

Session: “**Biominerals and environmental mineralogy**”.

Convenors: Giovanni De Giudici, Kareen Hudson-Edwards, Juraj Maizlan, Kevin Rosso

Biominerals in recent decades have received growing interest from a large interdisciplinary scientific community. Biominerals play a pivotal role in biogeochemical cycle of elements in the geological record. Thus, understanding biomineralization processes in many different environments allows us to have a deep knowledge of natural risk, of changes related to anthropic activities, and of the possible resilience of the environment to change. Moreover, investigating biominerals allows the development of technologies for environmental sustainability, and offers diverse and fairly numerous examples to devise useful biobased materials.

This session is intended to strengthen the collaborative interaction among environmental mineralogists and is open to the whole scientific community interested in biominerals, sustainability and related technology development. The session acknowledges studies on biominerals at the molecular scale, the interface between minerals and organisms, the kinetics of (bio)mineral growth, communities of microbial and other organisms that individually or collectively drive biomineral processes. Moreover, this session invites contributions on biobased-environmental-technologies such as wetland systems, water treatment and bio-metallurgy. Finally, investigations on biominerals relevant to health are also welcome.