



Mid-Infrared Sensors Based On Semiconductor Lasers and Photonic Integrated Circuits (PICs)

Guest Editor:

Dr. Aditya Malik

Electrical and Computer
Engineering, University of
California Santa Barbara, Santa
Barbara, CA 93106, USA

Deadline for manuscript
submissions:

closed (29 February 2020)

Message from the Guest Editor

Dear Colleagues,

This Special Issue focuses on advancements made in both these areas. The main aim is to track the progress over the wide mid-infrared wavelength band (2–12 μm) in the performance of sensing solutions employing semiconductor lasers and PICs. Articles detailing integration of mid-infrared III-V devices with passive waveguides are also of interest in this Special Issue. Potential topics for this Special Issue include but are not limited to:

- Sensing schemes using Type I and Type II laser diodes;
- Sensing schemes using interband cascade lasers;
- Sensing schemes using quantum cascade lasers;
- Tunable laser diode spectroscopy in the mid-infrared;
- Wavelength modulation spectroscopy in the mid-infrared;
- Evanescent waveguide sensors;
- Slot waveguide-based sensors;
- Novel waveguide geometries for sensing applications;
- Spectrometers based on PICs;
- Mid-infrared photothermal sensors;
- Mid-infrared photoacoustic sensors;
- Mid-infrared plasmonic sensors;
- Integration of mid-infrared light sources on passive waveguides.





sensors



an Open Access Journal by MDPI

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

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.

Author Benefits

Open Access : free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Ei Compendex](#), [Inspec](#), [Astrophysics Data System](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Instruments & Instrumentation*) / CiteScore - Q1 (*Instrumentation*)

Contact Us

Sensors Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/sensors
sensors@mdpi.com
[X@Sensors_MDPI](#)