

## IMA2022 Session Proposal

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Session Title: Minerals under extraterrestrial conditions

### Description:

The investigation of planetary bodies has been under continuous development especially with the advent of sample return missions and last-generation remote-sensing techniques. In particular, the study of extraterrestrial minerals is fundamental for shedding light on the origin and evolution of the Solar System bodies. Remote-sensing techniques together with laboratory studies on meteorites, micrometeorites, interstellar grains as well as experiments on planetary analogues and analyses of sample return materials allow us to better understand and constrain the processes involved in shaping Solar System bodies. Planetary materials and in turn their constituent minerals are subject to space weathering processes such as meteoroid bombardment and solar wind irradiation. These processes cause the alteration of mineral chemistry and structure, and they also contribute to the excavation of planetary surfaces which can generate new meteoritic materials and can sample portions of the impact target.

In this session we will bring together all the different aspects of planetary mineralogy to enjoy this fascinating mineral science world and to promote fruitful discussions and synergic collaborations. We invite and welcome contributions from the broad field of mineral investigation on extraterrestrial materials and analogues. Contributions that cover characterization of minerals under extraterrestrial conditions, study of planetary bodies and meteorites as well as in-situ experiments to remote-sensing data are encouraged.