Special Issue

Advances in Plasmas

Message from the Guest Editor

As is already known, plasma produced by electrical discharge generates lot of charged particles, reactive species, UV radiation, and heat. Since all these by-products of plasmas are effective agents for various materials, plasma technology has been applied to the production of high-performance functional materials in the last few decades, in spite of the difficulty in the diagnosis of plasma in contact with materials. Also, plasma can exist in a variety of forms and have various physical, chemical, and optical behaviors due to discharge modes created in different ways, resulting in a broad range of applications. Plasma technology related to the production of functional materials is known to play an important role in a variety of applications, such as sensors and displays, printable electronics, packaging, medicine, agriculture, energy production/harvesting, transportation, and aerospace technology.

This Special Issue is to provide a comprehensive overview of the recent advances in the field of materials using plasma processes, from the fundamentals of physicochemical processes of plasma sources to applications such as material synthesis, surface modification and plasma devices.

Guest Editor

Prof. Dr. Jae Young Kim
School of Electronic and Electrical Engineering, College of IT Engineering, Kyungpook National University, Daegu 41566, Korea

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

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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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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