

Modeling of Defects Properties in Bragg Peak

Monday, 18 November 2019 14:10 (20 minutes)

The presented report is focused on the problem of analyzing irradiation-induced highly disordered regions in the detector bulk. Such regions could be settled down close to the Bragg Peak maximum - ion stopping range. Noted regions were created in the detectors of low-resistance silicon via low energy irradiation by heavy ^{40}Ar ions at the Ioffe Institute Cyclotron. Electrophysical properties of irradiated structures are investigated and unexpected issues of the capacitance characteristics are revealed. The model of a highly disordered damaged region is proposed and its correspondence to experimental data (DLTS spectrum) is demonstrated.

Primary authors: Ms MITINA, Daria (Ioffe Institute (RU)); EREMIN, Vladimir (Ioffe Institute (RU)); VERBIT-SKAYA, Elena (Ioffe Institute (RU))

Presenter: Ms MITINA, Daria (Ioffe Institute (RU))

Session Classification: Defect Characterization