



Advances in Magnetic Hysteresis—In Memory of Prof. Dr. Sergey Borisovich Leble

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Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to provide a valuable forum for scientists to share their new findings related to both fundamental and applied research on magnetic hysteresis, which is a key property of all ferromagnetic materials. In this issue, special attention will be paid to two scientific problems. The first is predicting the behavior of a magnetic system during magnetization reversal, taking into account the known parameters of the system. Here, the most important topics are the fundamental theory of ferromagnetism and the modeling of hysteresis processes. The second is the determination of intrinsic properties of materials based on the observed magnetic hysteresis. On this basis, the topics to be covered can include but are not limited to:

1. Theory and modeling of magnetic hysteresis

2. Magnetic hysteresis *versus* material composition and properties

Keywords

- magnetic anisotropy ; magnetic hysteresis ; domain walls ; micromagnetics ; multiferroics ; thin films ; *ab initio* theory of ferromagnetism ; exchange interaction ; hysteresis curve computation ; Brown equations ; FORC

