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Erratum: "Terahertz Studies of the Dielectric Response and Second-Order Phonons in a GaSe Crystal" [Appl. Phys. Lett.87, 182104 (2005)]

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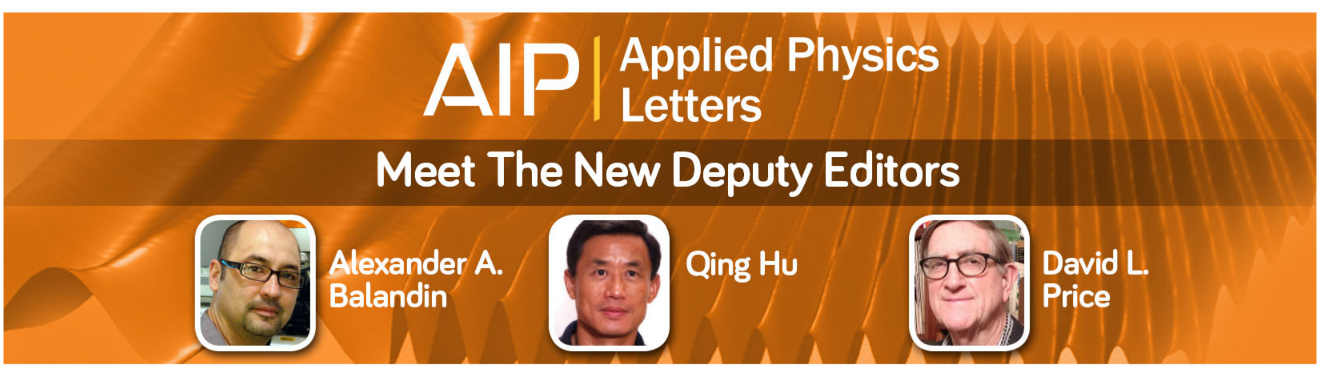

Erratum: "Terahertz studies of the dielectric response and second-order phonons in a GaSe crystal" [Appl. Phys. Lett. 87, 182104 (2005)]

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The real and imaginary conductivities were plotted in Ω^{-1} m^{-1} while they should have been Ω^{-1} cm^{-1}. The Drude fit from which we extracted the plasma frequency and momentum relaxation rate was incorrectly modeled after the real conductivity which, as we discovered, can be flawed due to irregularities in the phase of the THz transient. We corrected this by modeling the imaginary part of the conductivity [Fig. 1] which has little dependence on the real index of refraction. The key parameters determined from the THz data using the Drude model are not significantly different from those previously reported: the plasma frequency $\omega_p = 6.1 \pm 0.5$ THz, the average momentum relaxation time $\langle\tau\rangle = 51 \pm 6$ fs, and the mobility $\mu = 89.7$ cm^2/Vs for electrons. No other conclusions of the paper are affected.

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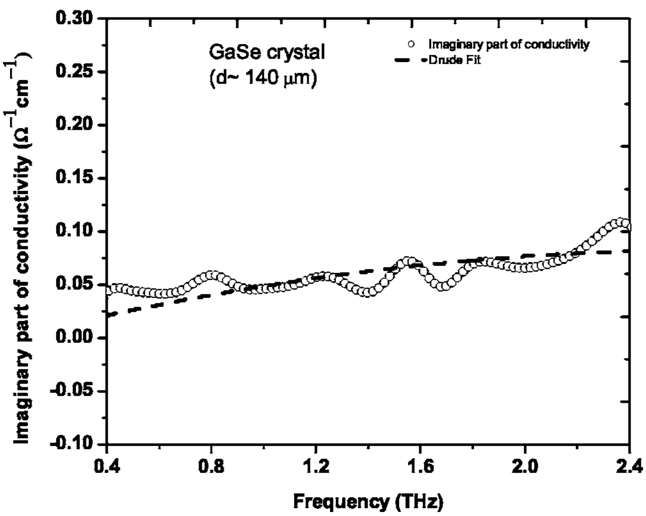

FIG. 1. Complex conductivity for the real part $\sigma_r(v)$ and the imaginary part σ_i (v) in the THz region. The dashed line is fitted by the equation $\sigma_I = \varepsilon_0 \omega \omega_p^2 / \omega^2 + \langle\tau\rangle^{-2}$ using the parameters $\langle\tau\rangle = 51 \pm 6$ fs and $\omega_p = 6.1 \pm 0.5$ THz.

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