CHAPTER II
SCOPE OF THE WORK ON CHROMIUM(VI) OXIDATION.

Examination of the literature presented in the review does not indicate any work to have been done on the oxidation of aromatic ketones. Since acetophenones contain only one type of enolisable hydrogen, this compound has been chosen for studying the kinetics to throw light on the nature of oxidation.

The following aspects have been investigated:

1. Order of oxidation with respect to the oxidant, the substrate and the acid.
2. Effect of dielectric constant on the rate of oxidation.
3. Evaluation of rate constants at various concentrations of acetophenone, p-nitro acetophenone and other substituted acetophenones.
4. Evaluation of the values of equilibrium constant of the complex and the rate of its decomposition at various temperatures.
5. Analysis of the products.