TABLE 1. Data

Material	K_0, kb	K_0'
α-SiO_2	371.25	6.33
Al_2O_3	2504.1	4.00
Mg	344.04	4.07
K	33.8	3.98
Na	61.8	3.59
Pb	416.0	6.30

$a > 0$ and $A > 0$ (equation 3). For the case $(K_0' - m) < 0$ the parameters a and A are of opposite sign, and q is clearly > 0. We also need to know whether $2bx + c > (q)^{1/2}$. To answer this question, note that

$$q = (1 + A - am)^2 + 4amA$$
$$= (1 + A + am)^2 - 4am \quad \text{(B3)}$$

and

$$2bx + c = 2m(P + a) + (1 + A - am)$$
$$= (1 + A + am) + 2mP$$

Clearly, for $C < 0$, $(q)^{1/2} < (1 + A + am)$ therefore $2bx + c > (q)^{1/2}$ for all $P \geq 0$. In this case equation B2 is appropriately written in the logarithmic form

$$\frac{1}{(q)^{1/2}} \ln \left[\frac{(1 + A + am) + 2mP - (q)^{1/2}}{(1 + A + am) + 2mP + (q)^{1/2}} \right] \quad \text{(B4)}$$

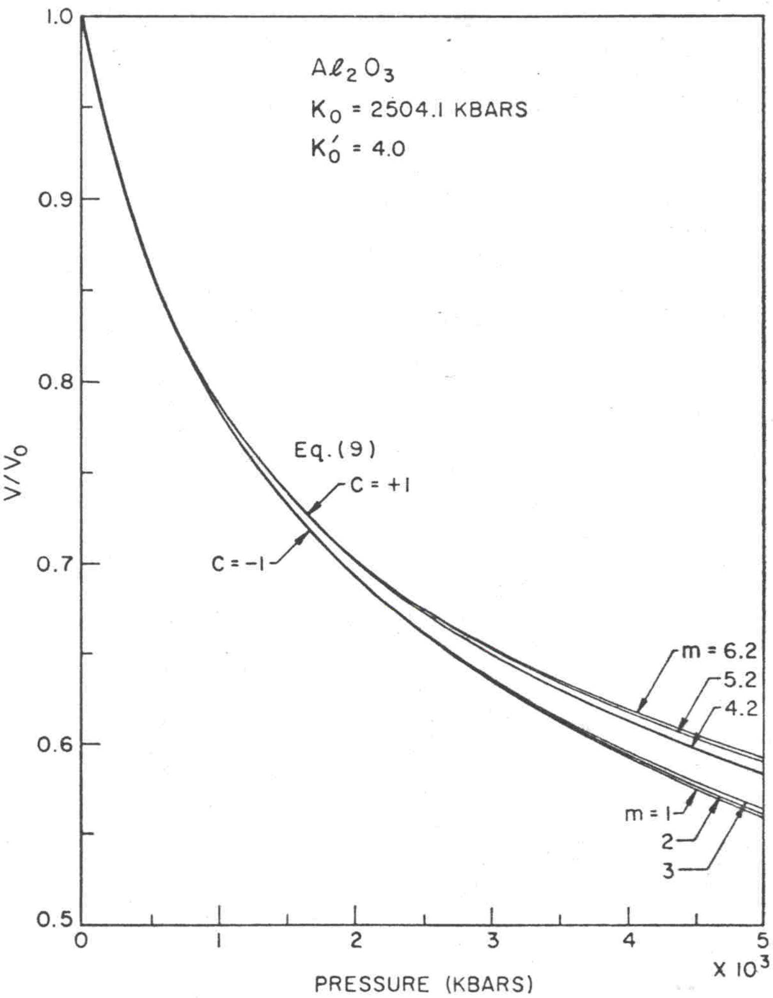

Fig. 8. Effect of varying m on extrapolated values of v/v_0 versus pressure for aluminum oxide.