THE S₁ - S₀ FLUORESCENCE EXCITATION SPECTRUM OF FORMIC ACID

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The fluorescence excitation spectrum of formic acid monomer (HCOOH) has been recorded under jet-cooled conditions in the region, 268-257 nm. A rotational analysis of the first four bands was used to establish the allowed and forbidden vibronic character of the transition as well as the torsional level splittings. A simulation of the torsional progression was carried out by ab-initio calculations at differing levels of approximation as a starting point for the refinement of the torsional and wagging potential functions.