

CONTENTS

Contributors List	vii
Editor's Preface	xi
Acknowledgements	xiii
Common Abbreviations	xv

PART I ANALYSES OF LABILE AND POLAR COMPOUNDS

1. Gaskell	: Overview to Part I	3
2. Murphy and Harper	: Mass spectrometry of leukotrienes	11
3. Costello	: Sample preparation for FAB and FD mass spectrometry of polar analytes	31
4. Caprioli	: Direct analysis of biochemical reactions in aqueous solutions	41
5. Whitney	: Novel MS approaches to the analysis of free and conjugated bile salts	61
6. McCloskey	: Experimental approaches to the characterization of nucleic acid constituents by mass spectrometry	75
7. Millington	: New methods for the analysis of acylcarnitines and acyl-coenzyme A compounds	97
8. Straub	: 'Metabolic mapping' of drugs: rapid screening for polar metabolites using FAB MS/MS	115

PART II ANALYSES AT HIGH MASS

9. Gaskell	: Overview to Part II	137
10. Dell and Panico	: High mass FAB studies of peptides, oligosaccharides and glycoconjugates	149
11. Reinhold	: Structural elucidation of complex carbohydrates	181
12. Grotjahn	: Fast atom bombardment mass spectrometry of oligonucleotides	215
13. Green and Bordoli	: High mass capabilities of sector mass spectrometers	235
14. Sheil and Derrick	: Collision-induced decomposition of peptide ions	251

15. Roepstorff and Sundqvist	: Plasma desorption mass spectrometry of high molecular weight biomolecules	269
16. Jardine	: Mass spectrometric analysis of biological oligomers	287
17. Russell and Castro	: High mass Fourier transform mass spectrometry: present capabilities and future potential	313

PART III

TRACE ANALYSES

18. Gaskell	: Overview to Part III	341
19. Gaskell, Leith and Gould	: High sensitivity determinations of steroids in physiological fluids and tissues	347
20. Harvey	: Trace analysis of the cannabinoids	363
21. Garland and Barbala	: Analysis of drugs in biological matrices using gas chromatography–electron capture negative chemical ionization mass spectrometry	379
22. Faull and Beck	: Quantification of neurotransmitters and related compounds by electron capture chemical ionization GC–MS	403
23. Ishibashi, Yamashita, Watanabe and Miyazaki	: Microdetermination of prostaglandins and thromboxane B ₂ by gas chromatography–high resolution selected ion monitoring	423
24. Desiderio and Fridland	: Mass spectrometric measurement of neuropeptides	443
25. Johnson, Lee, Lee and Yost	: Triple quadrupole MS/MS in biomedical research	459
26. Henion and Covey	: The determination of drugs in urine by LC–MS and LC–MS/MS	477