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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 #1

Received and published: 26 July 2010

A more concise title would have been: "Chemistry of convective rain events in west Africa"

This is very informative paper on the ion chemistry including acid properties in rarely sampled yet important rain systems. These are the sizable convective rain systems that occur with regular frequency in the subtropics both on land and at sea. While the focus here is on such rain systems in West Africa; once over the ocean their chemistry can be critical for processing elements essential for surface organisms. All across the subtropical North Atlantic these convective events populate and indeed probably dominate the scavenging and transformation of dust originating upwind in the North-

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Eastern Sahara (Bodele) and Sahel (Harmattan) areas of Africa. The paper is well written and the quality of the results well articulated. The sensitive procedures for ion analysis are nicely documented. I recommend publication after attention to the following small details:

Page 15268, Line 25: It would be informative to also provide in the ion balance estimates of alkalinity/acid neutralizing capacity. Page 15271, Line 18: ...with the local dust...

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