# Special Issue

# Inorganic Materials for Applications in Extreme Environments

## Message from the Guest Editor

Currently available advanced materials are often pushing the boundaries of endurance, maintaining stability under challenging conditions like exposure to high/cryogenic temperatures, high pressures, high strains, or UV/laser/particle irradiation. These materials can be used in such challenging environments as space, engines, or nuclear reactors. They include, e.g., ultra-high temperature ceramics such as carbides or nitrides, composites, or metal alloys. On the other hand, nature often exposes materials to extreme conditions like, for instance, in the center of the Earth or inside a volcano. Lessons learnt from these natural environments could help to design materials for applications under extreme conditions. Much progress has been made in the field of materials under extreme conditions, linked to advances in the development of instrumentation. The characterization of these materials can be challenging and critical for their applications. Understanding how materials respond to extreme conditions and changes in their structure and dynamics, often with the occurrence of phase transitions, is of crucial importance.

## Guest Editor

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## Deadline for manuscript submissions

closed (30 June 2025)

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**an Open Access Journal by MDPI**

**Impact Factor 3.0**
**CiteScore 5.3**

mdpi.com/si/205576

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# About the Journal

## Message from the Editor-in-Chief

Inorganic chemistry remains a lynchpin of modern chemistry, not only embracing the function and reactivity of combinations of most elements of the periodic table, but also providing a footing for studies of materials, catalysts, drugs, fuels and industrial chemicals. Arguably, the role and reach of inorganics in society have never been as great as today. Adventurous research at the heart and at the extremes of inorganic chemistry is vital to further advances and Inorganics offers authors the opportunity to publish exciting new research in an open access format.

## Editor-in-Chief

Prof. Dr. Duncan H. Gregory
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