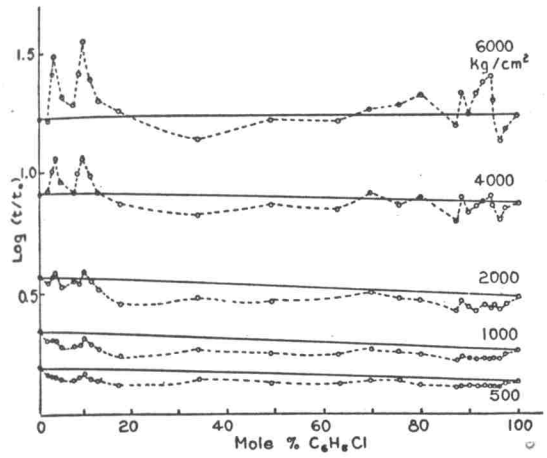

FIG. 3. Relative viscosity at 30° of *n*-hexane chlorobenzene against concentration.

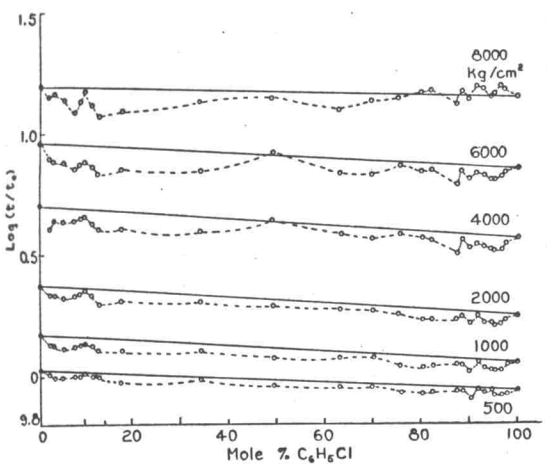

FIG. 4. Relative viscosity at 75° of *n*-hexane chlorobenzene against concentration.

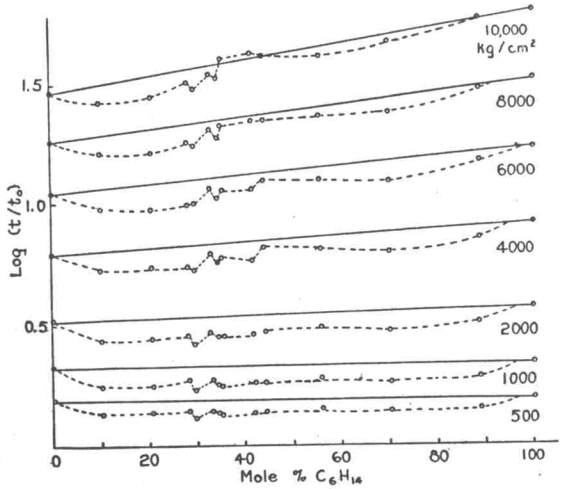

FIG. 5. Relative viscosity at 30° of *n*-hexane diethyl ether against concentration.

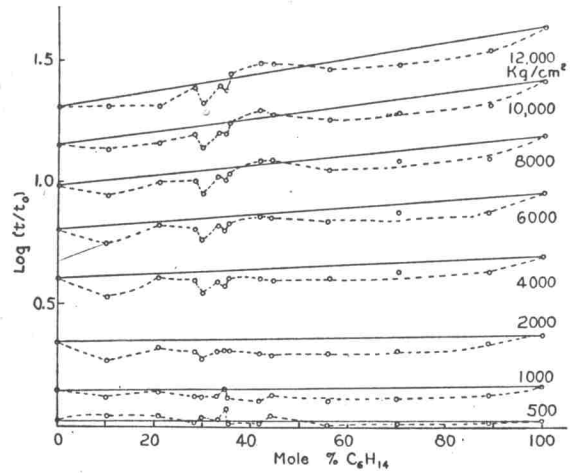

FIG. 6. Relative viscosity at 75° of *n*-hexane diethyl ether against concentration.

weight and molar fractions, indiscriminately. For an explanation of the other symbols used in Eqs. (4) to (7) the reader is referred to the original papers.

The two mixtures of the first group, *n*-hexane carbon disulphide and *n*-hexane *n*-decane, obey Arrhenius' empirical equation of mixture. In these cases, the pressure and temperature coefficients of viscosity of the components are additive in mixture, assuming no relative change in concentration with pressure and temperature change, for since

$$\eta = \eta^{x}\eta^{(1-x)},$$
$$\log_e \eta = x \log_e \eta_1 + (1-x) \log_e \eta_2,$$

and $1/\eta\, d\eta/dp = x/\eta_1(d\eta_1/dp) + 1 - x/\eta_2(d\eta_2/dp)$;
also, $1/t\, d\eta/dt = x/\eta_1(d\eta_1/dt) + 1 - x/\eta_2(d\eta_2/dt)$.

Consequently, it seems probable that the simple picture of interlocking of the long, similarly orientated molecules in these mixtures has some validity for one would not expect this type of interlocking to vary much with the concentration.

The log viscosity curves[16] of *n*-hexane diethyl

[16] Dotted lines have been drawn through the computed points while the solid straight lines in the figures represent the behavior of a mixture in which the pressure and temperature coefficients of viscosity of the components are additive. It is convenient to use these lines as bases of reference for the discussion of the actual curves.