Ryan Sullivan

Professor at Carnegie Mellon University

Pittsburgh, PA, US

Ryan Sullivan's research includes developing aircraft-deployable analytical instrumentation to characterize particles in the atmosphere.

Biography

Ryan Sullivan has a background in atmospheric and analytical chemistry, single-particle analysis, heterogeneous kinetics and cloud nucleation research. His research interests include the development of improved aircraft-deployable analytical instrumentation to characterize individual particles in the atmosphere in real-time. These instruments are used to investigate the physicochemical properties of atmospheric particles emitted and produced from a variety of sources, the chemical processes they experience during atmospheric transport, and how these processes modify the ability of particles to nucleate both cloud droplets and ice crystals, thus altering cloud properties and the Earth?s climate. These research endeavors involve equal parts instrument development, laboratory experiments and field measurements.

Industry Expertise

Environmental Services, Energy

Areas of Expertise

Water Treatment, Phase Transitions, Environmental Systems, Aerosol-Cloud Interactions, Air Quality, Microfluidic Systems, Mass Spectrometry

Education

University of California at San Diego
Ph.D. Chemistry

University of California at San Diego
M.S. Chemistry

University of Toronto
B.S. Chemistry