THE VIBRATIONAL SPECTRUM OF THE DIMER OF FORMIC ACID IN THE GAS PHASE: ROOM TEMPERATURE AND JET–COOLED FT–DATA

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Absorption spectra of the gaseous (C_{2h}) dimer of formic acid were recorded from 20 to 11300 cm^{-1} using a high resolution Fourier transform spectrometer, at room temperature. Jet-cooled spectra were recorded over the range 1850 to 3750 cm^{-1} and liquid phase data were recorded in the NIR region. Some of the observed bands are vibrationally assigned, significantly extending the information available in the literature. The rotational structure of the ν_{15} fundamental *c*–type band in the FIR is partly unraveled and its hot band pattern considered in more details. Band contour simulation is performed for the jet-cooled $\nu_6 + \nu_{21}$ band, in the MIR, allowing the rotational temperature to be estimated to 35K, in the jet.

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