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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Brown carbon absorption linked to organic mass tracers in biomass burning particles" *by* D. A. Lack et al.

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Reply to comment of M. Claeys

Thank you for your comment and valuable information on nitro-aromatic compounds. We will include reference to this, however due to the resolution of the aerosol mass spectrometer we cannot differentiate between nitrated aromatics and inorganic nitrates. 90% of the AMS-measured particle mass was organic matter, while 10% was estimated to be ammonium nitrate (Lack et al., 2012). Quantifying the nitrated aromatics would certainly be a valuable next step in assessing the contribution of specific compounds to brown carbon absorption however we cannot get to that point with the data we have.

Dan Lack

Lack DA, et al. (2012) Brown carbon and internal mixing in biomass burning particles. Proceedings of the National Academy of Sciences 10.1073/pnas.1206575109.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 29129, 2012.