Special Issue

Modification of Materials with Ion/Plasma Beams

Message from the Guest Editors

The use of continuous or pulsed beams of ions or plasmas has become general practice in many different areas of industry. They are used, for example, in the modification of material properties by the annealing of crystal lattice defects, quenching, remelting, the synthesis of new phases or new materials, the synthesis of non-equilibrium structures, the formation of surface morphology, and the improvement of materials' features. They are also used to improve the properties of ready-made tools. This Special Issue will present current investigations and applications of ion and/or plasma beams in the material engineering field. It will provide an opportunity to present new, often unconventional, applications of these methods in the different fields of our life. Keywords:

- ion implantation
- plasma treatment
- modification of material surfaces by ion and/or plasma beams
- improving material/tool features
- synthesis of new materials
- synthesis of non-equilibrium structures
- new applications
- perspectives of the using ion and/or plasma beams

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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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