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## Overview of spatial and temporal distributions of speciated mercury

**Huiting Mao**

State University of New York, USA

A multitude of sources and sinks of gaseous elemental mercury ( $\text{Hg}^0$ ), reactive gaseous mercury (RGM), and particulate matter mercury ( $\text{Hg}^p$ ) and their highly heterogeneous spatiotemporal distributions determine that ambient concentrations of speciated mercury vary greatly in time and space. This overview will characterize the distributions of  $\text{Hg}^0$ , RGM,  $\text{Hg}^p$  concentrations in environments from the tropics to the Polar Regions, from land to oceans, from urban to rural locations, from the sea level to high elevation, and from the planetary boundary layer to the free troposphere. Furthermore, temporal variabilities on diurnal to interannual scales for speciated mercury concentrations will be reviewed for various geographical environments. Current understanding of potential mechanisms leading to such spatiotemporal variations of speciated mercury will be presented. This overview is aimed to synthesize worldwide, state-of-the-art measurement data from the literature.

### Biography

Huiting Mao completed her PhD in 1999 from the State University of New York at Albany. She is currently Associate Professor at the Department of Chemistry of the State University of New York College of Environmental Science and Forestry. Her research spans a wide range of topics in air quality and climate, including regional to global mercury budgets. She has published over 60 papers in high impact journals.

[hmao@esf.edu](mailto:hmao@esf.edu)