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Abstract for an Invited Paper
for the DAMOP18 Meeting of
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Laboratory Spectroscopy for Exoplanets

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Recent results from our laboratory will be surveyed on the analysis of TiO spectra and preparation of line lists for NH, OH, OH⁺ using experimental measurements with a Fourier transform spectrometer for line positions and ab initio dipole moment functions for line intensities. Our measured cross-sections and line lists for high temperatures for small polyatomic molecules such as methane and ammonia will also be presented as well as measurements of infrared absorption cross-sections for small hydrocarbons.