Special Issue

The Development and Applications of Novel Detectors

Message from the Guest Editor

The major scientific advances are always preceded by the research and development of ever more complex measuring devices. The last few years have seen continued efforts in the development of wide band gap room temperature semiconductor devices, primarily aimed at detecting charged particles, neutrons and X-rays. Zinc Cadmium Telluride, Diamond, Silicon Carbide, Gallium Nitride are some of the materials investigated for prototyping of radiation detectors. In the context of nuclear and particle physics, the search for new semiconductor detector materials focuses on their ability to operate at extremely high radiation fields, while a significant area of commercial activity has been in the development of prototype detectors for X-ray spectroscopy and hard X-ray astronomy. The main focus of this special issue will be the fundamental properties of new materials, concepts and device designs that are likely to trigger the creation of new products or the exploitation of new technologies in the fields of radiation detection.

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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