

BAND STRUCTURE EFFECTS IN LIGHT
SCATTERING BY PLASMONS
IN *p*-TYPE GERMANIUM

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S u m m a r y

The spectral dependence of the cross section for light scattering by plasmons in germanium has been calculated taking a real valence band structure into account. It is shown that the contribution of virtual transitions from the heavy- to light-hole subbands to the dielectric constant leads to an asymmetric line of light scattered by plasmons and a non-square-root dependence of the plasma frequency on free hole concentration. These effects enable to explain properly experimental spectra of light scattering by plasmons observed for *p*-type Ge.