Preface

Porphyrin chemistry is an old chemistry and is an area which is researched widely, in spite of the voluminous information available. Now porphyrins are synthesized and more new results appear in the literature everyday. This is because porphyrins are not only biologically important but also find their way in the field of medicine and material sciences. Quite a good number of modified and new porphyrin ligands are available in the literature. But metal complexes of such porphyrins are not properly explored. This provides us an opportunity to venture into this field of research. This thesis embodies the physico-chemical studies of some vanadyl porphyrins and manganese porphyrins which are not reported so far in the literature.

This thesis consists of five chapters. Chapter 1 presents a brief review of the EPR and Cyclic voltammetric studies of some vanadyl porphyrins.

Chapter 2 describes different experimental techniques and measurements used in the course of the investigation.

Chapter 3 presents cyclic voltammetric studies of some vanadyl porphyrins.
Chapter 4 deal with cyclic voltammetric studies of some manganese, cadmium and copper porphyrins.

Chapter 5 describes EPR of some substituted vanadyl mesotetraphenyl porphyrins oxidized with SbCl₅.