Special Issue

Advances in Nuclear Radiation Detection Materials

Message from the Guest Editor

Ionizing radiation detector systems have been applied in a range of applications. To detect these invisible radiation signals, it is necessary to use materials that convert their energy to UV–Visible photons (indirect conversion method) or electronic signals (direct conversion method). A series of scintillator (NaI, CsI, BGO, plastic, etc.) and semiconductor (Ge, Si, CdZnTe, etc.) materials including nanomaterials, thin films, and bulk crystals have been developed to detect invisible radiation signals. Recently, due to their unique optoelectronic properties, new materials such as perovskites and nanocomposites have been fabricated as radiation detectors. The research in this area has significantly improved radiation technology applications, which will make our lives safer and better. This Special Issue will compile recent developments in the field of radiation detection materials. The articles will focus on growth methods of radiation materials, characterization, device fabrication, and radiation detection device applications.

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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