

Interactive
Comment

Interactive comment on “Aerosol optical properties in the southeastern United States in summer – Part 1: Hygroscopic growth” by C. A. Brock et al.

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The power law gamma approximation of the extinction hygroscopic growth assumes a metastable aerosol in an RH regime of continuous growth. The fit falls apart at low RH values where f_{RH} values are essentially 1.0 over an extended RH range, i.e. the curve flattens out. For aerosol with a high inorganic composition you run the risk of the aerosol efflorescing below 30% RH. Try anchoring the fit at the lower RH value around 30-40% and the gamma fit will work much better. Assume that extinction growth is negligible from the low RH value of 11% to \sim 40% RH. Adjust the lower RH value in your fit to 30-40%. The fit will work much better. In future measurements set the RH in

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the low RH extinction cell to \sim 30-40%.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 25695, 2015.

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