

TEMPERATURE DEPENDENCES OF THE
DEFORMATION AGEING OF SCREW
AND EDGE DISLOCATIONS
IN NaCl SINGLE CRYSTALS

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S u m m a r y

Temperature dependences of the deformation ageing of screw and edge dislocations in NaCl single crystals have been studied. It is found that the temperature strongly influences the process of ageing of screw dislocations, but weakly affects that of edge ones. It is shown that the centers of the strong pinning of screw dislocations arise in the regions of thermal kink formation. Basing on the experimental data, the energy of a kink formation and the concentration of thermal kinks in the temperature range 20–100 °C are determined. The results obtained are in good agreement with the theoretical calculations.