



Terahertz Photonics: Science and Application

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Message from the Guest Editors

Terahertz radiation has attracted tremendous interest owing to it having potential applications in imaging and spectroscopy for medical diagnostics and biology, broadband communications, security, defense, and nondestructive testing. Interest in the THz range has recently increased due to the allocation of frequency bands in this region of the spectrum providing large amounts of available bandwidth for both the existing 5G and emerging 6G wireless communications standards. Access to these bands is key for next-generation wireless communications with terabit-per-second speeds. This Special Issue will address the current progress and latest breakthroughs in emergent applications of THz photonics, covering, among others, the following areas of interest:

- THz emitters, CW and pulsed;
- THz photonic detectors and mixers;
- THz surface-structured plasmonics and metamaterials;
- Tunable THz devices;
- THz waveguides, fiber and photonic crystals;
- Photonic-driven antenna arrays for THz beam forming and steering;
- Terahertz biophotonics.

