Special Issue

Space Weather—Radiation Damage to Materials and Electronic Devices: Mitigation Risks

Message from the Guest Editors

Space weather is the physical and phenomenological state of natural space environments. Through observation, monitoring, analysis, and modelling, the associated discipline aims to understand and predict the state of the Sun, as well as interplanetary and planetary environments and the solar- and non-solar-driven perturbations that affect them, in addition to forecasting and nowcasting potential impacts on biological and technological systems. The aim of this issue is to collect the most advanced research studies carried out by specialists in space weather, focusing on either the detection of cosmic episodes (mainly radiation produced by solar flares) with medium- and high-energy gamma and ion detectors, or studying the effects that this radiation produces in electronic devices, such as the generation of single-event effects or effects on materials, e.g., dislocations of their atomic lattice structure. Additional aims of this Special Issue include the fabrication of novel materials for electromagnetic radiation shields or algorithmic predictions based on energy data obtained using novel radiation sensors and detectors.

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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.

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