

Special Issue

Millimeter Waves and Terahertz Technologies for Sensing Applications

Message from the Guest Editor

This Special Issue will focus upon experimental techniques and theoretical modeling for generating coherent millimeter and THz waves useful for sensing applications. One of the primary topics will be the generation of coherent THz waves from antennas formed from the intrinsic Josephson junctions in the high-temperature superconductor $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ (Bi2212) and in related cuprates. This can be managed by designing various shapes of thin Bi2212 crystals. The earliest most common shapes were rectangular, but other shapes such as slitted annuli were made, and regular arrays of such shapes were found to emit with increasing output power, but still below the desired minimum power of 1 mW. This Special Issue will focus upon the design of antennas and antenna arrays that have the potential to generate coherent millimeter and/or THz waves with output powers that can approach or exceed 1 mW. Shapes such as circular disks, equilateral triangles, ellipses, squares, pentagons, hexagons, and heptagons, and especially slitted variations of those shapes with degenerate modes that can increase the output power will be the focus of this SI. For more information, please visit: mdpi.com/si/253677

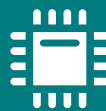
Guest Editor

Prof. Dr. Richard Klemm

Department of Physics, University of Central Florida, Orlando, FL 32816-2385, USA

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Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sensors@mdpi.com

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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