INFLUENCE OF STRUCTURAL DEFECTS IN SUBSURFACE LAYERS OF SILICON ON CHARGE CARRIER MOBILITY IN THE CHANNEL OF MOS-TRANSISTORS AND THRESHOLD VOLTAGE

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S u m m a r y

The influence of structural imperfections, the impurity composition, and the doping inhomogeneity on the basic parameters of the I – V characteristics of MOS-transistors has been found out with aid of modern research methods. Oxygen and carbon are the basic impurities in initial and oxidized silicons. Oxygen reveals electrical activity and influences the parameters of structural defects that, in turn, affect the charge carrier mobility and the threshold voltage.