

FAR-IR RADIATION FROM n -Si IN STRONG
ELECTRIC FIELDS UNDER INTERVALLEY
MIGRATION OF ELECTRONS

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S u m m a r y

We have investigated experimentally the dependence of the intensity and polarization of spontaneous far-IR radiation from n -type Si on the uniaxial stress, electric field, and orientation relative to the crystallographic axes. On the uniaxial $\langle 100 \rangle$ stress, the polarization 'phase' changes by 90° , the same stress in the symmetric $\langle 111 \rangle$ direction does not produce any change of the radiation polarization. A possible explanation of the results is reported. The type of the dissipation of carriers plays the important role in polarizing the far-IR radiation.