



Chemical composition size distribution and atmospheric aging processes of organics in aerosol particles

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The organic component of atmospheric aerosol affects its physical and chemical properties and hence its environmental roles. During the ageing of atmospheric particles, the organic component undergoes chemical reactions and physical processes that modify its properties. In this talk we will describe field and laboratory studies that probe parts of the organic fraction of biomass and mineral dust particles. We will describe the chemical composition and size distributions of fresh and aged particles. Special emphasis will be given to the water soluble part of smoke particles from Brazil and to the interaction of dust with urban pollution. Complementary laboratory studies on chemical reactions of aerosol-bound organics and their consequences (such as the formation of high molecular weight products and the ability to of the aerosols to interact with clouds) will also be presented.