



an Open Access Journal by MDPI

New Trends in Ferroelectric Nanocomposites Materials: Characterization, Properties and Applications

Guest Editors:

Dr. Vladimir Shvartsman

Institute for Materials Science, Universitat Duisburg-Essen, Universitätsstraße 15,45141 Essen, Germany

Dr. Maxim Silibin

National Research University of Electronic Technology – MIET Bld. 1, Shokin Square, 124498 Zelenograd, Moscow, Russia

Deadline for manuscript submissions: closed (20 March 2022)



Message from the Guest Editors

Dear Colleagues,

Nowadays, the development of ferroelectric nanocomposite materials, including polymer-inorganic, multiferroic, or ferroelectric-relaxor composites is attracting a considerable interest. The combination of different phases not only results in an improvement in the functional properties of the components, but can also lead to emergence new synergetic functionalities. Ferroelectric composites find applications in actuators, sensors, energy storage and harvesting devices, energy converters, memory elements, etc.

This Special Issue of *Materials* aims to highlight and summarize recent trends in synthesis, properties, and applications of ferroelectric nanocomposites. Different kinds of composites: polymer-inorganic, multiferroic, ceramic-ceramic, etc. with various connectivity (3-0, 3-3, 3-1, 2-2) are covered. Contributions in the areas of experimental studies and theoretical modelling, macroscopic and nanoscale characterization of these materials as well as development of devices based on them are welcomed.

Dr. Vladimir Shvartsman Dr. Maxim Silibin *Guest Editors*







an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and svstems. advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials. materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/materials materials@mdpi.com X@Materials_Mdpi