

Interactive comment on “Critical assessment of the current state of scientific knowledge, terminology, and research needs concerning the role of organic aerosols in the atmosphere, climate, and global change” by S. Fuzzi et al.

U. Pöschl

poeschl@mpch-mainz.mpg.de

Received and published: 15 January 2006

I would like to thank the referees for their comments on the classification of organic aerosols by source type, especially Anonymous Referee #2 for the specific suggestion to rename the categories “Industrial POA & SOA” (ACPD, 5, S3963-S3966, 2005; classes 4.1 & 4.2) into “Anthropogenic Non-Combustion POA & SOA”, including organic aerosol components from meat cooking, road dust, and automobile brake and tire wear (ACPD, 5, S4179-S4184, 2005). This suggestion is very welcome and will

certainly be taken into account upon revision of the manuscript.

There is, however, a complication to be considered with regard to road dust. Depending on location and season, road dust may contain not only brake and tire wear but also fuel combustion and biomass burning particles (soot, ashes), and biogenic materials (soil/humic substances; animal, plant, and microbial debris).

To avoid confusion and double counting, it may thus be necessary to discriminate between OA components originating from fuel combustion, biomass burning, and biogenic materials contained in road dust as opposed to OA components directly emitted from fuel combustion sources (ACPD, 5, S3963-S3966, 2005; classes 2.1, 2.2, 3.1, 3.2,) and biological sources (natural ecosystems, soil/vegetation, etc.; ACPD, 5, S3963-S3966, 2005; classes 1.1, 1.2).

Note that these potential ambiguities are similar to the possibility of considering “Sea-Spray POA” (ACPD, 5, S3963-S3966, 2005; class 6.1) as a sub-set of “Biogenic POA” (ACPD, 5, S3963-S3966, 2005; class 1.1). I think that these aspects should be further clarified and elaborated as required in studies implementing and further developing the proposed classification of organic aerosols by source type.

Interactive comment on Atmos. Chem. Phys. Discuss., 5, 11729, 2005.

[Full Screen / Esc](#)[Print Version](#)[Interactive Discussion](#)[Discussion Paper](#)