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Spitzer mid-infrared spectroscopy of Uranus at equinox

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We present preliminary results from observations of Uranus at its 2007 equinox taken with the Spitzer Space Telescope's Infrared Spectrograph. Because of its unique (in our solar system) axial tilt with respect to its orbit, Uranus offers us a spectacular opportunity to witness the dramatic changes in a giant planetary atmosphere caused by the transition from hemispheric heating to pole-to-pole diurnal heating. Many complex molecules show emission and absorption features only visible in the thermal infrared wavelengths accessible by Spitzer. When combined with other efforts, these data will provide a multi-wavelength picture of the state of the Uranus atmosphere at equinox. These data can be used for comparison with Uranus' cousins in other solar systems.