



Metamaterials and Metasurfaces for Microwave and THz Applications

Guest Editors:

Dr. Kerlos Atia Abdalmalak

Prof. Dr. Raed Shubair

Dr. Ayman Althuwayb

Prof. Dr. Bal S. Virdee

Deadline for manuscript
submissions:

closed (31 August 2023)

Message from the Guest Editors

With the rapid development of devices working at microwave and THz ranges, metamaterials and metasurfaces have attracted increasing attention. For instance, in wireless systems (such as communication, sensing, and wireless power transfer applications), metamaterials play an essential role in antenna design, where sub-wavelength unit cells are combined with standard antenna topologies to enhance their performance in terms of bandwidth, gain, polarization conversion, reconfigurability, and many other aspects.

Even in the aforementioned applications, devolvement is not restricted to antenna design but includes other system perspectives. Although early research on metamaterials was largely oriented towards systems in the microwave and optical regions, recently it has been extended to millimeter-wave and THz frequencies as candidates for fulfilling the THz gap where efficient modulators, switches, and other components can be designed.

This Special Issue is dedicated to recent advances in the development of systems based on metamaterials in the microwave and THz ranges.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University
of Pisa, 56126 Pisa, PI, 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](#), [Ei Compendex](#), [CAPlus / 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](#)