...imental data permits the choice of C to vary ...siderably. In the case of aluminum oxide ... $+5$ and $C = -15$ would provide a ...sonable fit of the single-crystal and poly...stal shock wave data, respectively. We have ...en $C = -5 (K_0'' = -2 \times 10^{-12}$ cm^2/dyne) ... represent an average fit, but we certainly ...uld not attach any particular significance to ... choice of C in view of the available data, ...hich seem to indicate that the single-crystal ...d polycrystal behave somewhat differently. ...In this case the calculated curves are based on ...K_0' determined from the ultrasonic data for ...olycrystalline material. For α-quartz $C = 10$ ...$K_0'' = 27 \times 10^{-12}$ cm^2/dyne) provides a rea...nable fit of the shock wave data, whereas the ...gh-pressure isothermal data suggest a smaller value of C for a fit. For magnesium, Figure 4, $C = \pm 2$ ($K_0'' = \pm 5.8 \times 10^{-12}$ cm^2/dyne) accommodates the scatter between the high pressure isothermal compression data.

The calculated curve for potassium (Figure 5) shows good agreement with experimental data by picking $C = -0.6$ ($K_0'' = -17.8 \times 10^{-12}$ cm^2/dyne). Strangely, a positive value of C was required to fit the experimental data of the other alkali metal, sodium. In Figure 6 the calculated curve for sodium with $C = 1.5$ ($K_0'' = 24.3 \times 10^{-12}$ cm^2/dyne) provides a very good fit of the experimental data to high pressures.

In Figure 7 the agreement between calculated and experimental data for lead is quite good over the entire pressure range for a value of

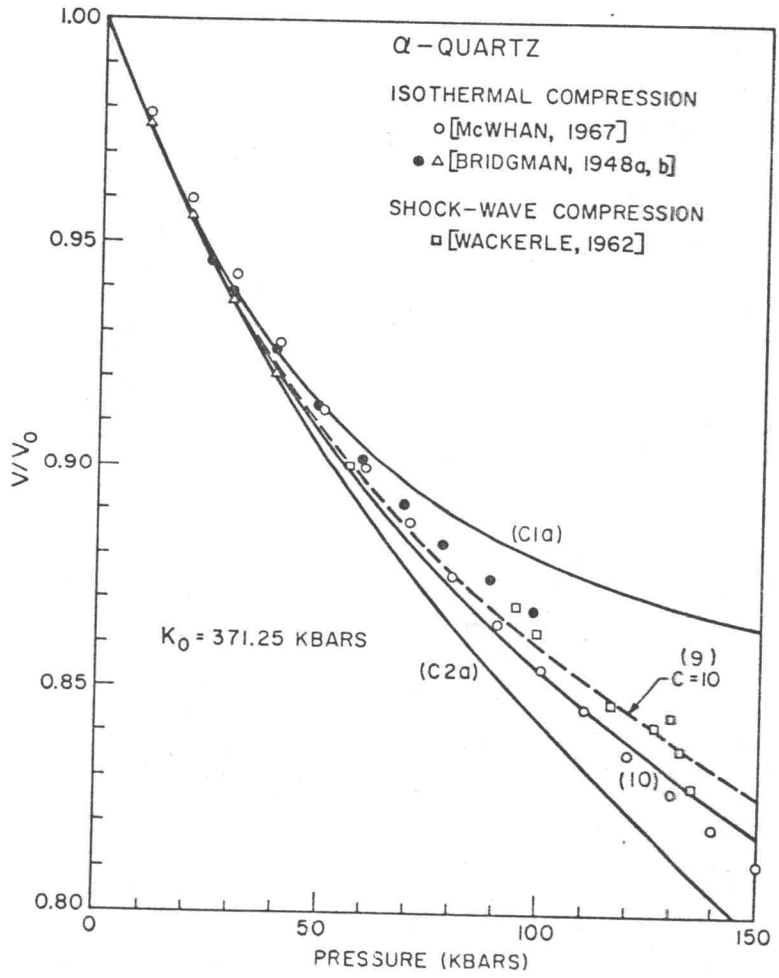

Fig. 3.