Special Issue

Advances in Plasma and Laser Engineering

Message from the Guest Editor

This Special Issue is intended to provide a description of devices and processes related to the advances in plasma and laser engineering. Plasma is called the fourth state of matter because its properties differ significantly from those of ordinary gas. Plasma can be determined as a conductive medium generated by the ionization of gases. Therefore, it occurs as a mixture of photons, electrons and ions, but it can also contain neutral atoms and molecules.
A laser is a device that emits electromagnetic radiation in the visible, ultraviolet or infrared range, using the phenomenon of forced emission. Laser radiation is coherent, usually polarized, and has the form of a beam with very little divergence. In a laser, it is easy to obtain radiation with a very small line width, which is equivalent to very high power in a selected narrow spectral region. Plasma and laser applications include, but are not limited to, the production of new materials and the improvement of the properties of existing materials. The plasma or laser treatment of materials may lead to physico-chemical changes in the structure of their surfaces.

Guest Editor

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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.

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