Special Issue

Radiation Sensors and Detectors: Materials, Principles and Applications (2nd Edition)

Message from the Guest Editors

Radiation sensors and detectors are widely used in fundamental physics, nuclear reactors, aerospace science, medicine, environmental monitoring, etc. One of the most important aspects of these application areas is the extremely harsh radiation environment, driven by the next-generation fusion energy reactors and future high-energy particle detectors. It is crucial to develop radiation-resistant, easy-to-operate, highspatial/temporal-resolution devices that can survive in environments with high radiation fluences and high temperatures, as expected in plasma diagnostics and high-energy particle collisions. Solid-state sensors, especially wide-bandgap semiconductors, are good candidates for these applications. This Special Issue is the second edition addressed to all types of solid-state sensors designed for extremely harsh environments. The first edition can be found

here: https://www.mdpi.com/journal/sensors/special_is sues/RSDMPA.

Guest Editors

Dr. Michael Moll CERN, Organisation Europenne pour la Recherche Nucléaire, CH-1211 Geneva, Switzerland

Dr. Xin Shi Institute of High Energy Physics, Chinese Academy of Sciences, 19B Yuquan Road, Shijingshan District, Beijing 100049, China

Deadline for manuscript submissions

30 June 2025



Sensors

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



mdpi.com/si/215443

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

mdpi.com/journal/

sensors





Sensors

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



sensors



About the Journal

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

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 and Instrumentation) / CiteScore - Q1 (Instrumentation)