



## Ionic-Liquid-Based Materials and Their Multi-functional Applications

Guest Editors:

**Dr. Daniela M. Correia**

Centre of Chemistry, University of  
Minho, 4710-057 Braga, Portugal

**Dr. Carlos Miguel Costa**

Centre of Physics, University of  
Minho, 4710-057 Braga, Portugal

**Dr. Senentxu Lanceros-  
Mendez**

BCMaterials, Basque Center for  
Materials, Applications and  
Nanostructures, UPV/EHU  
Science Park, 48940 Leioa, Spain

Deadline for manuscript  
submissions:

**closed (31 December 2024)**

### Message from the Guest Editors

Dear Colleagues,

The smart and multifunctional materials field is steadily growing, with increasing impact in a significant number of application areas, such as sensors, actuators, transducers, energy harvesting and storage, among others. Among these materials, high-performance materials based on polymers and polymer-based hybrid materials are the most frequently used due to their processing versatility and tailorable response. Depending on the desired application, the development of hybrid polymer-based materials is often necessary in order to obtain the specific functionalities and characteristics of ionic liquids (ILs); these stand out due to their versatility in terms of functional responses, tuneability, and their ability to be integrated into polymer matrices.

In this context, this Special Issue will focus on the development of advanced polymer-based hybrid materials based on polymer matrices with different ionic liquids in order to tailor composites, blend characteristics, and functional responses for advanced applications.

**Keywords:** hybrid materials; composites and blends; ionic liquids; advanced applications





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Maurizio Battino

Department of  
Odontostomatologic and  
Specialized Clinical Sciences,  
Sez-Biochimica, Faculty of  
Medicine, Università Politecnica  
delle Marche, Via Ranieri 65,  
60100 Ancona, Italy

## Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Inorganic Chemistry)

## Contact Us

---

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/ijms  
ijms@mdpi.com  
X@IJMS\_MDPI