

TABLE OF CONTENTS

INTRODUCTION	vii
I. THE SECRET RECESSES OF MATTER	
1. The structure of the atom	1
2. Bombarding the nucleus	18
II. THE SECRETS OF MATTER WILL BE REVEALED	
3. The first accelerators	24
4. The neutron—an unusual missile	33
III. PHYSICISTS NEED PARTICLES OF HIGHER ENERGY	
5. Linear resonance accelerators	44
6. The cyclotron	48
7. "Almost with the velocity of light"	59
IV. NEW IDEAS—NEW ACCELERATORS	
8. Principle of auto-phasing	72
9. Phasotron and synchrotron	77
10. The rebirth of the linear accelerator	86
11. The synchrophasotron	90
V. IN SEARCH OF NEW PATHS	
12. Some results obtained with giant accelerators	96
13. One more step upwards	102
14. Accelerators of the near future	111
REFERENCES	115
APPENDIX	116
INDEX	119