ROTATIONAL-PREDISSOCIATION DOUBLE RESONANCE SPECTROSCOPY OF THE He-HCO+ COMPLEX

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Cation-Helium complexes are interesting spectroscopic systems due to the floppy bond of the helium atom. He-HCO⁺ is a particularly interesting test system, as it is linear and has a $^{1}\Sigma$ ground state. So far experimental data have been limited to infrared studies on the ν_{1} C-H stretching mode of He-HCO⁺. In order to obtain high-resolution rotational data the recently developed rotational-predissociation double resonance method has been applied to this complex. Accurate molecular parameters will be presented and discussed.