

# **Aerosol Evolution in Supersonic Flows**

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Droplets and particles can be efficiently produced by condensation in supersonic flows. In the energy industry, this effect is being exploited industrially to remove water and higher hydrocarbons from raw natural gas. From a scientific standpoint, droplets formed by condensation can be essentially free of impurities and are, therefore, a naturally clean system in which to study the kinetics of freezing. This talk will summarize the research we have been conducting using small angle X-ray scattering to investigate nanodroplet formation, growth, and freezing in supersonic flows.