

PREFACE

The present work was carried out in the Department of Physics and Meteorology, Indian Institute of Technology, Kharagpur during the period December 1971 to December 1974. The thesis reports the results of investigations on optical absorption, thermoluminescence and dielectric properties of single crystals of KBr, KBr:Ag and KI, KI:Ag before and after X-ray irradiation and electrolytic colouration.

This work forms part of a comprehensive programme of research being followed in this Department for the past two decades on colour centre phenomena and changes in electrical, optical, magnetic etc. properties of solids under different types of colouration.

Chapter I deals with a general introduction to the subject and scope of the present work.

Chapter II describes the various experimental methods and procedures adopted for undertaking different measurements.

Chapter III is devoted to the studies on optical properties of KBr, KBr:Ag, KI and KI:Ag single crystals before and after X-ray irradiation and electrolytic colouration.

Chapter IV presents the results on dielectric properties of these crystals.

A short summary of the results and conclusions of the present work is given in Chapter V.

References to previous work having a bearing on the present investigations have been compiled to the extent available from various sources and given at the end of the relevant Chapters.

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