

PREFACE

The present work has been carried out during the period September 1954 to May 1959. It consists of studies in four different problems, viz. - (i) Energy transfer and sensitised luminescence in $\text{CaF}_2:(\text{Ce}+\text{Mn})$ system, (ii) The optical properties of $(\text{TlCl}+\text{KCl})$ phosphors, (iii) Reflectance spectra of KCl:Tl phosphors, coloured by low energy electrons and (iv) absorption spectra of aqueous solutions of KCl-TlCl , NaCl-TlCl , and $\text{NH}_4\text{Cl-TlCl}$. In Chapter I, a brief General Introduction to the subject is given. In Chapter II, the scope and content of the present work and summary of the main results and conclusions are given. A brief summary is given at the end of each problem. Attempts have been made to consult previous work and collect references as far as practicable; it is however felt that it is still incomplete, since some of the sources are not available to the author.

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