

Fluence dependent recombination lifetime in neutron and proton irradiated MCz , FZ and epi-Si structures.

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Results of comparative investigation of recombination lifetime in neutron and proton irradiated MCz, FZ and epi-Si structures are presented. Recombination lifetime in neutron and high energy proton irradiated different materials decreases near linearly with fluence enhancement in the range of $1E12 - 3E16$ $1/cm^2$. However, absolute lifetime values are significantly decreased in low energy (~ 2 MeV) proton irradiated structures relatively to those in neutron and high energy protons irradiated material. Cross-sectional lifetime scans within wafer thickness are presented and discussed.

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