PREFACE

In modern age of technological progress, material science has come to assume a dominant position and fundamental research on different materials has now become a sustained process. The ferrite materials are being increasingly harnessed for diverse applications in communication, defence and aerospace technologies.

The dissertation work comprises FIVE chapters. In the first chapter, historical background, crystal structure and relevant theories are discussed briefly. At the end of the chapter orientation of work is given. Chapter II include mainly the preparation of ferrite by standard ceramic method and characterization of it by x-ray diffraction technique and I.R. spectroscopy. Chapter III has been devoted for the studies on magnetization, ac susceptibility and Curie temperature. Chapter IV covers the systematic study of dc resistivity and thermoelectric power.

Both the theoretical background and experimental results are supported by appropriate data and are illustrated with necessary figures. A list of references is given at the end of each chapter. Only in case of few references, it was not possible to refer the original work.