

CONTENTS

	<i>Page</i>
<i>Foreword</i>	vii
<i>Acknowledgements</i>	ix
<i>Abbreviations and units</i>	xi
<i>Chapter</i>	
1. TEMPERATURE AND QUANTITIES OF HEAT	1
2. THERMAL EXPANSION	20
3. TWO-PHASE SYSTEMS	40
4. TRANSFERENCE OF HEAT	54
5. KINETIC THEORY AND LIQUEFACTION OF GASES	74
6. MIRRORS AND LENSES	90
7. COLOUR AND OPTICAL INSTRUMENTS	111
8. QUANTITIES OF LIGHT	135
9. WAVE THEORY—OPTICAL AND SONIC	152
10. SOUNDS AND THEIR PRODUCTION	169
11. ACCURATE MEASUREMENT USING INTERFERENCE AND DIFFRACTION	193
12. ELECTRICAL ENGINEERING AND PHYSICS	214
13. MECHANICAL ENGINEERING AND PHYSICS	241
14. NUCLEAR AND SOLID STATE ENGINEERING AND PHYSICS	261

APPENDICES

<i>Appendix</i>	
1. EQUATION FOR AN ADIABATIC EXPANSION	288
2. THE MAXWELL RELATIONS	289
3. FRACTIONAL CHANGE OF VOLUME OF A GAS AT LOW PRESSURE, FOR AN ISOTHERMAL CHANGE BETWEEN FIXED ADIABATICS	291
4. DIFFERENCE OF SPECIFIC HEATS	292

CONTENTS

<i>Appendix</i>	<i>Page</i>
5. EQUATION OF EQUILIBRIUM BETWEEN TWO PHASES	293
6. PARTICULAR SOLUTION OF EQUATIONS (10.27) AND (10.28)	294
7. RELATION BETWEEN RIGIDITY MODULUS AND COEFFICIENT OF VISCOSITY	294
8. EFFECTIVE MASS OF ELECTRON IN CRYSTAL	295
9. DERIVATION OF MAXWELL'S EQUATIONS	295
10. RELATIVITY FORMULAE FOR DISTANCE, TIME, VELOCITY AND ACCELERATION	298
11. MAGNIFICATION BY SPHERICAL REFRACTING SURFACE	299
<i>Answers to exercises</i>	300
<i>Index</i>	303