

PREFACE

Present age is the age of composite materials. Almost all the materials we use or come across in our day to day life are nothing but combination of different (individual) materials. It is found that when two or more materials are judiciously combined together the combination gives better performance than any one of them taken alone. And really this is the prime motive for designing of several composite materials to suit our specific requirements which cannot be met by single entity.

The present venture for the development of different polymer based composites as dielectric materials is described in this thesis. The subject matter of the thesis has been presented in four chapters. The introduction chapter includes a concise review of earlier work and a scope of the present investigation.

Chapter -2 includes a description of different materials used, methods applied for various composite preparation and different experimental procedures adopted for the measurement of dielectric, mechanical, and rheometric properties.

The third chapter is a systematic discussion of the results of present investigation. This chapter is divided into

four sub chapters on the basis of different composite systems chosen for study.

Chapter -4 is a brief summary of what is presented in the previous section inclusive of the conclusions arrived at with respect to the systems chosen for study.

Besides these an appendix which presents experimental results in the form of tables has been incorporated in the thesis.

The author has freely consulted the chemical abstracts, the physics abstracts, reviews, journals, and the standard text books on the subject in the preparation of the manuscript.