

Serhat Sevgen, University of Calgary, Alberta, Canada for his project:
Examining the kinetics of Fe-brucite silicification and hydrogen generation.

Serhat Sevgen is a PhD candidate in the Department of Earth, Energy, and Environment at the University of Calgary (Canada), working under the supervision of Dr. Benjamin Tutolo. He earned his bachelor's degree in Geological Engineering from the Middle East Technical University, Turkey (METU). During his undergraduate studies, he developed a strong interest in the co-evolution of Earth and life throughout geological history, which led him to shift his academic focus.



He went on to pursue a master's degree in Oceanography at the METU Institute of Marine Sciences, where he specialized in hydrothermal fluid geochemistry. His research interests center on how geochemical processes shaped the early Earth environment and contributed to the origins of life. To address these questions, he combines laboratory experiments, computational geochemical modeling, and fieldwork in extreme environments such as deep-sea hydrothermal vents and hypersaline lakes.

In his current research, Serhat focuses on experimental investigations of mineral transformation reactions that generate molecular hydrogen, a key energy source for microbial life on early Earth. He also works with Archean-age rocks, applying a suite of high-resolution analytical techniques to trace the natural analogs of processes observed in his experiments. He thanks the Howard and Jean Lipman Foundation and the Geological Society of America for their support.