

## PREFACE

The present thesis entitled "Microwave absorption and relaxation mechanisms in some polar organic molecules in the liquid state" is submitted for the degree of Doctor of Philosophy (Science) of the University of North Bengal. It embodies the results of investigations on the microwave absorption in some polar organic molecules in the liquid state. The investigations were carried out at microwave absorption laboratory of the Optics Department at the Indian Association for the Cultivation of Science, Calcutta 700 032.

The thesis consists of eleven chapters and an appendix. The introductory chapter contains a short account of various theories of dielectric polarization together with a brief review of previous works and the scope and object of the present investigations. The experimental technique which are used in the present investigation are given in Chapter 2. The results of the present investigations are presented and discussed in Chapters 3 - 10. A summary of the results with conclusions is given in Chapter 11.

Most of the results have been published in the form of papers in different scientific journals. The available reprints are added at the end as an appendix.

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