

Interactive comment on “Chemical properties of rain events during the AMMA campaign: an evidence of dust and biogenic influence in the convective systems” by K. Desboeufs et al.

Anonymous Referee #3

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The paper is a well-written contribution to the understanding of rainwater chemistry in globally important and poorly characterized region. In spite of the low number of sampling events, the conclusions are robust and well-supported with experimental evidence. It seems that in certain cases the dust particles are highly prone to take up gaseous organic acids such as formic and acetic which then govern the acidity of the precipitation and perhaps assist in cloud nucleation of fine dust particles. My only concern with this paper is that such gas-to-particle interactions are not considered explicitly in the discussion: only in-cloud scavenging is mentioned (Page 15278 Line 24) which may not be so important for such volatile acids which have very low Henry constants. Apart from this, I suggest that the paper be published in ACP with minor revision.

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Interactive comment on Atmos. Chem. Phys. Discuss., 10, 15263, 2010.