EFFECT OF Hg AND Te INCLUSIONS ON MECHANICAL BEHAVIOUR OF CdTe, HgTe AND $Cd_xHg_{1-x}Te$ CRYSTALS

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S u m m a r y

On the basis of the Mott – Nabarro model, values of stress tensor components around Te inclusions in crystals CdTe, HgTe and CdHgTe and elastic energy per unit volume are estimated. The areas close to Te inclusions show the higher microhardness value as compared to the matrix of a crystal. Fine Te and Hg inclusions in CdHgTe cause a nonmonotone microhardness dependence on temperature in the range of 0 – 493 K and the phenomenon of unsteady creep during indentation.