

Special Issue

Physicochemical Characterization of 2D Materials

Message from the Guest Editors

Two-dimensional materials are becoming a hot topic in the modern research community, mostly due to their promising chemical, electrical, physical, and optical properties. Since the first discovery of graphene, an increasing number of 2D materials have been reported. In addition to graphene, these include TMDCs, silicene, phosphorene, MXenes, metal oxide nanosheets, etc. A fundamental question that remains unclear has to do with understanding the origin of the aforementioned promising properties. Two-dimensional materials can be developed through a variety of physicochemical techniques/ approaches, which can generally be classified as either top-down techniques such as mechanical exfoliation, solution processing, and electromechanical exfoliation or bottom-up techniques such as chemical vapor deposition (CVD), hydrothermal synthesis, and pulsed laser deposition (PLD). To understand the origin of these promising physicochemical properties, a comprehensive investigation of structure–property relationships in 2D materials is required, which can be facilitated by a combination of experimental characterization techniques and theoretical modeling.

Guest Editors

Dr. Melita Menelaou

Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology, Limassol 3036, Cyprus

Dr. Martina Vrankić

Division of Materials Physics, Ruđer Bošković Institute, HR-10000 Zagreb, Croatia

Deadline for manuscript submissions

31 December 2025



Inorganics

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 4.1



mdpi.com/si/200977

Inorganics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
inorganics@mdpi.com

[mdpi.com/journal/
inorganics](https://mdpi.com/journal/inorganics)





Inorganics

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 4.1



[mdpi.com/journal/
inorganics](https://mdpi.com/journal/inorganics)



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

School of Chemistry, University of Glasgow, University Avenue, Glasgow
G12 8QQ, UK

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Chemistry, Inorganic and Nuclear) / CiteScore - Q2 (Inorganic Chemistry)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.6 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2025).