CONTENTS

	Preface	vii
1.	Introduction	1
<i>2</i> .	Experimental Techniques	22
3.	Treatment of Data	43
4.	Unimolecular Gas-phase Decomposition Reactions	61
5.	Third-order Gas-phase Reactions	80
6.	Bimolecular Gas-phase Reactions	98
<i>7</i> .	Isotopic Exchange Reactions in Aqueous Solutions	118
8.	Redox Reactions Between Metal Ions in Aqueous Solutions	157
9.	Some Reactions of Ions and Molecules of Non-metallic Elements in Aqueous Solutions	190
10.	Some Further Reactions of Metal Ions in Aqueous Solutions	206
11.	Reactions of the Hydrated Electron	216
<i>12</i> .	Substitution Reactions of Octahedral Complexes	223
13.	Substitution Reactions of Square-planar Complexes	250
14.	Substitution Reactions of Tetrahedral Complexes	262
<i>15</i> .	Acid-Base Reactions	272
	Appendixes	275
	Bibliography	291
	Author Index	293
	Subject Index	299