Special Issue

Advances in Machine-Learning-Assisted Nanomaterials: Applications in Simulation, Detection, Classification, and Imaging

Message from the Guest Editors

Nanomaterials have recently brought substantial scientific, technological, and social development, driving science through intriguing and challenging routes. The most remarkable impacts are in medicine, electronics, sensors, energy production, and storage, besides environmental applications. New technologies have allowed the synthesis of unique nanomaterials with increasingly varied and versatile properties. However, optimizing the preparation and characterization of these nanomaterials and their composites demands new tooling. In particular, machine learning (ML) models can bring unprecedented advantages to the classification process and even quantification of nanomaterials, even allowing the fine-tuning of their properties. Thus, this Special Issue of *Materials* is focused on nanomaterials, nanocomposites, their applications, and ML tools developed to assist in obtaining, classifying, quantifying, and understanding the properties of these materials. We hope that new ideas will promote the fast development of the exciting area of nanomaterials. We invite you to contribute to this Special Issue by submitting papers on your best research activities.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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