Special Issue

Study on the Growth and Performance of Materials under Magnetic Field

Message from the Guest Editors

Magnetic fields have long been considered significant means to investigate the magnetic properties of materials. With the development of growth and assembly methods, magnetic field, similar to conventional reaction conditions such as temperature, pressure, and surfactant, has been developed as a new parameter for growing and assembling special structures (mainly through magneto-hydrothermal synthesis, magnetic-field-assisted laser deposition, etc.). Moreover, some advanced experiments have recently revealed fascinating magnetically induced enhancements in photoelectrocatalysis, batteries and so on, which received a great deal of attention due to their efficiency, tunability, and feasibility. Magneto-electrochemistry provides a new, effective, and general strategy to improve the activity of electrode materials and mass transfer, which will be a significant future development direction. This Special Issue of Magnetochemistry aims to provide a valuable forum for scientists to share their most recent novel findings on the growth and assembly of materials, and on electrode material performance under magnetic fields, as well as their related mechanisms.

Guest Editors

Dr. Lin Hu

High Magnetic Field Laboratory of Chinese Academy of Sciences, Hefei Institute of Physical Science, Hefei 230031, China

Prof. Dr. Qianwang Chen

Hefei National Laboratory for Physical Sciences at Microscale, Department of Materials Science & Engineering, University of Science and Technology of China, Hefei 230026, China

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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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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