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# PHOTO-ELECTRICITY

BY

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## PREFACE

SINCE the account of the photo-electric effect given by R. Ladenburg in the *Jahrbuch für Radioaktivität* for 1909, no complete resumé of the subject has been written. During the past five years, however, considerable progress has been made, and it is therefore thought desirable to give some account of the condition of the subject at the present time. Such an account is attempted in this book, all forms of ionisation by light being considered, whether in solids, liquids or gases.

The photo-electric effect is regarded as a form of ionisation by light and my original intention was to use the latter expression as the title of the book. But this title suggests perhaps not so much the study of the emission of electricity from illuminated surfaces among other phenomena, as a study merely of ionisation of gases; and as most of our information as to ionisation by light has been obtained from a study of the photo-electric effect in solids and liquids, it was thought that the title "Photo-Electricity" would be more suggestive of the contents of the book.

I wish to express my best thanks to Mr T. G. Bedford, the Editor of the Cambridge Physical Series, for many valuable suggestions and for help in the revision of the proofs.

A. LL. HUGHES.

HOUSTON, TEXAS.  
October 1913.

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