Special Issue

Nanopatterning of Bionic Materials

Message from the Guest Editor

Nanopatterning of Bionic Materials is a rapidly growing field to tailor special industrial, medical, and scientific applications. This is significantly driven by the exciting properties of micro- and nanopatterned materials found in natural biological species, including self-cleaning, adaption of color and reflectivity, pronounced adhesive and anti-adhesive properties, wetting and directional fluid transport, reduction of wear and friction, control of cell growth, and antimicrobiotic properties. The nanopatterning techniques addressed here focus on developments in areas of laser, plasma, and e-beam processing. This includes direct writing techniques such as laser-writing, e-beam or UV lithography, two-photon polymerization, and laser-induced forward transfer, as well as the self-organized formation of nanopatterns at surfaces induced by exposure to laser radiation, electrons, or plasma. This Special Issue aims to attract contributors from industry, biotechnology, medicine, and academics and shall bundle original research and review articles on the latest achievements.

Guest Editor

Prof. Dr. Johannes Heitz Johannes Kepler University Linz, Institute of Applied Physics, Linz, Austria

Deadline for manuscript submissions

closed (31 December 2021)



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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometerscale dimensions, which we call "nanomaterials". These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, Nanomaterials, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

Editor-in-Chief

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