

can derive the quantity

is approximately constant and  
 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  
 $p, V, T$  values on the melting  
 in figure 9, together with the  
 as.

be extrapolated to  $0^\circ\text{K}$  with  
 relationship at absolute zero can  
 from this in turn the compressi-  
 und and is shown in table 5.  
 res 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

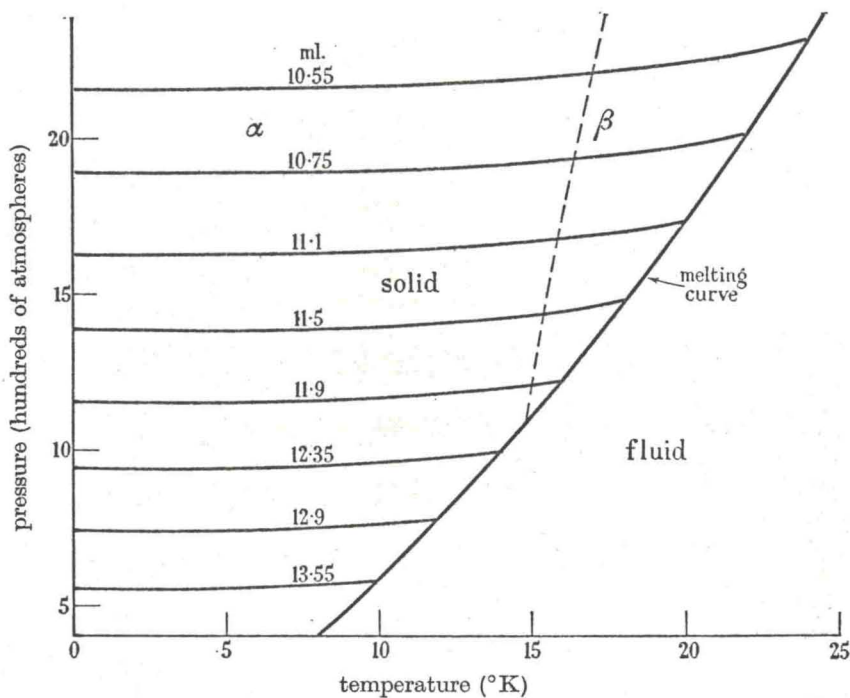


FIGURE 9. The isochores of solid helium at eight molar volumes.  
 ----, transition line in the solid.

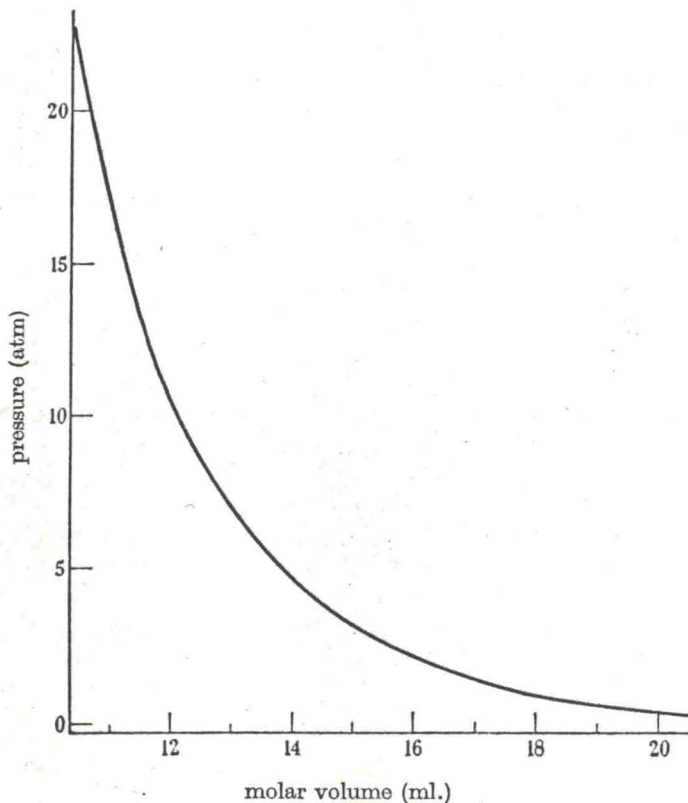


FIGURE 10. The pressure-volume relation in solid helium at  $0^\circ\text{K}$ .