Advances of THz Spectroscopy

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**Message from the Guest Editors**

Dear Colleagues,

Important macroscopic properties, from insulation to superconductivity, magnetic properties, and biological functions, originate from collective microscopic excitations. These microscopic excitations are typically found at low energy and can be probed with—and sometimes driven by—terahertz (THz) radiation between ~0.1 and 30 THz. While the THz frequency range was called the “THz gap” because of the few intense sources available, fast-paced technical developments are now filling this important scientific gap. This is not limited to the generation and detection of THz light, but also includes astonishing developments in its manipulation at the nanoscale, by exploiting the sensing and light-confining properties of plasmons. This Special Issue is dedicated to the developments of THz spectroscopy and to the characterization of the electronic, nuclear, and dielectric properties of matter. This includes, but is not limited to, bulk- or surface-sensitive spectroscopy or microscopy techniques, and the investigation of gases, liquids, soft, and solid-state matter. We kindly invite you to contribute to this Special Issue.