Special Issue

Opto/Electronics Materials and Devices Applied for Telecommunications

Message from the Guest Editor

Based on the three major challenges outlined by the international semiconductor technology blueprint (ITRS) for the development of the semiconductor industry in the future, compound semiconductors are extremely suitable for use in high-efficiency power electronics in emerging communications standards beyond 5G/6G. The operation frequency of the telecommunication system is increasing and may be up to sub-THz/THz. Compound semiconductors, e.g., GaN and InP-based materials and devices, may have a key role in high-frequency, high-power, and high-temperature applications suitable for B5G/6G and satellite communication. There are, however, a lot of issues that need to be solved, such as those regarding materials, reliability, and device performance. Emerging materials and devices are upcoming ways in which applications could be enhanced. This Special Issue will focus on materials and devices that can be used for B5G/6G system applications. The scope will cover, but will not be limited to, semiconductor material preparations (e.g., strain engineering, low defectivity and low cost), high-speed devices, power devices, lasers, photodetectors, modeling, simulation, and reliability.

Guest Editor

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Deadline for manuscript submissions

closed (31 July 2024)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/110485

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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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