

CONCEPTS OF MODERN PHYSICS

ARTHUR BEISER

THIRD EDITION



INTERNATIONAL STUDENT EDITION

CONTENTS

PREFACE

	Preface	vii
Chapter 1	Special Relativity	1
Chapter 2	Particle Properties of Waves	39
Chapter 3	Wave Properties of Particles	73
Chapter 4	Atomic Structure	101
Chapter 5	Quantum Mechanics	141
Chapter 6	Quantum Theory of the Hydrogen Atom	175
Chapter 7	Many-Electron Atoms	209
Chapter 8	Physics of Molecules	249
Chapter 9	Statistical Mechanics	281
Chapter 10	The Solid State	321
Chapter 11	The Atomic Nucleus	369
Chapter 12	Nuclear Transformations	403
Chapter 13	Elementary Particles	455
Appendix I	Operators, Eigenfunctions, and Eigenvalues	499
Appendix II	The Harmonic Oscillator	505
Appendix III	Statistical Distribution Laws	509
	Answers to Odd-Numbered Problems	519
	Index	527