Special Issue

Advances in GaN Materials

Message from the Guest Editor

The fundamental breakthrough of high-quality GaN material growth on sapphire substrate has led to the great success of highly efficient InGaN-based blue/white light-emitting diodes (LEDs), which has been recognized by the 2014 Nobel Prize for Physics. Recently, new progress has been made in the field of (Al, Ga, In)N material growth and characterization, including Al-rich Al(Ga)N and In-rich In(Ga)N film and heterostructures, free-standing GaN and AlN substrates, as well as III-nitride semiconductor nanostructures, which are enabling the fabrication and commercialization of high ultraviolet (UV)/green/yellow/red LEDs, laser diodes, and high electron mobility transistors with a great prospect in a wide array of applications. This Special Issue will focus on the recent advances in GaN materials with feature articles covering the topics of free-standing GaN and AlN substrates growth and device homoepitaxy, Al-rich Al(Ga)N and In-rich In(Ga)N film and heterostructure growth, GaN heteroepitaxy with novel buffer like graphene, GaN-based material and device growth on Si substrates, III-nitride semiconductor nanostructure growth, etc.

Guest Editor

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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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