Temperature Dependence of the Dielectric Function and Interband Critical Points of Bulk Germanium

Carola Emminger, Nuwanjula Samarasingha, Farzin Abadizaman, Nalin Fernando, Stefan Zollner Department of Physics, New Mexico State University, Las Cruces, NM

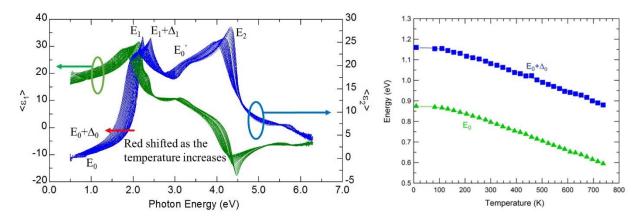


Fig.: (a) Real and imaginary parts of the pseudo-dielectric function of bulk Ge as a function of photon energy in the temperature range from 10 to 738 K (b) Temperature dependence of the E_0 and $E_0+\Delta_0$ critical point energies of bulk Ge. The lines show the best fit to the data according to the Bose-Einstein Equation.