

OCGC Seminar

Exploring the selective diet of microbes in modern and ancient marine sediments

Dr. Nagissa Mahmoudi

Assistant Professor, Department of Earth and Planetary Sciences
McGill University

Thursday, November 9, 2023, 11:30 AM

Carleton University
Herzberg Laboratories
Room 3120

Jeudi le 9 Novembre 2023, 11h30

Carleton University
Herzberg Laboratories
Chambre 3120 HP

Coffee will be available from 11:00 AM
Virtual Format: Zoom Meeting ID: 931 6218 3293; Passcode: 272763

<https://carleton-ca.zoom.us/j/93162183293?pwd=TFJlTW1BdkNlTGJvWWxHK0swbkdaQT09>

Abstract: 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 can influence carbon mobilization in sediments.

Speaker Bio: Dr. Nagissa Mahmoudi is an Assistant Professor in the Department of Earth and Planetary Sciences at McGill University. She received her undergraduate degree from the University of Toronto and completed her Ph.D at McMaster University. Subsequently, she completed a postdoctoral fellowship at Harvard University where she developed new approaches to investigate the microbial controls on organic carbon transformation in marine environments.

For further information, or to arrange to meet the speaker, please contact Lyle Nelson (Lyle.Nelson@carleton.ca)

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