Special Issue

Ferrimagnetic Materials: State of the Art and Future Perspectives

Message from the Guest Editor

Since the beginning of the 1990s, with the introduction of organic lig□ands between magnetic cations, magnetochemistry has seen significant development. This molecular “do it yourself kit’’ has allowed us to synthetize new ferrimagnets (initially considered by Néel to be exclusive anti□ferromagnets). As a result, through the full control of their micro□scopic magnetic properties, it is now possible to impose the ferromag□□ netic or antiferromagnetic character of ex□change energy, the magni□tude of the magnetic moment per site, the dimen□sionality of spin lattices (1*d*, 2*d* or 3*d*), transport properties, notably in the field of molecular elec□tronics and magnetic semiconductors, but also the hysteresis pheno□me□non important for industrial applications. Simultaneously, new theo□reti□cal modeling challenges have emerged. **Keywords**

Ferrimagnetism
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ferromagnetism
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Ising (z–z) couplings
x–y couplings
insulator
magnetic semiconductor
molecular electronics

Guest Editor

Dr. Jacques Curély
Department of Physics, University of Bordeaux, CEDEX, 33405 Talence, France

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Magnetochemistry
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
magnetochemistry@mdpi.com

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About the Journal

Message from the Editor-in-Chief

Magnetochemistry constitutes a multidisciplinary field where chemists and physicists not only study magnetic properties but also design and synthesize chemical compounds with desired magnetic properties. *Magnetochemistry* is inviting contributions in any field related with this area, such as theoretical models, crystal engineering, molecular magnetism, SMM, SIM, SCM, SCO, magnetic nanostructures, magnetic MOFs, magnetic recording, qubits, magneto-caloric materials, etc. Our goal is to share your contribution in a timely fashion and in a manner that will be valued by the scientific community.

Editor-in-Chief

Prof. Dr. Carlos J. Gómez García
Department of Inorganic Chemistry, Faculty of Chemistry, University of Valencia, C/Dr. Moliner 50, 46100 Burjasot, Spain

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