

:: 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 consistant with the development of the topic concerned. In Chapter one is the introduction on ferrites, where in their structural electrical and magnetic properties are briefly reviewed. Chapter two is divided in two sections. Section A deals with the preparation conditions and preparation of materials and Section B with X-ray diffraction and microstructure studies. In Chapter three studies of magnetisation, Curie temperature and permeability are presented. In Chapter four d.c. and a.c. conductivity are presented. Each chapter is presented in a fashion in which the theories concerned and results and discussion on the basis of theories are given for completeness. Theoretical as well as experimental results are illustrated with appropriate figures and tables. whereyer necessary abbrevations are used. Lately summary of the work and conclusions are given in Chapter five. A list of references is incorporated at the end of each chapter. Only in case of few references it was not possible to refer the original work.