Special Issue

Atomic Force Microscope (AFM) for Sensing, Imaging, and Measurement

Message from the Guest Editor

Atomic force microscope is a critical sensing tools for the investigation of zero-dimensional (quantum dot and nanoscale liquid), one-dimensional (carbon nanotube) and two-dimensional (graphene and transition metal dichalcogenide monolayers) materials. The aim of this Special Issue is to bring together and specify various methods for sensing, imaging and measurement through the use of atomic force microscope-based advanced technology for revealing intrinsic properties of nanomaterials with the following themes: 1) High-resolution imaging via an AFM; 2) Electrical measurement via an AFM as a Kelvin probe force microscope (KPFM), conductive AFM (C-AFM) and piezoresponse force microscopy (PFM); 3) Optical apparatus combined with an AFM for sensing the energy structure of materials; 4) Young's modulus measurement of organic/inorganic materials via an AFM; 5) Sensing and imaging of the magnetic micro/nanomaterials via a magnetic force microscope (MFM); 6) The development and application of advanced AFM systems related with energy-related materials, semiconducting materials, etc.

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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