

Special Issue

Plasma Diagnostics and Discharge Physics for Materials Processing

Message from the Guest Editor

Plasmas, comprising energetically charged particles and high reactive neutrals, have played a key role in state-of-the-art material processing, such as surface processing, material fabrication, and particle synthesis. To study factors and indicators, which directly influence processing quality and efficiency, numerous plasma diagnostics have been developed, including: electrostatic probes, microwave probes, optical emission/absorption spectroscopy, etc. These diagnostics have contributed to optimization, improvement, and development of material processing through elucidating the mechanisms underlying processing. This Special Issue aims to present recent developments in plasma diagnostics and findings related to discharge physics for material processing. The Issue will cover various diagnostic methods and discharge physics for material processing utilizing plasma under either non-thermal equilibrium (non-LTE) or LTE conditions, regardless of operation pressure, such as plasma etching/deposition, plasma-enhanced atomic layer etching/deposition, surface coating/modification, particle/material synthesis, plasma catalysis, plasma combustion, plasma nitridation, etc.

Guest Editor

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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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