

CONTENTS

Chapter 1	An Introduction to Materials Characterization and Chemical Analysis	2
Chapter 2	Molecular Spectroscopy	13
Chapter 3	Mass Spectrometry	45
Chapter 4	Chromatography	61
Chapter 5	Chemical Analysis, Electrochemistry and Atomic Spectroscopy	85
Chapter 6	X-Ray Analysis	115
Chapter 7	Microscopy	137
Chapter 8	Surface Analysis	167
Chapter 9	Thermal Analysis	205
Chapter 10	The Viscosity and Molecular Weight of Polymers	229
Chapter 11	Physical Properties of Particles and Polymers	251
Chapter 12	Physical Testing	273
Chapter 13	Scientific Computation	291
	Conversion Factors	305
	Index	307