

S Y N O P S I S

The dissertation entitled " Kinetic study of oxidation of aromatic carboxylic acid hydrazides by Chloramine-T " consists of five chapters. Oxidation of aromatic carboxylic acid hydrazides have been carried out by chloramine-T in basic buffered medium. The detailed path of the oxidation of hydrazides has been established on the basis of various mechanistic criteria.

First chapter deals with the general introduction to the subject of kinetics, and reaction mechanism.

Second chapter is divided into three sections. First section (a) consists of literature survey of kinetics and mechanism of oxidation reactions by chloramine-T. In the second section (b) characteristics of chloramine-T have been described. Third part i.e. Section (c) includes applications and characteristics of acid hydrazide along with description of present study and its objects.

In the third chapter kinetic analysis of oxidation of 3-5 dinitro benzoic acid hydrazide and p-methoxy benzoic acid hydrazide in the basic buffered medium has been given. The kinetic study is carried out taking into consideration the different variables such as concentration of hydrazides,

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concentration of chloramine-T, temperature, change in pH, effect of addition of salt and change in the medium, on the rate of the reaction.

General conclusions and probable mechanism of the oxidation of aromatic hydrazides by chloramine-T have been discussed in the fourth chapter.

In the fifth chapter experimental part is described, which includes the preparation of the reductants and iodometric method for estimation of chloramine-T.