

Special Issue

Domain Boundaries in Ferroelectrics

Message from the Guest Editor

The editors of Crystals magazine are planning to publish a thematic issue of the journal devoted to domain boundaries in ferroelectrics. The purpose of this publication is to present in a concentrated manner the current state of research in this area and the likely practical applications of effects related to domain boundaries. It is assumed that this issue of the journal will contain experimental and theoretical review articles on the following key sections for these objects:

- Calculation of the structure of ferroelectric domain walls and the magnitude of the lattice potential barrier from the first principles;
- Calculation of the structure of domain walls in ferroelectrics as part of a phenomenological consideration;
- Description of the laws governing the motion of domain walls in ferroelectrics in various field ranges;
- Charged domain boundaries;
- Interaction of domain boundaries with defects;
- Features of the structure and motion of domain walls in nanoscale ferroelectrics (thin films, composites, ferroelectric superlattices);
- The practical use of ferroelectric domain walls in memory devices, radio electronics, etc.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

Prof. Dr. Alessandra Toncelli

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