Special Issue

Advanced Composite and Laser-Processed Glasses for Optoelectronic and Photonic Applications

Message from the Guest Editor

Recent years, the incorporation of perovskite nanocrystals, 2D materials and metal nanoparticles within inorganic oxide glasses has been a promising way to producing composite glasses with advanced optical features. The encapsulation approach readily resolves stability issues upon exposure to ambient environments, as well as potential toxicity issues. These advantages render composite glasses suitable candidates for various types of optoelectronic and photonic applications.

The formation of laser-induced periodic structures represents an additional tool for tailoring and further tuning the optical properties of the composite glasses, upon generating interesting light and plasmon coupling effects between the glass matrix and the incorporated material.

This Special Issue aims to gather recent findings on the development of advanced composite glasses upon incorporating functional materials such as perovskites/2D materials/metal particles within the hosting glass matrix, and/or by employing laser processing to further advance the photonic properties of the designed glass architectures. Based on the above, it is my great pleasure to invite you to submit a manuscript for this SI.

Guest Editor

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Deadline for manuscript submissions

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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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