

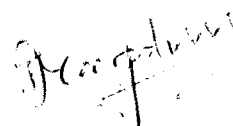
P R E F A C E

Ferroelectricity is a fascinating phenomenon which is to be found in many corners of solid state physics. The applications of ferroelectric materials are wide spread due to their challenging properties such as electrical, optical, mechanical, and thermal. So, ferroelectrics are of great scientific interest and economic importance.

In the present dissertation, attempt has been made to present the work carried out on the subject consistent with the development of the topic concerned. Chapter I deals with general introduction, sufficient theoretical background based on existing literature, properties and applications of ferroelectrics. At the end of this chapter orientation of the present work has been given. The second chapter consists of method of preparation of ferroelectric samples and X.R.D. and E.P.R. studies. Thermal properties along with impurity effects such as dielectric hysteresis, pyroelectricity, dielectric permittivity and d.c. conductivity are studied along with results and discussion in chapters III to VI respectively. The last chapter gives in brief the summary of the work.

At the end of each chapter there is a bibliography containing what we regard as the major references for the

present work. In case of few references it was not possible to refer to the original work. I assume responsibilities for the opinions expressed in the present dissertation and omissions and errors, if any in the body of the dissertation.



T. S. MAGDUM

M.Sc.B.Ed.

Department of Physics,
Vivekanand College,
KOLHAPUR