Atmos. Chem. Phys. Discuss., 3, S2501–S2502, 2003
www.atmos-chem-phys.org/acpd/3/S2501/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "New insights in the global cycle of acetonitrile: release from the ocean and dry deposition in the tropical savanna of Venezuela" *by* E. Sanhueza et al.

W. Sturges (Editor)

w.sturges@uea.ac.uk

Received and published: 2 February 2004

The authors submitted a revised version of this paper taking into account the issues raised by the referees. This revised version was sent to the original referees for their further consideration. Their responses are given below:

(1) I recommend publication of the revised manuscript, since it raises interesting questions about the global cycle of acetonitrile. In particular the estimated large dry deposition of acetonitrile during night raises interesting implications. The hypothesis of an oceanic source vs. long-range transport is somewhat debatable; however it is striking that the authors don't see a substantial difference between mixing ratios in the dry and wet season. The authors should include the median range of acetonitrile con-

Full Screen / Esc
Print Version
Interactive Discussion
Discussion Paper

centrations that was observed at the Mauna Loa Observatory in Table 1: in the free troposphere the median was: 193 +/- 56 pptv, in the boundary layer the median was depleted due to oceanic uptake: 160 +/- 98 pptv. During events of long-range transport free tropospheric airmasses could reach median mixing ratios up to 209 +/- 48 pptv.

(2) I think it is fair to say that both reviewers, as well as the contributed comment from Detlev Sprung, indicated that the original manuscript was not 100% successful in convincing the readers that their interpretation of the measured acetonitrile data (invoking dry deposition and an ocean source) was the only one possible and in fact the most likely. The authors have clearly taken these comments seriously and have added a new Figure 1 and 3, which provide some additional evidence. In my opinion this paper can be published without further revision in ACP. The authors have presented new and interesting data, and have suggested a possible explanation that, if proven by further work, improves our understanding of the atmospheric chemistry of acetonitrile.

As a result of this favourable impression from the referees, the paper has now been accepted for full and final publication in ACP in its revised form. Please refer to the ACP pages to read the revised version.

Interactive comment on Atmos. Chem. Phys. Discuss., 3, 5275, 2003.