NUCLEAR INSTRUMENTS AND METHODS IN PHYSICS RESEARCH SECTION B: BEAM INTERACTIONS WITH MATERIALS AND ATOMS

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DESCRIPTION

Section B of Nuclear Instruments and Methods in Physics Research covers all aspects of the interaction of energetic beams with atoms, molecules and aggregate forms of matter. This includes ion beam analysis and ion beam modification of materials as well as basic data of importance for these studies. Topics of general interest include: atomic collisions in solids, particle channelling, all aspects of collision cascades, the modification of materials by energetic beams, ion implantation, irradiation-induced changes in materials, the physics and chemistry of beam interactions and the analysis of materials by all forms of energetic radiation. Modification by ion, laser and electron beams for the study of electronic materials, metals, ceramics, insulators, polymers and other important and new materials systems are included. Related studies, such as the application of ion beam analysis to biological, archaeological and geological samples as well as applications to solve problems in planetary science are also welcome. Energetic beams of interest include atomic and molecular ions, neutrons, positrons and muons, plasmas directed at surfaces, electron and photon beams, including laser treated surfaces and studies of solids by photon radiation from rotating anodes, synchrotrons, etc. In addition, the interaction between various forms of radiation and radiation-induced deposition processes are relevant.

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