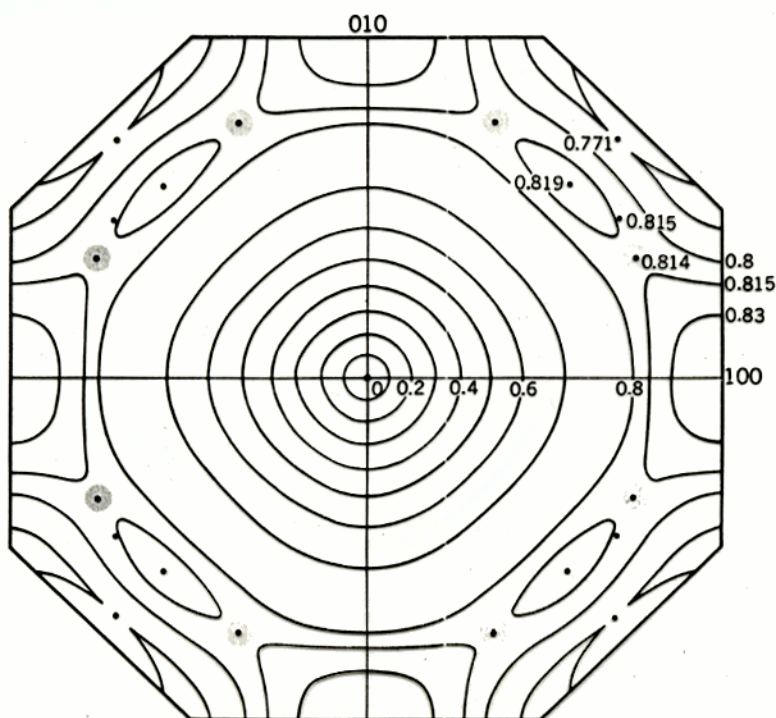


**Figure 12** Phonon density of modes  $\mathfrak{D}(\nu)$  for the three branches of aluminum; here  $\nu = \omega/2\pi$ . The histograms are obtained from computed frequencies for 2791 wavevectors. [After C. B. Walker, Phys. Rev. 103, 547 (1956). For further results on aluminum see R. Stedman, L. Almqvist, and G. Nilsson, Phys. Rev. 162, 549 (1967).]



**Figure 13** Surfaces of constant frequency in aluminum, for longitudinal phonons. The section shown is the (100) plane of the reciprocal lattice. The gray circles lie on one set of saddle points. (After C. B. Walker.)