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Local Structure and Phase Transitions of Ferroelectric Materials

Guest Editors:

Dr. Yasuhiro Yoneda

Materials Sciences Research Center, Japan Atomic Energy Agency

Prof. Dr. Seiji Nakashima

Graduate school of engineering, University of Hyogo, Kobe, Japan

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Message from the Guest Editors

The phase transition temperature of a ferroelectric substance is usually defined by the change in crystal structure. Since the interaction between dipoles is a longrange correlation, the polarization mechanism of ferroelectrics can be strictly determined by the average structure. However, useful ferroelectric and piezoelectric properties have been found for substances whose polarization mechanism is difficult to understand only by using the average structure as represented by relaxor ferroelectrics. For this group of materials that are only partially ordered, we must clarify not only the average structure but also the local structure.

We invite researchers to contribute to this Special Issue, which intends to serve as a unique multidisciplinary forum covering the broad aspects of science, technology, and application of ferroelectric materials modulated by local structure. Potential topics include, but are not limited to:Relaxor ferroelectrics and related materials

- Domain engineering and domain modulated phenomena
- Ferroelectric nanocrystals
- Observations inside ferroelectric domains
- Artificial nanostructures
- Observation methods for nanoscale structures









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Editor-in-Chief

Prof. Dr. Alessandra Toncelli Department of Physics, University of Pisa, 56126 Pisa, PI, Italy

Message from the Editor-in-Chief

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