BALABANOVA, V.N., BYCHKOVA, K.D., LEBEDINETS, V.N., MARTYNEKO, V.P., POKHUNKOV, A.A. (Hydrometeorological Service, Moscow, USSR). Experimental Data on the Atomic Nitrogen Content Variation in the Upper Atmosphere After Sunset.

Values of atomic nitrogen concentration at 140 km obtained after sunset (zenith angles 100-170°) at middle latitudes by the ethylene luminous cloud method indicate that the mechanism of N disappearance at night is more complex than predicted by theoretical calculations with or without allowance for certain nighttime sources of atomic nitrogen origin (Ströbel, Nicolet, Barth). One hour and 15 minutes after sunset, at 140 km, significant N content (10^{10} atom/cm³) which corresponds to the daytime N concentration was observed. Eight hours after sunset, the concentration of N considerably decreases and is not observed by the luminous cloud method with a sensitivity limit of $10^6 - 10^7$ atom/cm³ and by mass-spectrometers. On this basis one can assume that shortly after sunset at 140 km there are reasonably intensive sources of atomic nitrogen formation.

- IVA-IVB.1.5. TOHMATSU, T., IWAGAMI, N. (Geophysics Research Laboratory, University of Tokyo, Tokyo, Japan). WATANABE, T. (Department of Physics, Tokyo University of Education, Tokyo, Japan). Measurement of Nitric Oxide Distribution in the Upper Atmosphere.

A special ultraviolet photometer was designed, which can measure the gamma bands of nitric oxide in the day airglow. The photometer was found to be particularly useful in the observation with a small sounding rocket. An experiment with the new photometer was carried out at the sunset of