

STUDY OF LIGHT SCATTERING PROCESSES
IN SILICON SINGLE CRYSTALS
WITH NONHOMOGENEOUS
DISTRIBUTION OF IMPURITIES

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S u m m a r y

The origin of the nonmonotonous behavior of small angle light scattering (SALS) observed for single crystals of Si after the transition of oxygen impurity atoms into an electrically active state as a part of thermodonors (TDs) has been analyzed. It has been shown that both the rise and the fall of the SALS intensity during the thermal treatment of the Si samples at 450 °C resulted from the formation of TD microclusters at the places of initial microfluctuations of the oxygen concentration. The analysis of the experimental data has allowed us to evaluate numerically the local concentration of TDs in the clusters of various sizes.