Airborne Soil Organic Particles

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Atmospheric particles often include heterogeneous internal mixtures of inorganic and organic components within the same individual particles, which contentiously evolve in the atmosphere as a result of their multi-phase chemistry. This presentation will give an overview of recent field and laboratory studies of atmospheric particles where novel complementary methods of chemical imaging and molecular characterization were used by the presenter and his colleagues with an overall goal to understand reaction chemistry between particle components, chemical transformations of particles during atmospheric aging, their environmental and climate impacts. In particular, we will show first results and field evidence of solid airborne soil organic particles produced through a previously unrecognized atmosphere – land surface interactions