

# Investigating biomass burning aerosol morphology using a laser imaging nephelometer

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## Supplementary.

Figure S1 shows a correlation plot for the total integrating aerosol scattering at 405 nm for Fire A.

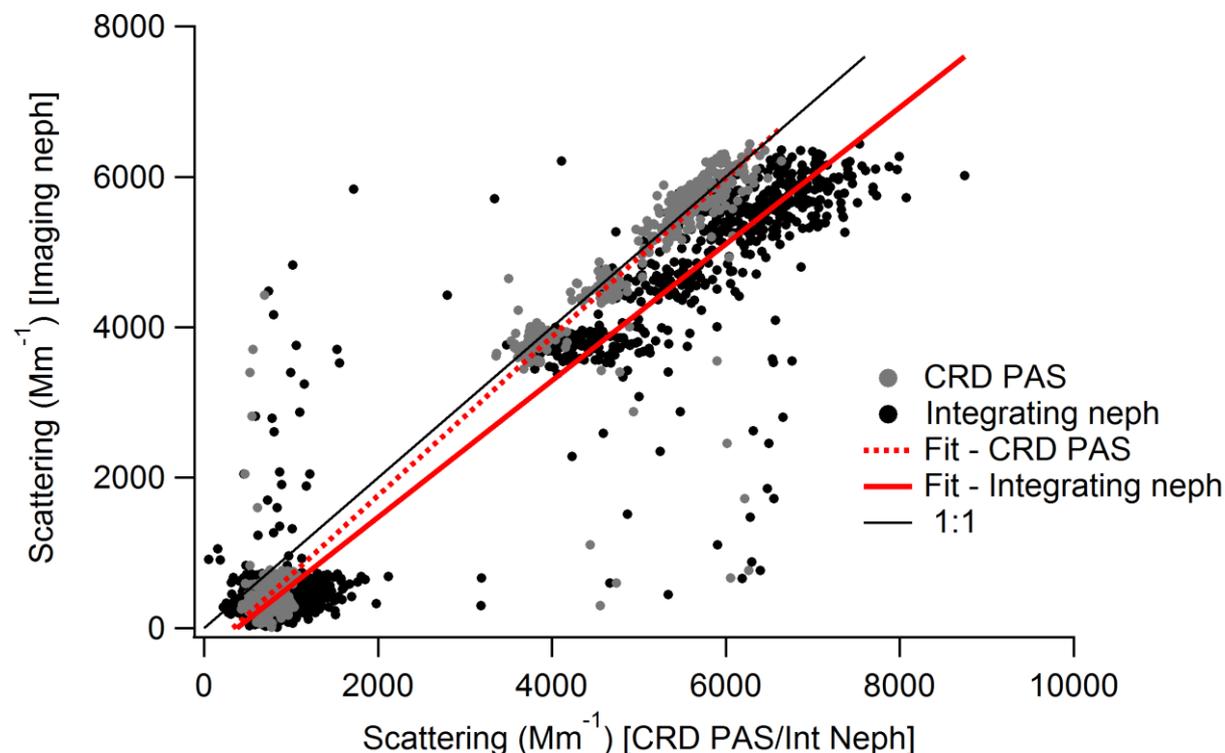
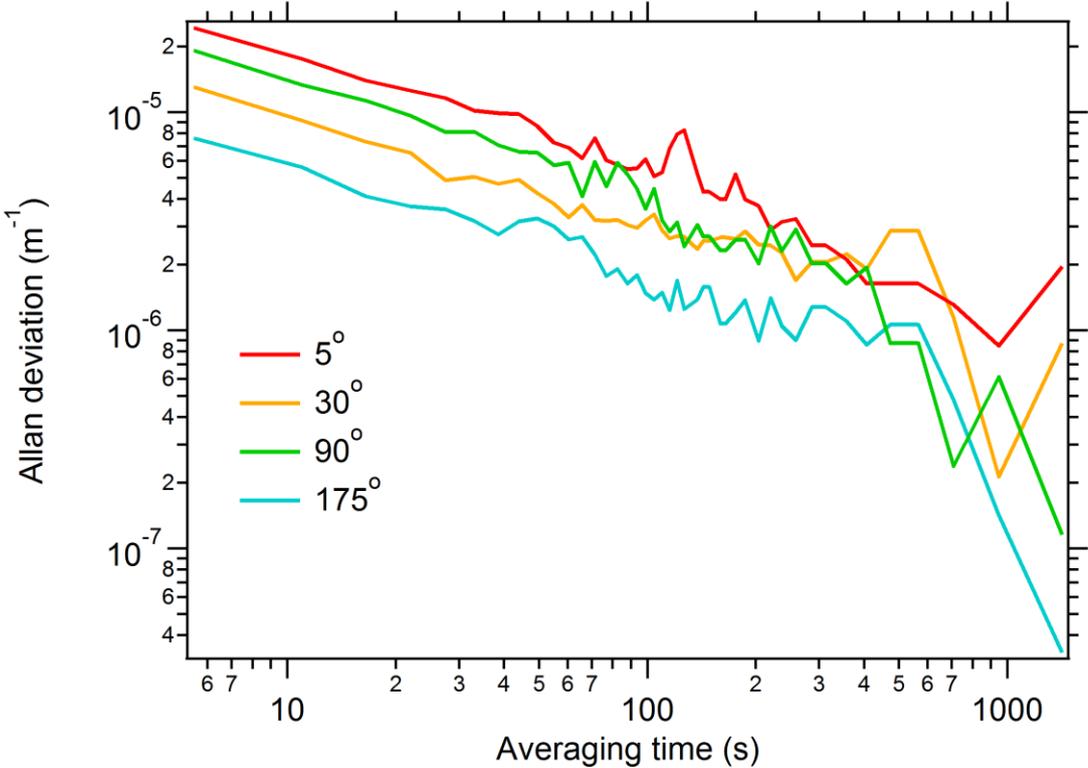


Figure S1: Correlation plot of integrated scattering at 405 nm for Fire A. The slope for the imaging nephelometer measurements vs CRD PAS measurements (grey dots, dashed red line) is 1.056. The slope for the imaging nephelometer measurements vs integrating nephelometer measurements (black dots, solid red line) is 0.908.

Figure S2 shows an Allan-Werle deviation plot for scattering signal integrated over a single angle bin (each  $\sim 0.5^\circ$ ) at several measurement angles. This was determined by continuously imaging the phase function of a clean air sample and removing the Raleigh scattering component to measure a “zero” phase function.



5 Figure S2: Allan-Werle deviation plot for individual scattering angle bins (each  $\sim 0.5^\circ$  bin size). Data collected for particle-free air (Rayleigh scattering contribution removed).