Special Issue

Measurement of Low and Ultra-Low Background Radioactivity

Message from the Guest Editor

The aim of this Special Issue is to provide an overview of the current status of low background and ultra-low background radioactivity. Experimental search of dark matter and neutrinoless double beta decay need to limit background rate as much as possible, using radio-pure materials for detectors and radio-pure electronics for data acquisition. Data analysis need to use dedicated methods to separate signal from background in the case of very weak signals. Environmental radioactivity needs also ultralow background electronics and detector components in case of very weak activities, as those due to trace elements and some cosmogenic radioisotopes, or very weak signals as those from tritium. The scope of this Special Issue is recent advances in the field of low background and ultra-low background radioactivity from the experimental point of view. Papers on radio-pure materials and electronics, low background and ultra-low background data acquisition and analysis, shielding procedures, low-level counting detectors and related topics are welcomed.

Guest Editor

Prof. Dr. José Díaz

Instituto de Física Corpuscular (IFIC), University of Valencia, Edificio Institutos de Investigación de Paterna, 46980 Valencia, Spain

Deadline for manuscript submissions

closed (31 July 2018)

Instruments

an Open Access Journal by MDPI

CiteScore 2.6

mdpi.com/si/11822

Instruments
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
instruments@mdpi.com

mdpi.com/journal/instruments

Instruments

an Open Access Journal by MDPI

CiteScore 2.6

mdpi.com/journal/instruments

About the Journal

Message from the Editor-in-Chief

The realization of dedicated instrumentation has always been a collateral aspect of experimental research. In addition, many groups dedicate efforts and resources solely to the development of new devices, sensors, equipment and large infrastructure, theoretical and numerical studies, and novel experimental methodologies. With Instruments we wish to address both established and emerging communities, also to favor the creation of innovative trans-disciplinary approaches. We see Instruments as an exciting high-impact journal that will soon hold a leading position in disseminating cutting edge scientific and technological research.

Editor-in-Chief

Prof. Dr. Antonio Ereditato
Enrico Fermi Institute, The University of Chicago, Chicago, IL 60637, USA

Author Benefits

High Visibility:

indexed within Scopus, Inspec, CAPlus / SciFinder, INSPIRE, and other databases.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 28 days after submission; acceptance to publication is undertaken in 5.8 days (median values for papers published in this journal in the second half of 2024).

Recognition of Reviewers:

reviewers who provide timely, thorough peer-review reports receive vouchers entitling them to a discount on the APC of their next publication in any MDPI journal, in appreciation of the work done.

MDPI