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Novel Dielectric Materials: Innovations and Applications

Guest Editor:

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Deadline for manuscript submissions:
closed (30 June 2022)

Message from the Guest Editor

Dear Colleagues,

Human society is becoming more and more dependent on electricity. Thus, based on the capability of controlling/storing charge and electrical energy, dielectric materials have attracted great attention. Examples of these materials, all of which require tailored dielectric properties, include high-permittivity (k) materials for capacitors, low-k materials for 5G and transformers, dielectric elastomers for electroactive generators/actuators, thermally conductive materials for high-voltage packing, and flexible/biological materials for intelligent devices.

Therefore, a comprehensive understanding of the chemistry and physics, the surfaces and interfaces, and the composition and microstructure of dielectric materials will be extremely important. Research on polarization mechanisms, technologies of material preparation, and even novel detection methods is needed to develop the means of adjusting and controlling dielectric materials.

The aim of this Special Issue of Materials is to attract articles covering any aspects of new dielectric materials, including material development, microstructural optimization, and novel implant designs.

Prof. Junwei Zha
Guest Editor

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Message from the Editor-in-Chief

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