

Foreword

These lectures were delivered at Calcutta from October 6 to October 13, 1928. The audience consisted mainly of the staff and the advanced students of the University of Calcutta; but there were also present professors and students from Allahabad, Dacca and Vizianagram. It gave me great satisfaction ^(of having an opportunity) to speak to such a competent and at the same time patient audience about some problems of the most modern developments of the quantum theory and of having been able to retain their interest to the end. After each lecture keen discussions took place.

The topics presented in these lectures were selected parts of an appendix to my book "Atomic Structure and Spectral Lines", now in the press. This appendix will be published early

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next year as a separate book by Vieweg & Sohn, Braunschweig. This book will contain a fuller discussion of many points to which I could only allude in these lectures. I have to apologise for the very incomplete and abrupt manner in which I was obliged to proceed in these lectures in order to meet the interests of my audience and of myself.

The first three and the last two lectures were worked out by Mr. K.S. Krishnan (in a very independent way). I convey to him my cordial thanks for the care he bestowed on this work, although he was occupied with so much more important experimental work as collaborator of Dr. C.V. Raman in the discovery of the new scattering effect. The fourth and fifth lectures ~~were~~ dealing with the spinning electron according to Dirac's theory, were

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written by Dr. N. Sen of the Applied
Mathematics Department of the Calcutta
University. I wish to thank him
not only for the competent presentation
of my deductions but also for some
notes which he himself contributed.

May I be allowed to
dedicate this little book to my Indian
colleagues and friends, who received
me so kindly in this country. May
I also be allowed to offer my
sincerest congratulations for the
admirable achievements of Indian
Scientists during the last few years
and also to give expression to my
firm faith in a splendid future for
Indian research work.

A. Sommerfeld.

25th Calcutta, }
October, 1928 }