Interactive comment on “The Finokalia Aerosol Measurement Experiment – 2008 (FAME-08): an overview” by M. Pikridas et al.

Anonymous Referee #3

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The authors present an overview of observations made during a one month measurement period in Finokalia, Greece.

The paper should be published after a couple of issues have been addressed.

The authors state as objective number 3 “improved understanding of the mechanisms of in-situ formation of particles in the area”. The instrumentation at the site included an AIS to monitor particles from 0.8-40nm. Yet the authors fall short in discussing the results from this instrument. At least the campaign overview should be shown as is the case for other data such as the SMPS data in figure 12.

The use of ANOVA as statistical method for deriving correlations of time series should be motivated and the underlying implicit and explicit assumptions that are made when applying ANOVA must be described.

The authors state at a number of places in the manuscript that together with other species water was measured with the AMS. Since there are a number of issues associated with the measurement of water in an AMS (evaporation in the lens inlet system, interference from other species such as sulphate and organics) the authors should detail how the water concentration was derived and which assumptions were made with respect to the above mentioned potential artefacts. Also the authors should show how the AMS measured water compares to water derived by DAASS measurements.

Minor comment:

While table 1 states that SO2, HNO3 and HCl were measured from impregnated glass fibre filters and NH3 from impregnated paper filters, the text (p6650) states the opposite - please clarify.