

THE ROTATIONAL SPECTRUM OF *CIS*- AND *TRANS*-FORMIC ACID, REVISITED

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The initial experimental confirmation of the existence of the *cis* rotamer of formic acid, HCOOH, was based on a small number of pure rotational transitions in the microwave region [W. H. Hocking, *Z. Naturforsch.* **31a**, 1113–1121 (1976)]. Since then, there have been no further report of the observation of spectral features attributable to this species. In order to extend the study of the spectrum of *cis*-HCOOH we have recorded the far infrared spectrum of HCOOH from 30 to 100 cm⁻¹ (Oberpfaffenhofen). This spectrum has now been supplemented by millimeter wave measurements (Kharkov) and submillimeter wave measurements (Köln), so that a very extensive set of data is now available for both rotamers. The analysis of the spectrum (Giessen, Kharkov) has now yielded a more complete set of ground state constants for each rotamer than was previously available, providing in particular a sound basis for the search for infrared transitions of *cis*-HCOOH.

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