

RECENT RESULTS FROM THE MAESTRO UV-VISIBLE SPECTROPHOTOMETER ON BOARD SCISAT

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The MAESTRO (Measurement of Aerosol Extinction in the Stratosphere and Troposphere Retrieved by Occultation) spectrophotometer was launched on board the ACE (Atmospheric Chemistry Experiment) satellite in August of 2003. This Canadian science satellite was designed specifically to investigate the chemistry of the Arctic ozone layer during the late winter and early spring when ozone depletion takes place. The combined instrument complement of an infra-red Fourier Transform Spectrometer (ACE-FTS) and the MAESTRO spectrophotometer are making a comprehensive, simultaneous measurement set of the chemicals in the stratosphere that control ozone depletion.

MAESTRO comprises two diode-array, concave, holographic diffraction grating spectrometers covering the spectral regions 270 to 550 nm and 525 to 1000 nm. It is making measurements in both the occultation and backscatter observing modes. Operational products from the instrument include nitrogen dioxide, ozone and aerosol extinction from the occultation measurements. This paper will describe the MAESTRO instrument and its operational data analysis algorithms and will present some recent constituent profile results.