# **Special Issue**

# Application and Molecular Mechanisms of Microwaves for Materials Processing

# Message from the Guest Editor

The main aim of the Special Issue "Application and Molecular Mechanisms of Microwaves for Materials Processing" is to promote new theoretical, experimental, and computational research as well as new designs and developments of devices used to process, characterize, or develop new materials using a microwave field. The main topics of this Special Issue are: using microwaves for molecular material synthesis: microwave-induced effects on the molecular structure of materials; microwave-related physical chemistry and chemical physics; characteristics of plasmas created by microwave radiation; processing, characterization, or synthesis of materials using a microwave field. This Special Issue also focuses on employing advanced nanomaterials characterization techniques such as terahertz time-domain spectroscopy (THz-TDS) or other microwave characterization techniques, IR-VIS-UV optical emission spectroscopy (OES), photoacoustic spectroscopy (PAS), FT-IR or Raman spectroscopy, TEM, SEM, XRD, and XPS to understand the interaction between microwaves and matter.

## **Guest Editor**

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#### Deadline for manuscript submissions

20 April 2026



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# Message from the Editor-in-Chief

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### **Editor-in-Chief**

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