







an Open Access Journal by MDPI

# Room Temperature Semiconductor Detectors: Development and Applications

Guest Editors:

#### Dr. Leonardo Abbene

Department of Physics and Chemistry, University of Palermo, Viale delle Scienze, Edificio 18, 90128 Palermo, Italy

#### Dr. Matthew Charles Veale

Rutherford Appleton Laboratory, UKRI Science & Technology Facilities Council, Oxfordshire, UK

### Dr. Andrea Zappettini

IMEM-CNR,Istituto Materiali per l'Elettronica e il Magnetismo, Consiglio Nazionale delle Ricerche Parco Area delle Scienze 37/A 43124 Parma, Italy

Deadline for manuscript submissions:

closed (31 March 2021)

## **Message from the Guest Editors**

Dear Colleagues,

Over the last two decades. room-temperature semiconductor detectors (RTSDs) have been extensively proposed for X-ray and gamma-ray spectroscopy and imaging, opening new perspectives in several application areas such as synchrotron science, homeland security, medical imaging, and astrophysics. RTSDs are an important class of X-ray and gamma-ray sensors able to high-resolution spectroscopy near roomtemperature conditions. Several high-Z and wide-bandgap compound semiconductors (CdTe, CdZnTe, GaAs, Hgl 2, TlBr) have been developed, and continuous efforts have been made in the advancement of the crystal growth and device fabrication technologies.

In this framework, we are glad to edit this Special Issue on "Room Temperature Semiconductor Detectors: Development and Applications".

This Special Issue aims to receive submissions of both review and original research articles related to the state-of-the-art in RTSD sensors as well as prospects for future developments and applications.













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**