

Phonon Dispersion

Si

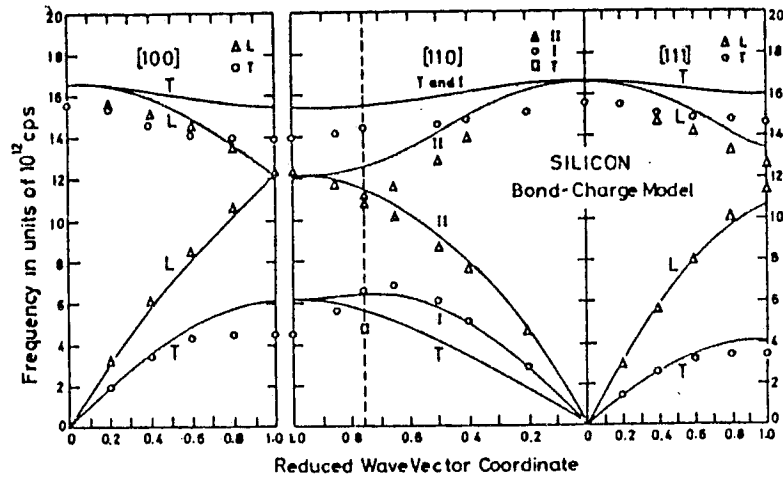
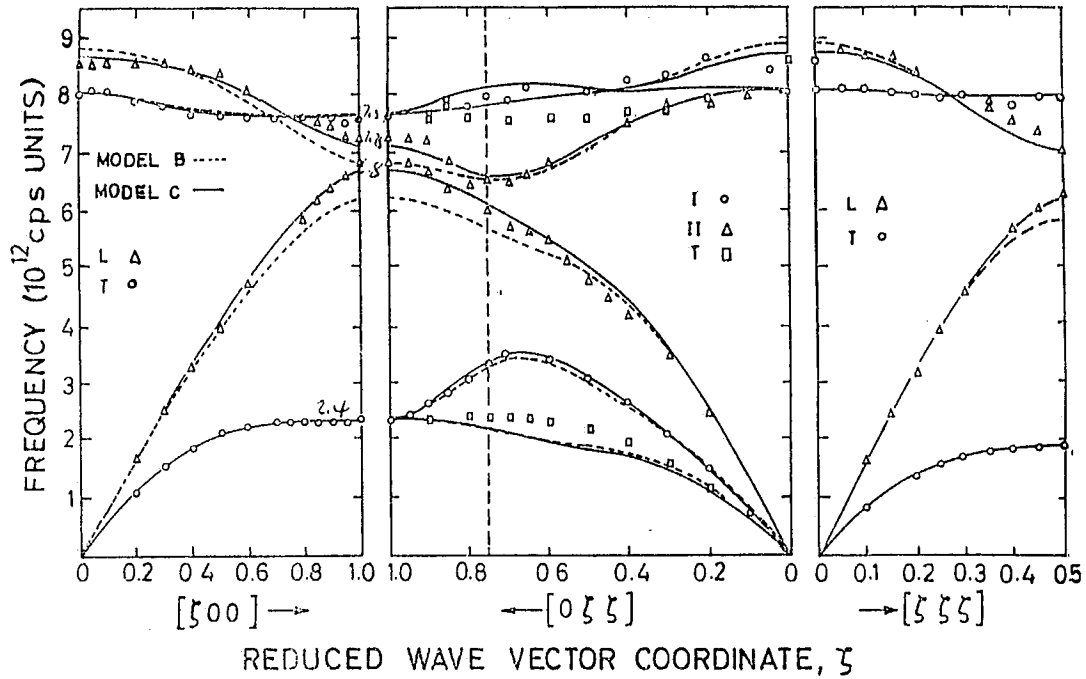
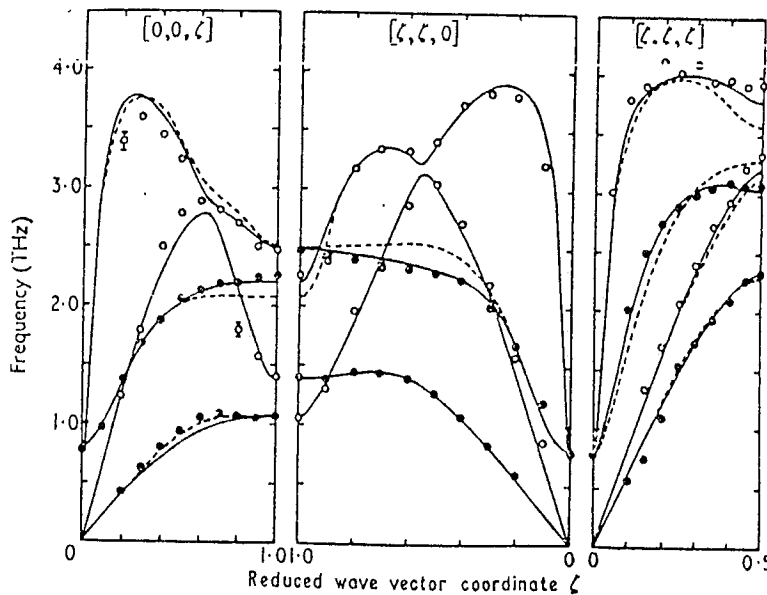


FIGURE 16. Comparison of Martin's bond charge model calculation with the experimental phonon frequencies in Si. (From Martin, R. M., *Phys. Rev.*, 186, 871, 1969. With permission.)



GaAs



SnTe

FIGURE 15. Dispersion curves for SnTe along the principal symmetry directions. The solid curve represents a 14-parameter shell model fit (modified to include free carrier screening effects). (From Cowley, E. R., *J. Phys. C. Solid State Phys.*, 2, 1916, 1969. With permission.)