slope in Fig. 5, the best straight line is drawn through all the data points yielding $dT/dP = 2.1 \pm 0.1°K/kbar$. From this it is found that H_t (P=0) = 170 $\pm$ 10 cal/mole.

THE KINETICS OF ORDERING

The kinetics of the ordering reaction below T_c were studied in samples annealed for a prolonged period at 368°C so as to grow a large antiphase domain size. These samples were quenched and then held at constant temperatures ranging between 247 and 290°C under various pressures. During this second anneal the degree of long range order within the domains increases with no significant change in the domain size itself. Thus, changes in the sample resistance, R, are directly related to changes in the long range order parameter, S, and are expected to follow the equation

$$\frac{R - R_o}{R_e - R_o} = \coth (\alpha t + \beta)$$

To find the pressure and temperature dependence of the rate constant α from this equation, R_o and R_e must be determined as a function of T and P. R_e is the final resistance of the sample held for a long time at the temperature and pressure of interest. The determination of R_o as a function of temperature and pressure is more difficult. The procedure used is given in Appendix 1. Essentially, it consists of relating the order dependent resistance of a sample to the lattice parameter and then