A NEW HIGH RESOLUTION 2 - 13 μm SOLAR SPECTRUM FROM THE ATMOSPHERIC CHEMISTRY EXPERIMENT, ACE

P. M. SHERIDAN, S. McLEOD, C. BOONE, and P. F. BERNATH, *Department of Chemistry, University of Waterloo, 200 University Avenue West, Waterloo, Ontario, N2L 3G1 Canada*.

The Atmospheric Chemistry Experiment (ACE), a Canadian Space Agency satellite mission to examine the chemical and dynamical processes involving ozone in the stratosphere and upper troposphere, was successfully launched in August 2003. On board the spacecraft is a high resolution (0.02 cm^{-1}) Fourier Transform Spectrometer operating in the 2 - 13 μm (750 - 4100 cm^{-1}) wavelength region. Recently, a solar spectrum free from telluric atmospheric interference has been obtained from the satellite. This spectrum has a higher signal-to-noise ratio than the one recorded by the NASA ATMOS mission nearly 20 years ago. New line identifications, as well as improved molecular parameters for CO, CH, NH, and OH (we hope) resulting from analysis of the ACE solar infrared spectrum will be presented and discussed.