

umes of BiBr_3 (l)⁷ and BiCl_3 (l)⁶ are, significantly smaller than the sum of the molar volumes of their respective elements from which they are formed. On this basis, BiI_3 (l) would show a tendency to disproportionate at high pressures whereas BiBr_3 (l) and BiCl_3 (l) become more stable. This difference in stability with pressure could account for the difference in behavior of the $\log \kappa$ vs $1/T$ and κ vs P curves of BiI_3 from those of BiBr_3 and BiCl_3 .

The activation energies (E_x) for BiCl_3 , BiBr_3 , and BiI_3 at $P \leq 0.1$ kbar were estimated from the slope of

the $\log \kappa$ vs. $1/T$ curves for these salts from data given by Grantham and Yosim^{2a} at temperatures immediately above the melting point. These estimated values of E_x at $P \leq 0.1$ kbar are compared with E_x at $P = 5.4$ kbars in Table III. The activation energies at these two pressures are essentially identical in the cases of BiCl_3 and BiBr_3 ; for BiI_3 , E_x at 5.4 kbars is almost four times its value at $P = 0$. This difference in E_x between bismuth triiodide and the tribromide and trichloride may be due to a greater effect of pressure upon ionic association in the case of BiI_3 .