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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Global distribution of upper tropospheric formic acid from the ACE-FTS" *by* G. González Abad et al.

Anonymous Referee #2

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This paper describes an analysis of ACE-FTS spectra to retrieve the global distribution of HCOOH over an extended period of time. The paper is clearly written and the material is well suited for publication in Atm. Chem. Phys. This short paper is most likely a prelude to a more detailed comparison of observations with global atmospheric model calculations.

I recommend that the authors revise the paper somewhat to more clearly describe the differences in the HCOOH spectroscopic parameters used in the present retrievals. This is the single most important difference from previous studies but is not adequately discussed. The discussion needs to include the origin of the differences in the infrared line intensities as well as why are the recent measurements preferred over previous values. What was the HITRAN recommendation based on? It is also implied that the

new spectroscopic parameters result in better fits to the ACE-FTS spectra. This needs to be shown.

Minor comments: Typo: change “from the space” to “from space” in abstract Include reference to the new spectroscopic parameters in the abstract. Abstract: are the HCOOH concentrations “related” to vegetation or are they correlated with. . .

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 12465, 2009.