pressure interval 5 to 45 kb. In all cases both samples showed a polymorphic transition at a pressure corresponding to P_{tr} found for pure KCl at the same corresponding temperature (*5*). Furthermore, the width of this transition pressure interval (P_w) (*5*, *6*) in these mixtures was approximately the same as P_w measured for pure KCl (*5*). The transition volume (ΔV_{tr}) for these compositions was found to be approximately 90% and 75%, respectively, of ΔV_{tr} measured for pure KCl at the same corresponding temperature (*5*).

B. *KCl–NaCl*

Mixtures with compositions between 5 and 95 m/o KCl were examined. Data for the mean transition pressure (P_{tr}^{m}) (*6*) found for the polymorphic phase change in binary salts in this system at isotherms 300 through 800° are shown in Fig. 1. The

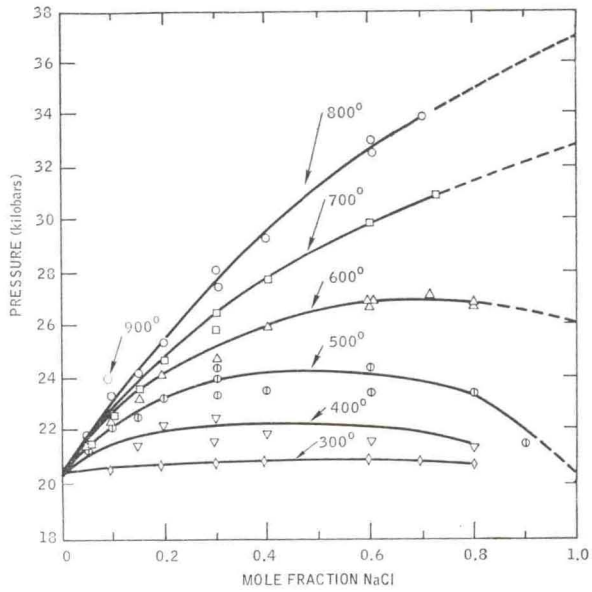

FIG. 1. Polymorphic transition pressure (P_{tr}^{m}) of salts in the KCl–NaCl system in the temperature range 300–900°.

width of the polymorphic transition pressure interval (P_w) measured for salts in this system is shown for two temperatures, 500 and 800°, in Fig. 2. The volume change which occurs during the polymorphic transition in these salts was also measured over the temperature interval 300° to 800° at 100° intervals. These transition volume data are shown in Fig. 3. Below 300° the transition of these mixtures is so sluggish and hysteresis so large that no reliable and reproducible extrapolation could be made from the pre- and post-transition P–V curves; thus no P_{tr} and ΔV_{tr} data are given for temperatures below 300°. From Fig. 3 it can be seen that the phase transition volume (ΔV_{tr}) becomes very small at high temperatures and at high mole fractions of NaCl. The highest composition of NaCl (95 m/o) for which a transition volume

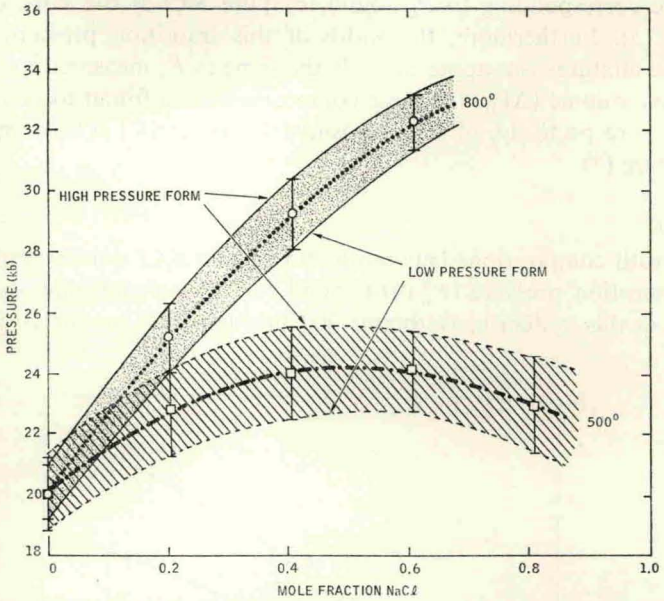

FIG. 2. Polymorphic transition pressure of salts in the KCl–NaCl system showing width of the transition pressure interval (P_w) at 500° and 800°.

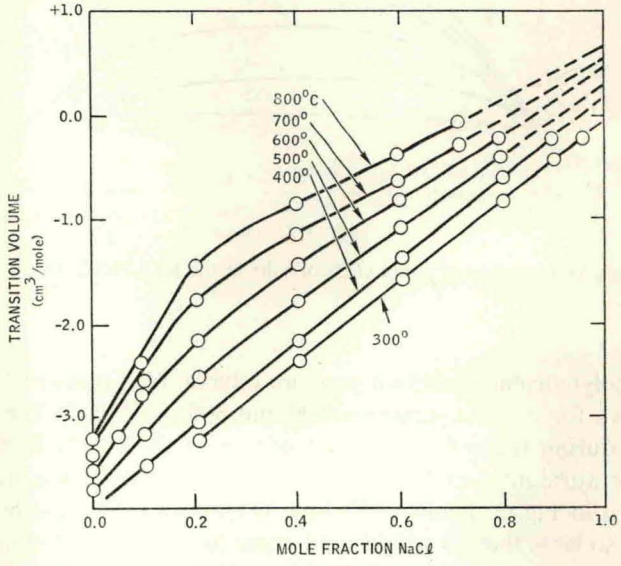

FIG. 3. Transition volume (ΔV_{tr}) of the pressure-induced phase change for salts in the KCl–NaCl system at the isotherms 300°–800°.