



Surface-Bulk Partitioning of Organic Material in Aqueous Aerosols

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Surface-active organic material has been hypothesized to form films on aqueous aerosol particles. Surface film formation could affect aerosol CCN activity by decreasing surface tension and altering bulk solute concentrations. Aerosol heterogeneous chemistry and ice nucleation may also be affected by surface organics. We will present new data on surface-bulk partitioning of organics in aqueous aerosol mimics. The following systems were studied via pendant drop tensiometry: a) oligomeric material formed by mixtures of glyoxal and methylglyoxal and b) the slightly-soluble organics oleic and stearic acid. The effect of aerosol pH and salt content on surface tension was tested for each system. Implications for surface film formation in atmospheric aerosols and aerosol CCN activity will be discussed.