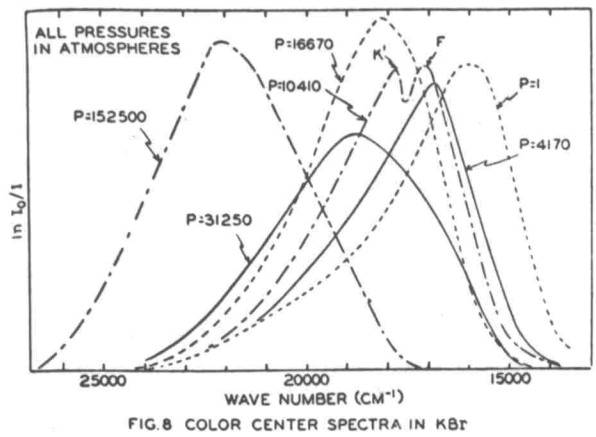

FIG. 8. Color center spectra at various pressures—KBr.

the K' band in any case. This indicates that the formation of the K' band is related in some way to the transition between the two alkali halide structures.

(b) The paper by Lazarus[11] shows that the shear constant of sodium chloride is relatively high and is relatively independent of pressure, while the shear constant of potassium chloride is not only much lower at one atmosphere, but decreases with increasing pressure.

(c) Wiederhorn[12] has shown that the transmittance of the potassium halides decreases by a factor of over 10^{-3} before the pressure induced phase transition is more than 10% complete.

The preceding indicate that the K' band growth may possibly by connected with the propagation of shear through the lattice, causing a disruption in the structure of the F center. It is possible that the defect ties down the ends of dislocations formed by the shear, introducing new forces into the energy scheme of the center.

C. Transition Effects, and the F Center in the sc (CsCl) Structure

Three potassium halides (KCl, KBr, and KI) transform from the fcc to the sc structure at 19 000–

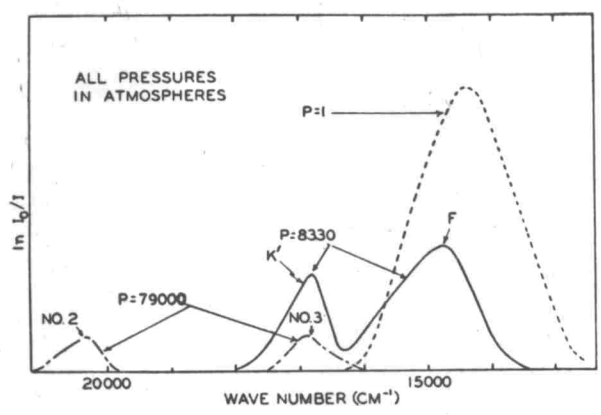

FIG. 9. Color center spectra at various pressures—KI.

[11] D. Lazarus, Phys. Rev. **76**, 545 (1949).
[12] S. Wiederhorn (private communication).

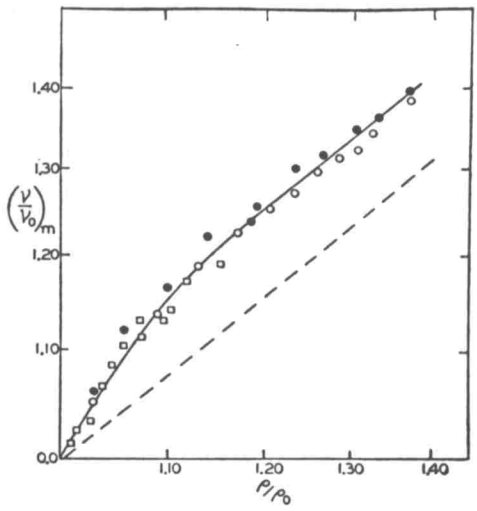

FIG. 10. $\mathrm{Log}(\nu/\nu_0)_m$ vs $\log\rho/\rho_0$—NaCl; — — —, $\nu/\nu_0 \sim (\rho/\rho)^{2/3}$.

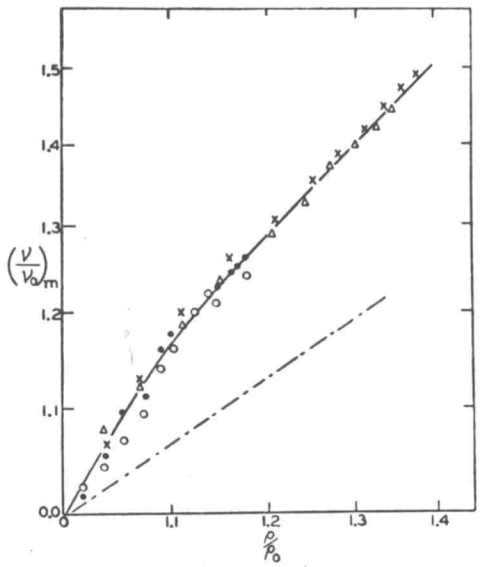

FIG. 11. $\mathrm{Log}(\nu/\nu_0)_m$ vs $\mathrm{Log}\rho/\rho_0$—NaBr; — - — - —, $\nu/\nu_0 \sim \rho/\rho_0)^{2/3}$.

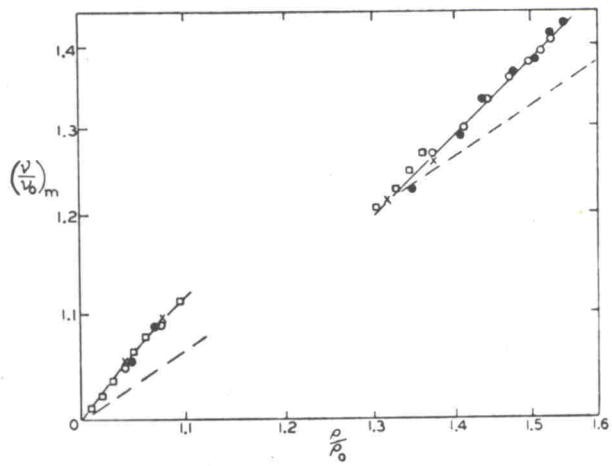

FIG. 12. $\mathrm{Log}(\nu/\nu_0)_m$ vs $\log\rho/\rho_0$—KCl; — — —, $\nu/\nu_0 \sim (\rho/\rho_0)^{2/3}$.