CONTENTS

						PAGE
RAYS OF POSITIVE ELECTRICITY	•••	• •	•	•	•	I
RECTILINEAR PROPAGATION OF THE	e Positiv	E RAY	s.	•	•	5
Double and Hollow Cathodes		• •	• •	•	•	5
On the Nature of the Positiv Electric and Magnetic For		THEIR	DEFLE	CTION	BY	16
ELECTROSTATIC DEFLECTION OF TH	E PARTIC	CLE .	•	•	•	19
WIEN'S PROOF OF THE MAGNETIC THE RAYS	AND ELI	ECTRIC	Defle	CTION	of	22
Experiments made by the Auth	or on Po	OSITIVE	RAYS	•	•	25
Effect at very Low Pressures	• •	• •	•	•	•	27
METHOD OF HOT CATHODES .		• •	•		•	35
Aston's Focus Method .	• •	• •	, .	•	•	36
Dempster's Method	• •		•	•	•	40
DISCUSSION OF THE PHOTOGRAPHS	• •		•	•	•	41
Loss and Gain of Charge by PA	ARTICLES		•	•	•	48
IONIZATION BY POSITIVE RAYS			•	•	•	54
Secondaries	• •		•	•	•	60
NEGATIVELY CHARGED PARTICLES	•••	• •	•	•	•	70
Multiply Charged Particles	• •	• •		•	•	77
Concentration of the Positive R.	AYS ROUN	d Defi	NITE VI	ELOCIT	IES	84
Origin of the Charged Atoms at Rays	ND MOLE	CULES 1	IN THE	Positi	IVE •	88
ELECTRIC FORCE IN THE DARK SP.	ACE .		•	•		108
Method of Consecutive System Fields	IS OF EL	ECTRIC	AND I	Magne [.]	TIC •	117
Methods for Measuring the Electrified Particles .	NUMBER	ог т • •	HE PO	SITIVE •	LY.	120
Charges Carried by the Atoms pound Gas	FROM A	Molec	ULE OI	FACC	ом- •	128

x CONTENTS										
RETROGRADE RAYS	•	•	•	•	•	•			•	PAGE I 34
Anode Rays .	•	•	•	•	•	•	•	•	•	142
DOPPLER EFFECT SHO	WN BY	z Pos	ITIVE	RAY	s	•	•		•	148
POLARIZATION OF LIG	HT FR	ом Р	OSITIV	E RA	YS	•		•	•	165
SPECTRA PRODUCED B	y Bor	IBARI	DMEN:	r wir:	н Ро	SITIVE	RAY	vs		169
Disintegration of M	ETALS	UND	ER TH	е Аст	ION (оғ Ро	SITIV	E RA	YS	171
Absorption of Gases	IN T	he D	ISCHA	RGE]	Cube	•		•	•	178
USE OF POSITIVE RAY	S FOF	с Сне	MICAI	ANA	LYSIS	s.	•	•	•	179
DISCUSSION OF PHOTO	GRAPH	IS	•	•	•	•		•	•	188
Examination of the barded by Catho			VEN C	out w	HEN	Solii	DS AR	е Во	м-	190
NATURE OF X ₃ , THE S	UBSTA	NCE	GIVIN	G THE	; '' 3'	' Lin	E			196
ORIGIN OF THE LINE	m/e =	3.2		•	•	•	•			203
Condensation of GA	SES OI	N THE	SUR	FACES	OF S	Solid	s			207
LINES DUE TO NEON			•	•	•	•				212
DETERMINATION OF A	томіс	Wei	GHTS	ву Р	OSITI	VE RA	AYS	•		216
STRUCTURE OF ATOMS	AND	Mole	CULE	s.	•	•	•			222
INDEX	•	•	•	•	•	•		•	•	235

LIST OF PLATES

Plate I (Figs. 1, 2, 3, 4) Plate II (Figs. 1, 2, 3, 4) Plate III (Figs. 1, 2, 3, 4) Plate IV (Figs. 1, 2, 3, 4) PLATE V (FIGS. 1, 2) Plate VI (Figs. 1, 2, 3, 4) PLATE VII (FIGS. 1, 2, 3, 4) PLATE VIII (FIGS. 1, 2, 3) Plate IX

At end of Volume