

Special Issue

Stable Isotope Geochemistry for Future Planetary Exploration and the Search for Life beyond Earth

Message from the Guest Editors

The 2022 Planetary Science and Astrobiology Decadal Survey highlighted both in situ measurements and laboratory analyses of returned samples as high priorities for the coming decade; isotope analyses were called out as key measurements in many of these investigations. Due to the breadth of this subject, we are soliciting original research contributions from experimentalists, analysts, modelers, observers, and in situ flight instrument developers. The timeline of planetary exploration requires a long view. We therefore particularly encourage those who are pioneering new techniques in stable isotope geo- and cosmochemistry for the interrogation of extraterrestrial organics to consider submitting manuscripts to this Special Issue. Defining the abiotic isotopic background of a planetary body is a crucial step towards assessing its habitability and recognizing possible biosignatures; therefore, we also strongly encourage contributions that focus broadly on the characterization of the stable isotope compositions of a planetary body's inventory of inorganic volatiles and products of abiotic organic synthesis. Of note, we are not soliciting mission concept papers in this call.

Guest Editors

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Life (ISSN 2075-1729) is an international, peer-reviewed open access journal that publishes scientific studies related to fundamental themes in life sciences. Some papers are published individually, while others are submitted for inclusion in special issues with guest editors. You are invited to contribute a research article, essay, or a review to be considered for publication.

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