

## P\_R\_E\_F\_A\_C\_E

This dissertation work comprises five chapters in which attempt has been made to present the work carried out on the subject consistent with the development of the topic concerned. Chapter one mainly deals with ferrite materials and shows how theoretical consideration have been utilised to understand them. At the end of this chapter orientation of the present work is given, Chapter two is divided in two parts A, B, Part A deals with the preparation of ferites, Part B with x-ray diffraction studies. Studies on d.c. conductivity are presented in chapter three. The discussion is given at the end. Magnetisation studies are discussed in chapter four.

The theoretical as well as experimental results are illustrated with appropriate figures. Abbreviations are used wherever necessary. A list of references is incorporated at the end of each chapter. Only in case of few references it was not possible to refer to the original work.