CONTENTS

CHAPTER		PAGE
I.	General Atomistics	1
II.	Isotopy	16
III.	Atomic Rays and Atomic Problems Solved by Their Means	45
IV.	Molecular Dipoles	58
V.	Nuclear Disintegration	68
VI.	The Fundamental Unit of Electricity	98
VII.	The Specific Charge of the Electron	124
VIII.	The Magneton	130
IX.	Super-Conductivity	146
X.	Crystal Conduction	155
XI.	(*a*) Transformations in the Physical Conditions of Atoms (*b*) Quanta-Excitation of Line Spectra	162
XII.	The Hydrogen Spectrum	184
XIII.	The Conditions for Excitation of the Roentgen Spectrum	198
XIV.	The Continuous X-ray Spectrum	214
XV.	Spectral Emissions and the Periodic System of Elements	234
XVI.	Emission and Absorption Phenomena within an Atom on the Basis of Bohr's Theory	241
XVII.	Resonance and Dispersion: the Compton Effect	253
XVIII.	The Extension of Our Knowledge of the Electromagnetic Spectra	271
XIX.	The Photoelectric Effect	303
XX.	Practical Applications of the Photoelectric Effect	311
XXI.	Spectralphotometric Problems	321
XXII.	Infra Red Frequencies of Chemical Radicals in Crystals	327

CHAPTER PAGE

XXIII. Structure Analysis by Means of X-rays 349
XXIV. The Physical Basis of Photochemistry 362
XXV. Illuminescence in Chemical Reactions 372
XXVI. Electron-Affinity 381
XXVII. Chemical Reactions by Means of Electronic Impact 386
XXVIII. Photochemical Catalysis 394
XXIX. Radiation Measurements 399
XXX. Atomism and Macrocosm 410