Special Issue

Laser Applications in Polymers

Message from the Guest Editor

Laser-based techniques constitute attractive alternatives for the processing of polymers, affording the sought versatility and reliability. Examples are laser-induced periodic surface structuring (LIPSS), laser foaming, and other techniques based on laser ablation, as laser interference lithography (LIL). All these methods can be used to fabricate substrates with a variety of high-precision patterns at different length scales. More recently, specific laser processing techniques, taking advantage of optical trapping or of plasmonic enhancement effects, have been developed and applied to the nanopatterning of soft polymer materials. In general, laser-based techniques can be applied to many different materials in noncontact and flexible set-ups under a great variety of environments. This Special Issue "Laser Applications in Polymers" aims to gather contributions on recent advances about the use of laser techniques in polymer science, concerning analysis, thin film fabrication, surface and bulk modification and, micro- and nanostructuring, and considering both fundamental studies and the potential applications of the modified polymer materials.

Guest Editor

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Deadline for manuscript submissions

closed (20 January 2022)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/26716

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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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