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## **ACPD**

8, S9532-S9533, 2008

Interactive Comment

## Interactive comment on "Real time chemical characterization of local and regional nitrate aerosols" by M. Dall'Osto et al.

## **Anonymous Referee #1**

Received and published: 28 November 2008

Real time chemical characterization of local and regional nitrate aerosols M. Dall'Osto et al.

This paper presents an interesting analysis of a dataset containing high time resolution data (sub hourly) for the nitrate composition of fine particles in background air in London, as collected during a field campaign by two co-located 'real time' particle mass spectrometers, the TSI ATOFMS and Aerodyne C-ToF-AMS. By combining the true single-particle compositional capabilities of the ATOFMS with other information (such as size distributions, temporal trends, and air mass back trajectories), the authors distinguish two broad categories of nitrate-containing particles: locally-derived, particularly during night-time; and from long-range transport.

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Interactive Discussion

Discussion Paper



The manuscript is clearly presented and fluently written. The context and motivation of the work are clear. The analysis of the data is comprehensive and sound, and the results interesting. The manuscript should be accepted for publication in ACP.

Minor typographical points: (1) There are a number of instances where there is a missing space between 'm/z' and the associated positive or negative value, for example p19465 (line 2), p19466 (lines 2-10), p19468 (lines 23-27), p19469 (lines 2-6). (2) There are a few instances of inappropriate hyphenation of a word between two lines, for example p19459 (sulphate and despite), p19468 (nitrate), p19469 (nitrate). This latter issue was presumably not under the control of the authors.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 19457, 2008.

## **ACPD**

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