

# Source and Transformation of Atmospheric Aerosol Particles: from Typical Aerosol Particles to the Emerging Micro- and Nano-plastics



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Atmospheric aerosol particles play an important role in human health, air quality, and global climate. Aerosol particles can come from different sources and undergo a dynamic transformation in the atmosphere, significantly altering their physicochemical properties and influencing their environmental impact. In this talk, I will discuss the important source and atmospheric processes that affect aerosol particle chemical composition. Firstly, I will present the results from field campaigns in the Pearl River Delta with an aerosol mass spectrometer to identify the sources and formation of aerosol particles, in addition, machine learning was applied to predict organic aerosol concentrations in this region. The dynamic transformation of aerosol particles by the uptake of organic vapors in the environmental chamber will also be discussed. I will also talk about my current work in developing a novel online mass spectrometry method to characterize the surface chemical composition of aerosol particles. Finally, I will bring you to my new vision of atmospheric micro- and nano-plastics, an emerging source of aerosol particles that impact air quality, human and ecological system health, and climate change.

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**Zoom Link: [Here](#)**



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