

Séminaire

Mercredi 21 Mai 2014, 10h

Salle Louis Liboutry, LGGE

Dr. Nelson O'Driscoll

***Canada Research Chair in Environmental Biogeochemistry
& Associate Professor***

Mercury Photoreactions in Freshwater and Snow

Mercury is a globally dispersed contaminant that bioaccumulates to harmful levels in aquatic organisms in both industrially impacted and remote locations. While we know quite a lot about how mercury enters an ecosystem we know much less about loss processes. Photochemical reduction and volatilization is the primary loss mechanism for mercury in freshwater and snow. This presentation will overview both fieldwork and controlled experiments used to quantify the effects of solar radiation on mercury speciation in freshwater and snow. To date, most mercury photochemistry studies been field studies where environmental conditions (temperature, irradiation intensity) are variable. Our research combines this approach with controlled laboratory experiments that facilitate the study of mercury photochemical reactions in frozen and liquid phases. Recent research on Arctic snow will be presented as will work from temperate freshwaters.