

# CONTENTS

	PAGE
INTRODUCTION . . . . .	xi

## *Part I—EXPLORATION*

CHAPTER		
I.	ENTER—THE ATOMIC AGE . . . . .	3
2.	THE TINY ATOM COMES INTO ITS OWN . . . . .	7
3.	OTHER ROADS LEAD TO THE ATOM . . . . .	18
4.	ATOMIC SECRETS FROM EMPTY TUBES . . . . .	31
5.	LIGHT ILLUMINATES THE ATOM . . . . .	40

## *Part II—ARCHITECTURE*

6.	RADIUM INTRODUCES ATOMIC ENERGY . . . . .	53
7.	DISCOVERING ATOMIC ARCHITECTURE . . . . .	66
8.	ATOM GUNS . . . . .	78
9.	MODERN ALCHEMY . . . . .	89
10.	FINDING THE NEUTRON . . . . .	101
11.	ATOMS AND THE UNIVERSE . . . . .	113
12.	MAN-MADE RADIOACTIVITY . . . . .	126

## *Part III—PRACTICAL ATOMIC ENERGY*

13.	SPLITTING URANIUM ATOMS . . . . .	137
14.	FIRST ATOMIC-ENERGY MACHINE . . . . .	149
15.	PLUTONIUM—LARGE-SCALE ALCHEMY . . . . .	163
16.	HEAVY WATER . . . . .	175
17.	U <sub>2</sub> 35 . . . . .	183
18.	USING ELECTROMAGNETS . . . . .	189
19.	THE ATOMIC BOMB . . . . .	195
20.	ALAMOGORDO THROUGH BIKINI . . . . .	203

## *Part IV—YOUR ATOMIC AGE*

21.	ENERGY AND POWER . . . . .	215
22.	HARNESSING THE ATOM . . . . .	224

23. SEVEN-LEAGUE BOOTS . . . . .	236
24. TAGGING THE ATOM . . . . .	246
25. MEDICINE IN THE ATOMIC AGE . . . . .	256
26. ATOMIC WAR—WORLD SUICIDE? . . . . .	268
INDEX OF NAMES . . . . .	277
SUBJECT INDEX . . . . .	279