TELLURIUM EFFECT ON DEGRADATION STABILITY OF SEMIINSULATING GALLIUM ARSENIDE CRYSTALS

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Summary

Initial untreated crystals of semiinsulating tellurium-compensated GaAs are shown to degrade considerably less after HF treatments in comparison with the corresponding specimens doped with chrome, which testifies to a substantial influence of the compensating impurity type on the substance degradation stability. Semiinsulating tellurium-compensated GaAs crystals preliminary treated in hydrogen plasma are also found to have higher degradation stability with respect to the action of long-term high-frequency and microwave treatments in comparison with raw crystals.