

Section A: Particles

About this book v

Chapter 1: Kinetic Theory and Diffusion 1

Chapter 2: Atomic Structure 6

Chapter 3: Bonding 13

Chapter 4: Structure 23

Chapter 5: Formulae and Equations 33

Chapter 6: Rates of Reaction 41

Section B: Some Essential Background Chemistry

Chapter 7: Oxygen and Oxides 54

Chapter 8: The Reactivity Series 60

Chapter 9: Acids 70

Chapter 10: Making Salts 81

Chapter 11: Separating and Analysing 89

Chapter 12: The Periodic Table 99

Chapter 13: Electrolysis 112

Chapter 14: Introducing Energy Changes in Reactions 120

Chapter 15: Introducing Reversible Reactions 125

Section C: Large-scale Inorganic Chemistry

Chapter 16: Manufacturing Chemicals 133

Chapter 17: Metals 139

**Section D:
Organic Chemistry**

Chapter 18: Introducing Organic Chemistry	149
Chapter 19: Alkanes, Alkenes and Alcohols	156
Chapter 20: Useful Products from Crude Oil	163
Chapter 21: Polymers	169

**Section E:
Chemistry
Calculations**

Chapter 22: RAMs and Moles	176
Chapter 23: Calculations from Equations	187
Chapter 24: Electrolysis Calculations	196
Chapter 25: Energy Calculations	202
Chapter 26: Titration Calculations	209

Appendices

Appendix A: A Guide to Practical Questions	218
Appendix B: The Periodic Table	226
Index	227