

Interactive comment on “A fate for organic acids, formaldehyde and methanol in cloud water: their biotransformation by micro-organisms” by P. Amato et al.

Anonymous Referee #2

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The paper describes the potential of ambient cloud water probes to develop bacterial cultures and in a second step laboratory investigations of these microbes to degrade partially oxidized volatile organic compounds, potentially competing with radical initiated oxidation. As an atmospheric chemist, I can hardly judge on the microbiological part of the paper. The described experiments are interesting and the methods seem sound. Nevertheless, I missed a clear connection between the bacterial development in ambient cloud droplets and the potential of these bacteria to degrade VOCs in laboratory based biodegradation experiments. Are the lab-based experiments transferable to the environment of an ambient cloud droplet? And if so, how important is this process for the chemistry in the droplets? Since ACPD is a journal dealing with atmospheric

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processes, I think its important to address these question, in particular the relative importance of microbial degradation and radical chemistry.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 5253, 2007.

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