

## Special Issue

# Passive and Active THz Devices

### Message from the Guest Editor

The research and development in the 0.1–1.0 THz frequency region are extremely significant for a wide range of applications. Despite the problems in technology and high prices for basic components, THz systems offer high data rates for telecommunication, high spatial resolution in object visualizations, small sizes of antennas, and other elements. Otherwise, the state of the art of THz devices reveals serious issues with radiation sources, electronically/optically/mechanically tunable phase shifters, filters, etc. Micromachining is a rapidly developing novel technology platform for passive and active THz components to overcome these issues. Accordingly, this Special Issue seeks to showcase research papers, communications, and review articles that focus on (1) novel designs, fabrication, and modeling of passive and active THz devices, tunable devices based on MEMS and/or NEMS, novel tunable nanomaterials, detectors, THz antennas, and arrays, including reflect arrays based on all kinds of actuation mechanisms; and (2) new developments applying THz devices to any kind of consumer electronics, telecommunication systems, medicine, agriculture, space, or defense.

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### Guest Editor

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### Deadline for manuscript submissions

closed (28 February 2026)



## Micromachines

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### Message from the Editor-in-Chief

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### Editor-in-Chief

Prof. Dr. Nam-Trung Nguyen

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