

PREFACE

An attempt has been made to present the subject matter consistent with the development of the topics concerned. This dissertation contains six chapters. The first chapter is mainly devoted to introduce sufficient theoretical considerations based on existing literature. At the end of this chapter, orientation of the present work is given. The second chapter consists of two parts, one gives outlines of the preparation methods and preparation of samples and other deals with X-ray diffraction studies. In chapters III to V the subject matter of dissertation is written according to the nature of studies to which ferroelectric sodium vanadate doped with different concentrations of Neodymium oxide were subjected, namely dielectric hysteresis and coercive studies, d.c. electrical conductivity and pyroelectricity. The sixth chapter gives the summary and conclusions of the work.

The theoretical background as well as the experimental results have been illustrated with appropriate figures and tables. Whenever necessary, the abbreviations are used. A list of reference is given at the end of each chapter. In case of few references it was not possible to refer to the original work.