



Ferromagnetic, Ferroelectric, and Multiferroic Oxide Nanopowders, Nanoceramics, and Thin Films

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Message from the Guest Editor

Oxide compounds of multiferroics are most in demand because of their chemical resistance during domestic use, as this is operation in an oxidizing air atmosphere. Ferrites, complex oxides of iron cations with various crystal structures such as the structure of perovskite, spinel, garnet and magnetoplumbite, are the basic class of compounds for the search for room temperature multiferroics, since they most often have spontaneous long-range magnetic and dielectric orders. The production of iron oxide compounds in nanoform, such as nanopowders, nanoceramics and thin films, very often leads to the desired results due to the appropriate distortion of the unit cell and the appearance of conditions for the occurrence of spontaneous polarization. The combination of intense values of spontaneous magnetization and polarization in nanoscale iron oxide compounds is very promising from a practical point of view.





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Message from the Editor-in-Chief

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