and $\Delta V^{\ddagger}$ the 'free energy of activation', i.e. the difference between the free energy in the transition state and that of the reactants.
Then:

$$(\partial \ln k/\partial p)_T = -\Delta V^{\ddagger}/RT = (V_r - V^{\ddagger})/RT \qquad (A2)$$

Thus, from the pressure coefficient of the reaction velocity constant one can calculate the volume change between reactants and transition state. This is often very helpful in deciding between various reaction mechanisms and in formulating a picture of reaction dynamics.

In addition to the above comments on reaction in solution, it is appropriate to add a remark vis á vis the main theme of the paper. There has been a recent significant study[11A] of the effect of pressure to several hundred kilobars on reactivity of some aromatic diamine–chloranil complexes. In some cases the products could be reasonably identified.

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