

# **Atmospheric Droplets: The Role of Interfacial Chemistry in Cloud Droplet Formation and Hygroscopic Growth of Aerosols**

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Recent experiments reveal the importance of surface tension depression by interfacial molecules in cloud droplet formation and hygroscopic growth on mixed organic/inorganic aerosols. For realistic mixed inorganic/organic aerosols, the droplet sizes either at activation or at high relative humidity exhibit a more complex relationship than would be predicted based upon bulk solubility alone and points to the important role that surface chemistry plays in droplet growth. I will highlight the main features of this mechanism and discuss current uncertainties in developing a molecular understanding droplet surfaces in the atmosphere.