ROTATIONAL SPECTROSCOPY FOR ASTROPHYSICAL APPLICATIONS: THE THZ FREQUENCY REGION

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Recent missions, such as the Herschel Space Observatory and the Stratospheric Observatory for Infrared Astronomy (SOFIA), have pointed out the need for precise and accurate frequency measurements and spectroscopic parameters in the THz range. In the present contribution, the THz spectrometer working at the University of Bologna and its applications are presented. The focus is here on the accuracy of the retrieved transition frequencies of neutral as well as ionic species and on line-broadening investigations.