INFRARED SPECTROSCOPY OF SMALL ORGANIC MOLECULES TO SUPPORT STUDIES OF PLANETARY ATMOSPHERES

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Quantifying the concentrations of gaseous species in atmospheres using optical remote sensing techniques rely on spectroscopy and is intimately linked to the availability of reference spectroscopic information. Ideally this information must be available at high spectral resolution and under a representative range of temperature and pressure.

The present work enters the frame of a project aiming to improve the spectroscopic information available or to provide missing information for several small organic molecules thought to be important in the atmospheres of planets and moons of the Solar System. It relies on Fourier transform spectroscopy to provide line-by-line information or absorption cross sections for the target species, mainly in the $600-2000$ cm^{-1} region. Current results on absorption cross sections of this recently started work will be presented and discussed.

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