



Seminar Series

Winter 2024

Hybrid
Alex 265

Friday,
March 8

12 – 1pm

Dr. Nagissa Mahmoudi

Department of Earth and Planetary Sciences, McGill University

Picky eaters: Exploring the selective diet of marine microorganisms in past and present oceans



Light refreshments will be served

Marine sediments cover almost ~75% of the Earth's surface and are one of the largest global reservoirs of organic carbon. **Microorganisms play a primary role in the decomposition of organic matter in marine sediments.** Consequently, the activity of these microorganisms can have profound impacts on both local and global biogeochemical cycles. A major question in carbon biogeochemistry is determining what controls the accessibility or bioavailability of organic matter to microorganisms. It is not clear whether microorganisms themselves are ultimately controlling the degradation rate or whether it depends primarily on chemical and physical properties of the compounds and/or the depositional setting and sediment composition. **In this presentation, I will focus on new insights into the dynamics of organic matter degradation using novel isotopic approaches and explore how microbial metabolic potential and interactions can influence carbon mobilization in modern and ancient oceans.**

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