

can derive the quantity

is approximately constant and changes slowly, but this may be within

#### FUNCTION OF $T/\phi$

$$(U - U_0)/T$$

0.010
0.017
0.043
0.091
0.158
0.248
0.359
0.491
0.645

integrating the relationship

(3)

depends only on volume. The  $\rho, V, T$  values on the melting curve in figure 9, together with the values.

be extrapolated to  $0^\circ\text{K}$  with the relationship at absolute zero can be obtained from this in turn the compressibility of the compound and is shown in table 5. Other values may also be obtained.

#### HELIUM AT $0^\circ\text{K}$

pressure (atm)	$10^5 \beta$ ( $\text{atm}^{-1}$ )
295	54
200	76
136	103
88	140
50	190

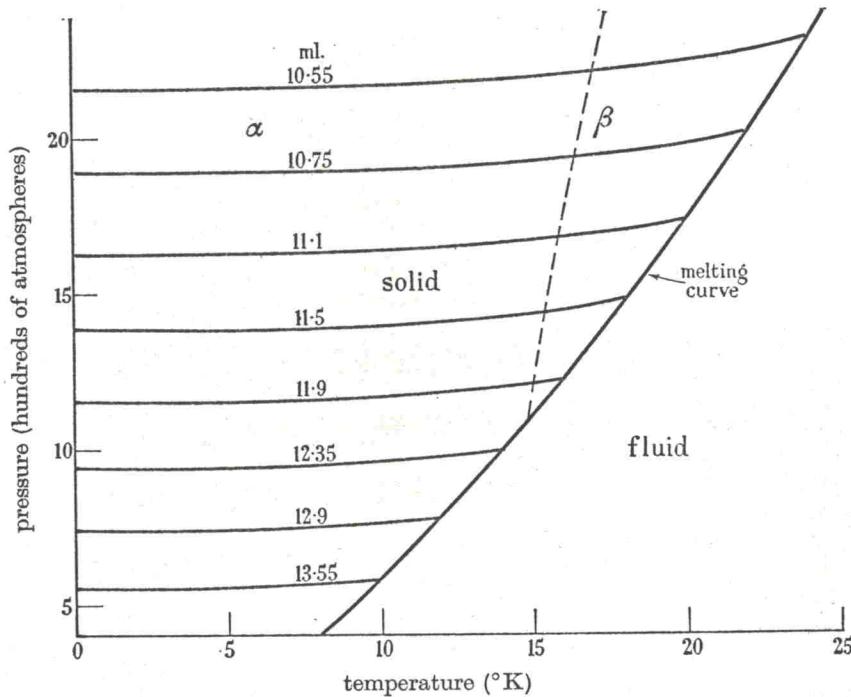


FIGURE 9. The isochores of solid helium at eight molar volumes.  
—, transition line in the solid.

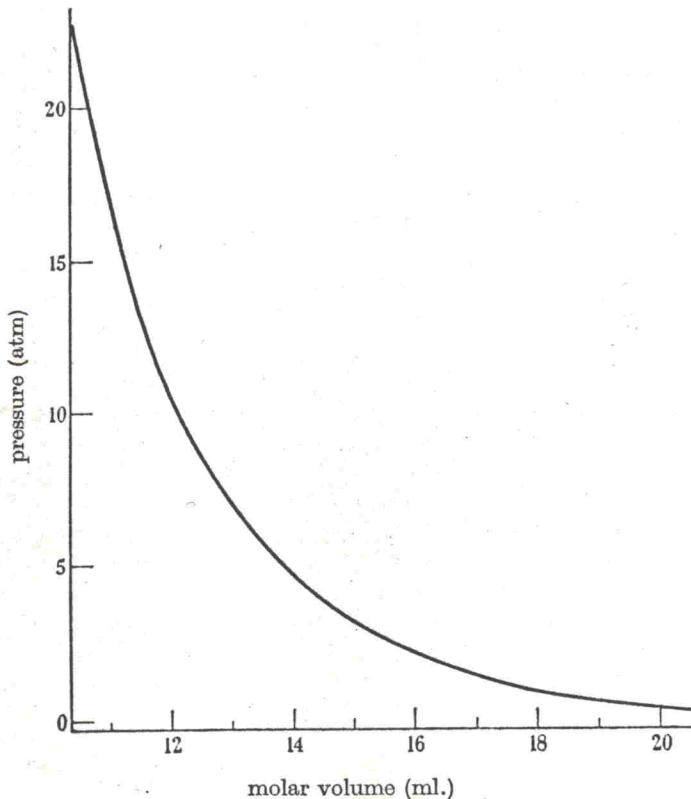


FIGURE 10. The pressure-volume relation in solid helium at  $0^\circ\text{K}$ .