Special Issue

High Electron Mobility Transistor (HEMT) Devices and Applications

Message from the Guest Editors

Ever since the demonstration of the first high-electron mobility transistors (HEMTs) by Dr. Mimura in 1981, HEMTs have been developed rapidly and commercialized in different material systems for a myriad of applications. At the early development stage, AlGaAs/GaAs, GaAs/InGaAs, and InP-based HEMTs were widely implemented into high-speed electronics communication applications with excellent noise and power performance. The development of GaN HEMTs has opened the gate to more applications, such as power electronics, mm-wave frequency systems, biosensing, and radiation-hardened electronics. Recently, ultrawide bandgap materials such as AlGaN- and Ga2O3-based HEMTs have been introduced and demonstrated encouraging results. This Special Issue will cover innovative HEMT devices, applications based on HEMT technology, HEMT-related material research, including epitaxy growth, material characterization, and fabrication techniques, and HEMT simulation.

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Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

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