



Sustainable Approach in Synthetic Ceramic Materials

Guest Editors:

Prof. Dr. Barbara Liguori

ACLabs—Applied Chemistry Labs,
Department of Chemical,
Materials and Industrial
Production Engineering,
University of Naples Federico II,
P.le V. Tecchio 80, 80125 Naples,
Italy

Dr. Fabio Iucolano

Department of Chemical
Engineering, Università degli
Studi di Napoli Federico II,
Naples, Italy

Deadline for manuscript
submissions:

closed (30 October 2020)

Message from the Guest Editors

Ceramics represent some of the earliest and most environmentally durable materials for engineering. Crystalline ceramics include the traditional silicates and the many oxide and non-oxide compounds that are widely used in both traditional and advanced technologies. A sustainable approach could regard either the raw materials or the processes. First of all, secondary raw materials and other natural and industrial by-products, currently disposed of as waste, can be viewed as a green opportunity in the synthesis of ceramics in order to move towards an industry with a circular economy. Several chemical and thermal methods can be adopted to prepare ceramics (particles or monoliths) by starting from the conventional solid-state process, precipitation, hydrolysis, pyrolysis, hydrothermal methods, or the sol-gel technique. An attractive goal is a green and environmentally friendly approach to the design of the synthesis process.

This Special Issue invites original research contributions and reviews dealing with the synthesis, production, and characterization of ceramic materials based on sustainable raw materials and/or processes.





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](#)