

# Processes and consequences of serpentization

## [Seminario](#)

**Data:** Giovedì, 22 Gennaio, 2015 - 11:30

**Relatore:** Wolfgang Bach

**Abstract:**

Serpentinization is a process that turns dry, dense, mechanical strong and weakly magnetic peridotite into a low-density, mechanically weak, and highly magnetic rock with >10 wt.% H<sub>2</sub>O. The chemical and physical changes of this transformation are so radical that the implications of serpentization in all geotectonic settings where it occurs are extreme. Moreover, serpentization fluids are rich in hydrogen which drives abiotic organic synthesis and supports unique ecosystems that are believed to be excellent analogues of hydrothermal sites where life may have originated.

I shall present an overview of what our current understanding of the mechanisms and rates of serpentization is and discuss some of the ramifications of serpentization in different geotectonic settings with a focus on submarine hydrothermal springs.

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