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| Nota di contenuto | LC/MS APPLICATIONS IN DRUG DEVELOPMENT; CONTENTS; Preface; Acknowledgments; 1. Introduction; Emerging Analytical Needs; Integration of LC/MS into Drug Development; Partnerships and Acceptance; Overview; 2. Drug Development Overview; Analysis Perspectives; The Four Stages of Drug Development; Drug Discovery; Preclinical Development; Clinical Development; Manufacturing; 3. Accelerated Drug Development; Accelerated Development Strategies; Quantitative and Qualitative Process Elements; Quantitative Process Pipeline; Qualitative Process Pipeline; Motivating Factors Analysis Opportunities for Accelerated DevelopmentFull-Time Equivalent; Sample Throughput Model; Elimination Model; Rate- |

Determining Event Model; Accelerated Development Perspectives; 4. LC/MS Development; The Elements of LC/MS Application; HPLC; Mass Spectrometry; LC/MS Interface; LC/MS Growth; 5. Strategies; Standard Methods; Template Structure Identification; Databases; Screening; Integration; Miniaturization; Parallel Processing; Visualization; Automation; Summary; 6. LC/MS Applications; Drug Discovery; Proteomics; Protein Expression Profiling; Quantitation; Glycoprotein Mapping
Natural Products DereplicationLead Identification Screening; Bioaffinity Screening; Combinatorial Library Screening; Open-Access LC/MS; Structure Confirmation; High Throughput; Purification; Combinatorial Mixture Screening; In Vivo Drug Screening; Pharmacokinetics; In Vitro Drug Screening; Metabolic Stability Screening; Membrane Permeability; Drug-Drug Interaction; Metabolite Identification; Preclinical Development; Metabolite Identification; Impurity Identification; Degradant Identification; Clinical Development; Quantitative Bioanalysis-Selected Ion Monitoring
Quantitative Bioanalysis-Selected Reaction MonitoringQuantitative Bioanalysis-Automated Solid-Phase Extraction; Quantitative Bioanalysis-Automated On-Line Extraction; Metabolite Identification; Degradant Identification; Manufacturing; Impurity Identification Using Data-Dependent Analysis; Peptide Mapping in Quality Control; Patent Protection; 7. Future Applications and Prospects; Workstations; Multidimensional Analysis; Miniaturization; Information Management; Strategic Outsourcing; Summary; 8. Perspectives on the Future Growth of LC/MS; 9. Conclusions; Glossary; References; Index

Sommario/riassunto

Breakthroughs in combinatorial chemistry and molecular biology, as well as an overall industry trend toward accelerated development, mean the rate of sample generation now far exceeds the rate of sample analysis in the pursuit of producing new and better pharmaceuticals. LC/MS is an analytical tool that helps the researcher identify the most promising sample early in the selection process, effectively creating a shortcut to finding new drugs. This book is the first to describe LC/MS applications within the context of drug development, including the discovery, preclinical, clinical, and manufac