

Interactive comment on “The MPI-Mainz UV/VIS Spectral Atlas of Gaseous Molecules of Atmospheric Interest” by H. Keller-Rudek et al.

Anonymous Referee #2

Received and published: 5 September 2013

This paper describes the format and content of the Mainz UV/Vis online spectral database. The database was initiated by Roth and co-workers and managed for many years by Keller-Rudek and Moortgat; the database has been publicly available for ~10 years. This is a very useful reference database that contains a very complete coverage of the literature. The website and search capabilities have recently been overhauled and provide an improved user-friendly environment. It appears that the basic objective of this paper is to unveil the new website and bring the database to the attention of a broader audience. The paper is well organized and written and appropriate for publication in ESSD.

General comments for the authors and future database management consideration.

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Interpolated data sets: For many molecules cross section data sets of interpolated values are provided. In most cases, the original cross section data was not reported in this form but has been calculated by the database managers. This needs to be made more clearly in the notes. I personally do not find these data files useful and in most cases confuse the origin of the data. My recommendation would be to eliminate these files from the database.

Quantum yield tables: Table 5 in the paper gives an example of a quantum yield table. The formula contains (H+HCO) following the molecules name in several places. The (H+HCO) label indicates the photolysis channel but this nomenclature is unnecessarily confusing and should be revised for improved clarity to the user.

Graphics: Figures 2 and 3, which are representative of the figures in the database, are fine for the database presentations but are not of publication quality in terms of clarity and labeling.

Personal communications: There are numerous examples of cross section data obtained from personal communications, a number of which are from the database managers own work (some are also from papers prior to the age of electronic supplements). The data is in many cases probably the “best” data available but the database user has no means to substantiate these results if they do not appear in the peer-reviewed literature. Do the guidelines for the database allow including unpublished results, now and in the future?

Typo: Page 415: noughties should be eighties

Interactive comment on Earth Syst. Sci. Data Discuss., 6, 411, 2013.

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