Supporting online material for

Origins and composition of fine atmospheric carbonaceous aerosol in the Sierra Nevada Mountains, California

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This pdf includes:

Figs. S1 to S3

Figure S1. Regression of OOA versus acetonitrile separated into the hot and cold periods. This plot illustrates the good correlation during the hot period and this slope was used to estimate the likely biomass burning contribution (BBOA) to OA from the acetonitrile measurements. The lack of correlation during the cold period (inset) indicates that biomass burning was likely not an important source of OA in the cold period.

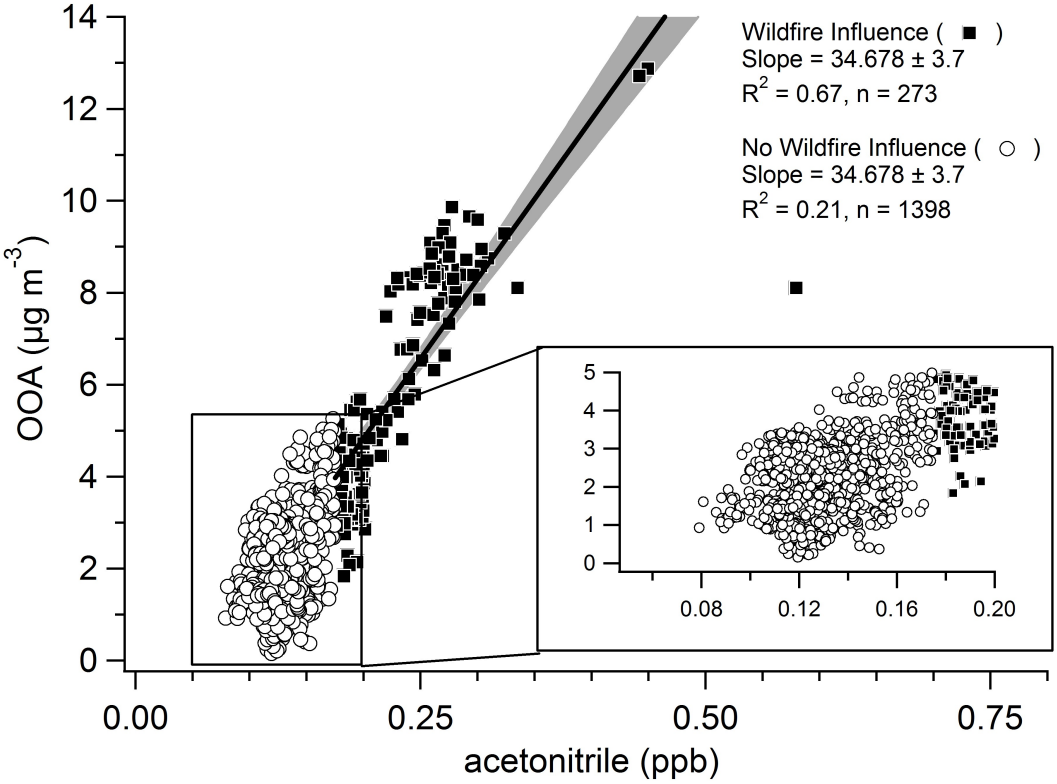

Figure S2. Comparison of organic carbon (µg C m^{-3}) measured by the AMS and the high volume filters. X-axis error bars represent the standard deviation in the averaged AMS data and y-axis error bars are the total uncertainty in the filter organic carbon measurements.

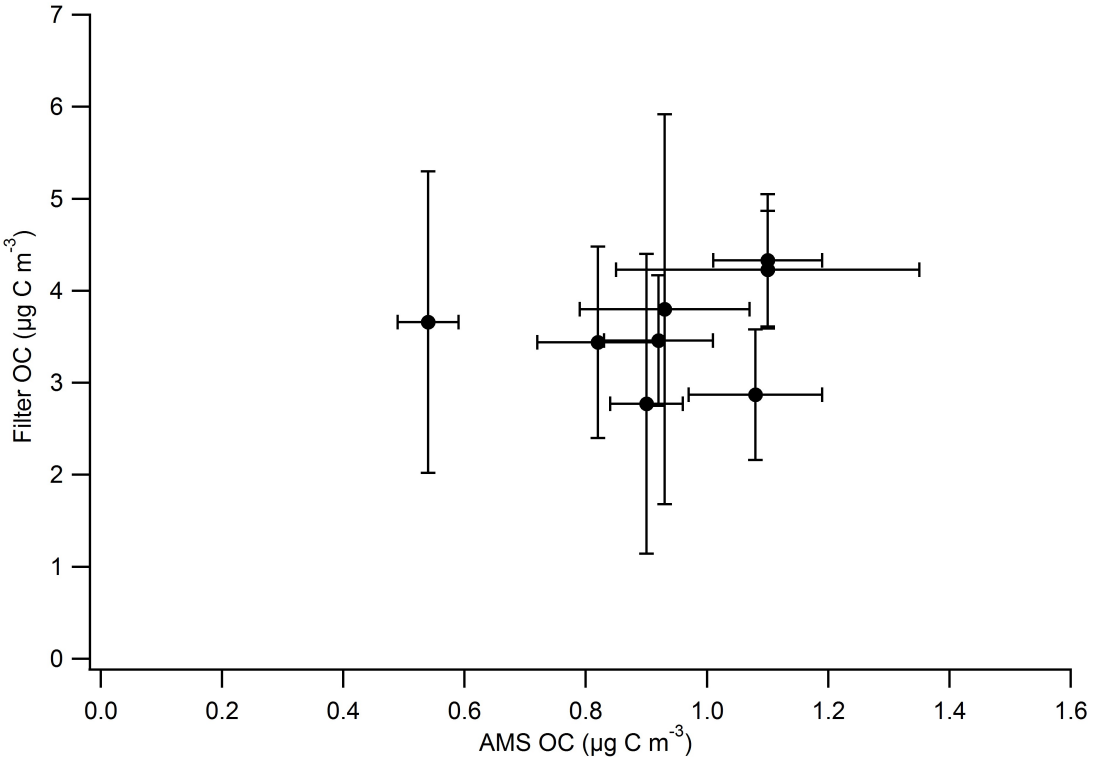

Figure S3. Correlation of CO (open circles) to organic aerosol (OA) during both meterological periods at BEARPEX. The OA data was filtered for acetonitrile > 0.175 ppb to remove the influence of biomass burning sources of OA. The CO data was filtered by windspeeds > 1 m/s to remove generator spikes that influenced the site under stagnant conditions. The OA data has been converted to µg sm^{-3} (at 273 K and 1 atm) for consistency with previous studies [*DeCarlo et al.*, 2010; *Cubison et al.*, 2011].