

PREFACE

The work described in this thesis entitled "Transition Metal-ion Mediated Hydroxylation Reactions" was initiated from an attempt to develop the chemistry of aromatic hydroxylation at room temperature.

The thesis consists of five chapters. A brief survey of known chemistry of transition metal-ion mediated hydroxylation reactions is presented in the Chapter I along with the purpose of the present investigation. The regioselective hydroxylations of naphthyl and phenyl rings via metaloxylation of orthopalladated compound with iodosylbenzene constitute the major part of Chapter II. Synthesis of new orthopalladate of phenylazo naphthol and its behaviour in presence of acid-base have also been described in this chapter. Chapter III mainly concerns the regiospecific hydroxylation of naphthyl group via metaloxylation of new orthop^dalladate of 1-(1'-naphthylazo)naphth- alene with aromatic peroxy acid. In Chapter IV, the synthesis, characterisation and metaloxylation reaction of new organopalladates having both σ and π metal-carbon bonds are described. Chapter V deals in the

regiospecific metaloxylation of of orthopalladates of aryl sulfides and aryl sulfoxides.

The present work was initiated in June, 1989 in the Department of Chemistry, University of North Bengal, under the supervision of Dr.P.Bandyopadhyay.

In keeping with general practice of reporting scientific observations, due acknowledgement has been made whenever the work described as based on the findings of other investigators. I must take the responsibility of any unintentional oversight and errors which might have crept in in spite of precautions.

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