THE ATMOSPHERIC CHEMISTRY EXPERIMENT (ACE): INSTRUMENTS AND TESTING

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The Atmospheric Chemistry Experiment (ACE) is a Canadian satellite mission to investigate the chemical and dynamical processes that control the distribution of ozone in the stratosphere and upper troposphere. The satellite is scheduled to launch in the summer of 2003, carrying two spectrometers: a high resolution infrared Fourier transform spectrometer (ACE-FTS) and a UV/vis/NIR spectrograph known as MAESTRO (Measurement of Aerosol Extinction in the Stratosphere and Troposphere Retrieved by Occultation) both operating primarily in solar occultation mode. Testing of the two instruments was carried out in a thermal-vacuum chamber to simulate the operating conditions of space. Test procedures, results and some other aspects of the ACE mission will be described.