

# Dependence of the 6H - SiC Induced Amorphization on the Ion Beam Implanted Fluence

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**Abstract.** 6H-SiC samples have been implanted by 4 MeV C and Si ions in the (0001) channeling direction to the sets of multiple implantation fluences. These samples were analyzed via Elastic Backscattering Spectroscopy in the channeling mode (EBS/C) using 1.725 MeV proton beam, from which SiC amorphization depth profiles and averaged integral 6H-SiC amorphization have been obtained. The averaged integral 6H-SiC crystal amorphization vs implanted fluence dependence has been determined for both types of implanted ions. From these dependences, the 6H-SiC integral crystal amorphization vs. implanted fluence/type of implanted atom assessment model have been proposed.