

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY COLLOQUIUM
UTAH STATE UNIVERSITY

SEPT
23
2020

*Recent developments in the measurement of
reactive mercury concentrations and
chemistry*

For ~20 years, researchers and monitoring agencies have used the Tekran system to measure atmospheric mercury (Hg). This instrument is configured to measure gaseous elemental, gaseous oxidized, and particulate bound Hg. Gaseous oxidized and particulate bound Hg make up reactive Hg consisting of Hg(II) forms. Through work with others it has been demonstrated that the Tekran does not measure reactive Hg accurately and concentrations are biased low. This instrument also has no calibration system for reactive Hg. We have developed a sampling system for reactive Hg that entails the use of membranes.

Cation exchange membranes are used for measurement of concentrations and nylon membranes are used to determine the chemistry of the compounds. Identification of the compounds is something that has never been done. Compounds identified make sense based on data collect in Hawaii, Nevada, Utah, Maryland, and Svalbard, Norway.

4-5PM (MDT) | Zoom

Meeting ID: 991 3991 8394

Passcode: 4W3tYY

Mae Sexauer Gustin, PhD

PROFESSOR, ENVIRONMENTAL CHEMISTRY
NATURAL RESOURCES & ENVIRONMENTAL SCIENCE
UNIVERSITY OF NEVADA, RENO

