Biogeochemistry CERC laboratory, University of Manitoba

CERC Lab has capacity to study several physical, chemical and biological processes in sea ice, seawater, sediment and atmosphere. State-of-the-art instrument such as gas chromatograph, Isotope Ratio Mass Spectrometer, Isotopic Water Analyzer and X-ray Computer Tomography are some of tools located in this laboratory.

Instrumentation:

- Isotope Ratio Mass Spectrometer (SerCon 20-22) coupled with Europa EA-GSL for determination of δ13C and δ15N, for gas, aqueous, and solid samples analyses.

- Isotopic Water Analyzer for δ18O and δD, (L2130-*i* , Picarro)

- X-ray Computer Tomography (SkyScan/Bruker 1174 - 50kV with 6-30 um pixel size magnification of sample) for structure analysis (e.g.: ice)

- Gas Chromatograph (SRI 8610C) for analysis of CO2, CH4, O2, Ar, N2O with FID, TCD, and ECD detectors

- Dissolved Inorganic Carbon Analyzer (Apollo Scitech AS-C3)

- Total Alkalinity Analyzer (TIM840, Radiometer)

- Spectrophotometer (UVmini-1240, Shimadzu)

- Microscopes (M125, DM IL LED, DM 2500M, Leica)

For additional information, contact:

Principal investigator: Dr. Søren Rysgaard Soeren.Rysgaard@umanitoba.ca

Research/technical staff: Dr. Marcos Lemes marcos.lemes@umanitoba.ca