

UNVEILING THE SWEET CONFORMATIONS OF KETOHEXOSES

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The conformational behavior of ketohexoses D-Fructose, L-Sorbose, D-Tagatose and D-Psicose has been revealed from their rotational spectra. A broadband microwave spectrometer (CP-FTMW)^a combined with a laser ablation (LA) source^b has been used to rapidly acquire the rotational spectra in the 6 to 12 GHz frequency range. All observed species are stabilized by complicated intramolecular hydrogen-bonding networks. Structural motifs related to the sweetness of ketohexoses are revealed.

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^bS. Mata, I. Peña, C. Cabezas, J. C. López, J. L. Alonso, *J. Mol. Spectrosc.* **2012**, 280, 91.