

INFLUENCE OF DOPING BY THE ISOVALENT
LEAD IMPURITY ON THE PARAMETERS
OF *n*-SILICON

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S u m m a r y

The influence of the doping by an isovalent Pb impurity on the structural, electric, and recombination parameters of *n*-Si has been studied. The Pb-doping of Si has been revealed to result in the following: it brings the main part of the C impurity out of an optically active state, reduces the density of growth microdefects, does not influence the concentration of dislocations, increases the lifetime of nonequilibrium current carriers, does not create additional electrically active structural defects, and does not affect the mobility of the majority current carriers. The reason of the observable effects can be a reduction of internal deformation-involved stresses in the crystal owing to the correlated distribution of Pb and C atoms during the Si crystallization at the drawing of the crystal from the melt.