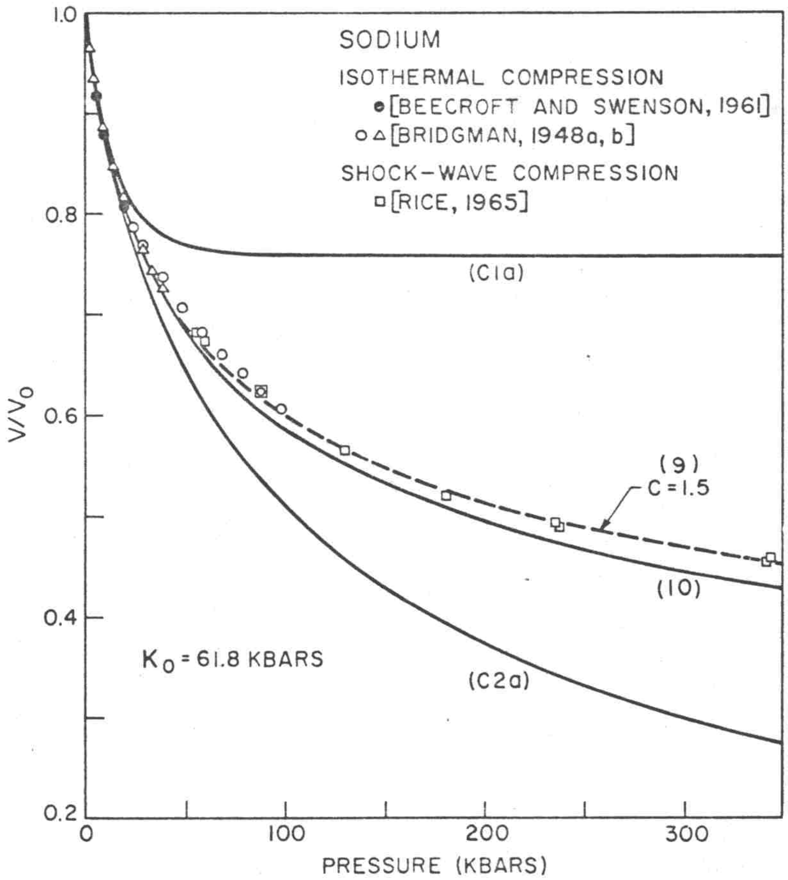

Fig. 6.

$$a_2 = -a^3C - a^2(K_0' - m) \qquad \text{(A3)}$$

If C satisfies equation 3, then $a_1 = 0$ and $a_2 = a^2(K_0' - m)$, in which case equation A1 reduces to equation 2. Having an additional parameter, equation A1 has considerably more freedom, as manifested by the fact that C and $(K_0' - m)/a$ can be varied independently. For example, one can have $m = K_0'$ with $C \neq 0$ or $C = 0$ with $m \neq K_0'$. A possible method of use of equation A1 would be to choose two parameters sensibly but somewhat arbitrarily, say $m = 4$ and $a = 1$, determine K_0' and C for fitting to data, and then use the formula for the purpose of extrapolation.

Equation A1 will be recognized as part of a Laurent series. One may also consider a more general term of the form $a_n(P + a)^{-n}$. For example, we could write

$$\frac{d(K/K_0)}{dP} = m + \frac{a_n}{(P + a)^n} \qquad \text{(A4)}$$

Equation 2 then appears as the special case in which $n = 2$. The special case $n = 1$ is also the special case of (A1) in which $a_2 = 0$. With $n = 1$, $a = 1/K_0'$, and $a_1 = 1 - (m/K_0')$, equation A4 gives the result of substituting the Murnaghan expression for K/K_0 into the right-hand side of the Keane equation, equation 1.

Some other possibilities are

$$\frac{d(K/K_0)}{dP} = m + \frac{b}{\log (P + a)} \qquad \text{(A5)}$$

and

$$\frac{d(K/K_0)}{dP} = m + \frac{c}{(P + a) \log (P + a)} \qquad \text{(A6)}$$

APPENDIX B. EXTRAPO…
COMPRESSION FRO…

By replacing dP in equ…
we see that it is of the for…

$$V = \exp \left[-\int \cdots \right.$$

The integral in the expon…

$$\frac{1}{2b} \ln (bx^2 + cx + d) - \cdots$$

where