

represent measurements uncorrected for impurity; the solid points have been corrected for impurity with equation 1. In drawing the curve, the points at 45°C were given little weight because the experimental data showed a large pressure range for the fusion, due to the increased amount of impurity.

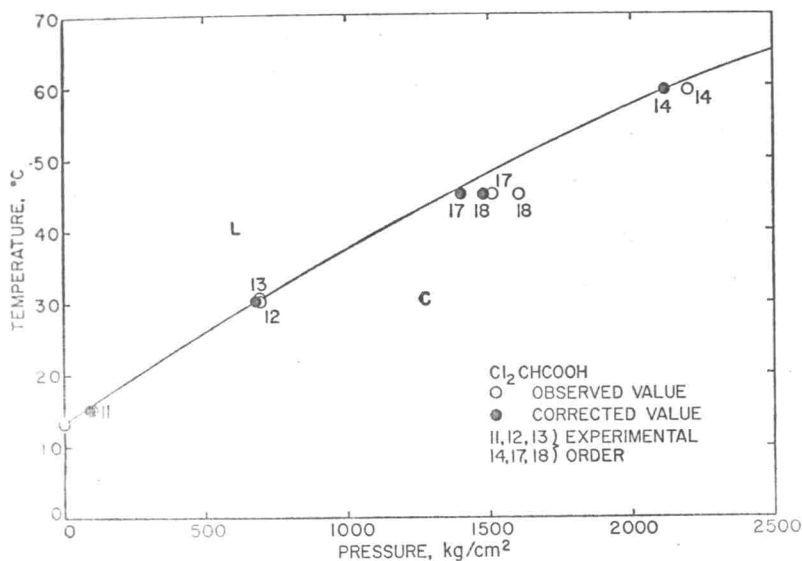


Fig. 2 — Phase diagram for dichloroacetic acid at elevated pressures.

#### 4.2. Monobromoacetic Acid

The purification of the monobromoacetic acid used has been described previously [1]; its purity had been determined cryoscopically to be 99.97 mole percent. The sample was introduced into the piezometric vessel by the procedure described in section 2. As the rate of the reaction between mercury and monobromoacetic acid would be expected to be greater at the higher temperatures, where the acid would be liquid, it was decided to look first for any solid-solid transitions, keeping the acid solid at all times.

A total of 20 experiments was made with this acid to obtain the data shown in figure 3. The experimental conditions during the piezometric experiments on the solid are given in table 2; resulting data for the solid-solid transitions are summarized in tables 3 and 4. The experimental conditions and data for the fusion are given in table 5.