Overview of Fog Studies during the California Regional PM$_{10}$/PM$_{2.5}$ Air Quality Study (CRPAQS)

Jeffrey A. Goldset, Jr., Sukhyeon Lee, Neil Chang, and Pierre Mather, Colorado State University, Department of Atmospheric Science, Fort Collins, CO

Yuping Hu and Daisuke Higashi, Tokyo Metropolitan University, Department of Environmental Engineering, Tokyo, Japan

Background

The purpose of the CRPAQS study was to understand the composition of fog in the San Joaquin Valley (SJV) and its impact on regional air quality.

Measurements

Fog samples were collected during the CRPAQS study using a large-volume sampler. The samples were analyzed for various chemical and biological components.

Observations of vertical profiles and fog deposition

Observations were made using a vertical profiling instrument and a fog deposition model.

Modeling of fog chemistry

A model was developed to simulate the chemical composition of fog. This model considered the sources and sinks of chemical species and their interactions.

Uranium matter in the droplets

Uranium was detected in the fog droplets using a high-resolution mass spectrometer.

All data and figures are available in the reference list.