

# Montana Tech Public Lecture Series



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## Rocks, Hot Water, Microbes, and More: Diving to Seafloor Hot Springs



### Alysia Cox

Chemistry & Geochemistry

Montana Tech

Thursday, February 21, 2019

4 p.m. in CBB-102

Hydrothermal processes and water-rock reactions are an integral part of deciphering the origin and evolution of life on Earth and other planets. Life's limits result from fluid chemistry dependent upon host rock composition and reaction progress. I will share recent results and video footage taken by the Deep-Submergence Vehicle (DSV) Alvin from my recent journey to 2522 meters depth in the ocean to sample seafloor hydrothermal vents at the East Pacific Rise off the coast of Central America.

***Dr. Alysia Cox** is an Assistant Professor of Environmental Chemistry. She grew up in Michigan and moved to Arizona State University (ASU), completing a B.S. summa cum laude in Geological Sciences with minors in Biology and German. She earned her PhD in Chemical Oceanography at the Massachusetts Institute of Technology MIT Institution. After postdoctoral work at ASU and the Swiss Federal Institute of Technology, Dr. Cox started the Laboratory Exploring Geobiochemical Engineering and Natural Dynamics (LEGEND) at Tech. Her research combines geochemistry with biochemistry to determine active mechanisms of chemical reactions with wide application to the environment.*