

CO₂ Mineralization for *in situ* Storage and *ex situ* Enhanced Metals Recovery



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- 2009 PhD @ U of Bremen (Germany)
- 2009-2011 Postdoc @ CSIC Granada (Spain) & WHOI
- 2011-2015 Assistant Scientist @ WHOI
- 2015-2020 Associate Sci. @ WHOI
- 2020-present Associate Sci. w tenure @ WHOI
- WHOI Seafloor Samples Lab Steering Committee member
- Northeast National Ion Microprobe Facility Steering Committee member
- Associate Editor @ GCA

Technology or focus area

- Fluid-rock interactions in oceanic environments
- Deep submergence vehicles (ROV, HOV, AUV)
- Scientific drilling
- Analytical geochemistry & spectroscopy
- Hydrothermal laboratory experiments
- Thermodynamic modeling

Ideas, Interests, Concepts to be Explored

- Mineral carbonation of serpentinite
- Ni-Fe-Co-O-S phase relations
- Hydrogen (H₂) and methane (CH₄) formation
- Seafloor weathering of serpentinite (within EEZ)
- Tectonic implications of carbonation in fault zones