



Dielectric Ceramics: Structure, Characterization, and Application

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Deadline for manuscript
submissions:

closed (20 August 2023)

Message from the Guest Editors

Dielectric ceramics have become indispensable components in numerous devices due to their multifunctional property and are, at the moment, basic building block of every electronic device. Their physical characteristics, which are dependent on structure, composition, shape, and morphology, allow modelling the dielectric, ferroelectric, piezoelectric, and optical properties. Different types of dielectric ceramics have been used for application in energy storage devices, also in the form of a capacitor as a passive element in analogue and digital electronic circuits. These materials have occupied a prominent place in a range of industries including the telecommunications sector, in particular in wireless, and are increasingly widespread and used due to particularities, such as relative low power consumption, high performance, and thermal stability.

The purpose of this Special Issue is to compile the physical principles of dielectric ceramics operation, the advanced preparation processes of these materials in the micro and nanometric dimensions, the discussion and analysis of the electrical response as a function of their structural and morphological characteristics.





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Message from the Editor-in-Chief

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