



Synthetic, Natural and Natural-Synthetic Hybrid Magnetic Structures: Technology and Application

Guest Editors:

Dr. Kamil Gareev

Department of Micro and Nanoelectronics, Saint Petersburg Electrotechnical University "LETI", 197022 Saint Petersburg, Russia

Dr. Ksenia Chichay

International Research Center "X-ray Coherent Optics", Immanuel Kant Baltic Federal University, 236022 Kaliningrad, Russia

Deadline for manuscript submissions:

closed (20 July 2023)

Message from the Guest Editors

This issue is devoted to the study of magnetic structures, including magnetic nanoparticles, of three main classes: synthetic structures, natural structures, and hybrid natural–synthetic structures. The issue also addresses theoretical modeling tasks, the practical use of these magnetic structures in solving technical and biomedical problems is also considered.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

1. Magnetotactic bacteria, being in nature, cultivation, isolation of magnetosomes;
2. Features of physical and chemical properties and magnetic state of magnetosomes;
3. Magnetic structures based on natural magnetic ores, their study, and possible applications;
4. Synthetic magnetic structures, including nature-like and biomimetic;
5. Hybrid magnetic structures based on synthetic and natural components for microwave absorption, biomedicine, and other applications;
6. Micromagnetic modeling of natural, synthetic, and hybrid magnetic structures;
7. New methods of synthesis and study of magnetic structures.

