



Glass-Ceramics: Improving Glass Properties through Crystallization

Guest Editors:

Dr. Araceli De Pablos Martin

Otto Schott Institute of Materials
Research, Friedrich Schiller
University Jena, Fürstengraben 1,
07743 Jena, Germany

Dr. Giulio Gorni

CELLS-ALBA Synchrotron, Carrer
de la Llum 2-26, 08290
Cerdanyola del Vallès, Spain

Deadline for manuscript
submissions:

closed (28 February 2021)

Message from the Guest Editors

Glass-ceramics are inorganic, non-metallic materials prepared by a controlled crystallization process of glasses. Most glass-ceramics reported so far are based on silicate glasses but phosphate, borate, oxyfluoride and chalcogenide glass-ceramics were also prepared, showing the wide variety of compositions and crystal phases that can be obtained.

The advantages of glass processing demonstrated the possibility of preparing glass-ceramics in different forms such as bulk, films, powders, fibres, etc., with applications spanning from passive or active optical materials, to electrically conducting or insulating materials, up to biomaterial or systems with high mechanical resistance or extremely low thermal expansion coefficient.

This Special Issue aims to share recent achievements in the field of glass-ceramics with special attention to the relation between processing, micro/nanostructure and the improved physical properties obtained because of crystallization. Studies involving the use of synchrotron radiation-based techniques for the study of glass-ceramics are very welcome.





crystals



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University
of Pisa, 56126 Pisa, Italy

Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Author Benefits

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

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [Inspec](#), [CAPus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Crystallography*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Crystals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/crystals
crystals@mdpi.com
[X@Crystals_MDPI](#)