

Progress on atmospheric Hg stable isotope research

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A decade of research on the natural variations in mercury (Hg) stable isotope abundances has shown large variations across biogeochemical reservoirs. These variations result from the gradual separation of heavy/light or even/odd Hg isotopes during the numerous physicochemical processes that shuttle Hg across the Earth's surface. As a result, a Hg isotopic measurement gives rise to multiple isotope fingerprints that may characterize its source, or code for the transformations that Hg has undergone in the past.

In this presentation we will review Hg isotope observations of atmospheric Hg. We will show how Hg isotopes may help answer outstanding questions on atmospheric Hg cycling, and we will discuss opportunities for Hg isotope tracing of Hg emission sources.