

ROTATIONAL INVESTIGATION OF THE ADDUCTS OF FORMIC ACID WITH ALCOHOLS, ETHERS AND ESTERS

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Mixtures of formic acid with methyl alcohol, with isopropyl alcohol, with *tert*-butyl alcohol, with dimethylether and with isopropylformiate have been supersonically expanded as pulsed jets. The obtained cool plumes have been analyzed by Fourier transform microwave spectroscopy. It has been possible to assign the rotational spectra of the 1:1 adducts of formic acid with *tert*-butyl alcohol, with dimethyl ether and with isopropylformiate. The conformational shapes and geometries of these adducts, as well as the topologies of their intermolecular hydrogen bonds will be presented. An explanation is given of the failure of the assignments of the rotational spectra of the adducts of formic acid with methyl alcohol and isopropyl alcohol.