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Autore	Holloway Michael D. <1963->
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Nota di contenuto	Cover -- Series Page -- Title Page -- Copyright Page -- Dedication Page -- Contents -- Preface -- Acknowledgement -- Introduction -- Wet Chemical Analysis -- Wet Chemical Methods -- Titration Methods -- Gravimetric Methods -- Colorimetric Methods -- Precipitation Methods -- Extraction Methods -- Instrumental Chemical Analysis -- Common Chemical Analysis Techniques -- Thermal Analysis -- Applications of Chemical Analysis Techniques -- Common Root Cause for Faulty Data and Suggested Remedies -- How to Decide on Which Instrumental Analytical Methods to Use -- Analysis Reasoning -- Why Spectroscopy? -- Why Chromatography? -- Why Wet Chemical Methods? -- Why Electrochemical Methods? -- Why Microscopy? -- Why Elemental Analysis? -- Why Thermal Analysis? -- Establishing a Designed Experiment (DoX) -- Steps in the DoX Selection Process -- Setting Up the DoX -- Laboratory Management -- Samples -- The Significance of Standardized Sample Preparation -- Developing and Implementing Standardized Sample Preparation Procedures -- Benefits of Standardized Sample Preparation -- Developing and Maintaining a Robust Sample Management System in an Analytical Laboratory: Ensuring Sample Integrity and Preventing Cross-Contamination -- The Significance of Sample Management -- Developing a Robust Sample Management System -- Maintaining Sample Management Integrity -- Instrumentation -- The Importance of Preventive Maintenance and

Calibration -- Establishing a Preventive Maintenance Schedule and Calibration Program -- The Significance of Instrument Validation -- Validating Analytical Instruments -- Benefits of Instrument Validation -- Establishing and Maintaining Comprehensive Records -- Benefits of Comprehensive Record-Keeping -- Validating and Verifying Analytical Methods: Ensuring Accuracy and Precision in an Analytical Laboratory. The Importance of Validation and Verification -- Method Validation -- Method Verification -- Continuous Monitoring and Maintenance -- Regularly Updating Methods and Maintaining Documentation: Ensuring Methodological Excellence in an Analytical Laboratory and The Significance of Regular Method Updates and Documentation -- Regular Method Updates -- Maintaining Documentation -- Quality -- Components of a QMS -- Benefits of Implementing a QMS -- Establishing and Maintaining Quality Control Procedures for Analytical Laboratories: Ensuring Accuracy and Reliability of Analytical Results -- The Significance of Quality Control Procedures -- Establishing Quality Control Procedures -- Benefits of Quality Control Procedures -- Data -- Implementing a Secure Data Management System for Analytical Laboratories: Ensuring Data Integrity and Reliability -- The Significance of Secure Data Management -- Implementing a Secure Data Management System -- Data Management System Benefits -- The Significance of Data Retention Policies -- Developing Data Retention Policies -- Benefits of Data Retention Policies -- The Significance of Calibration and Verification -- Establishing a Calibration Schedule and Verification Protocols -- Benefits of Calibration and Verification -- The Significance of Comprehensive Documentation -- Establishing a Comprehensive Documentation System -- Benefits of Comprehensive Documentation -- Audit Preparedness -- Preparing for Audits and Inspections -- Benefits of Audit Preparedness -- The Significance of Emergency Response Plans -- Developing and Regularly Reviewing Emergency Response Plans -- Benefits of Emergency Response Plans -- Regulatory Compliance -- Staying Up-to-Date with Regulations and Standards -- Benefits of Regulatory Compliance.

Designing and Maintaining Laboratory Facilities: Ensuring Optimal Environmental Control in an Analytical Laboratory -- The Importance of Environmental Control -- Designing Laboratory Facilities with Environmental Controls -- Maintaining Environmental Control -- Accurate Inventory Management -- Maintaining Accurate Inventories and Stock Management -- Benefits of Accurate Inventory Management -- The Significance of Proper Waste Disposal -- Establishing and Implementing Proper Waste Disposal Procedures -- Benefits of Proper Waste Disposal -- Effective Communication and Collaboration -- Fostering Effective Communication and Collaboration -- Benefits of Effective Communication and Collaboration -- Delivering Excellent Client Service -- Benefits of Excellent Client Service -- The Significance of Continuous Improvement -- Implementing a Culture of Continuous Improvement -- Benefits of Continuous Improvement -- Staff -- Implementing and Maintaining a Qualified Staff -- Benefits of a Qualified Staff -- The Significance of Training and Professional Development -- Establishing a Training and Professional Development Program -- Benefits of Training and Professional Development Programs -- Laboratory Financial Considerations -- General Accounting for the Laboratory -- Establishing a Budget -- Developing a Standard Operating Procedure -- Laboratory Safety -- Common Statistical Tools Useful for Data Interpretation -- Test Result Reporting -- Glassware Considerations -- Abbreviations Used in Analytical Chemistry -- Abbreviations for Reagents and Substances -- Abbreviations for Units and Measurements: -- Abbreviations for

Analytical Techniques and Instruments: -- Part 1: Wet Chemistry -- Titration -- Acid-Base Titrations -- Glassware -- Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Redox Titration -- Glassware. Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Complexometric Titration -- Glassware -- Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Gravimetric Methods -- Precipitation Gravimetry -- Glassware -- Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Volatilization Gravimetry -- Glassware -- Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Precipitation Methods -- Selective Precipitation -- Glassware -- Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Extraction Methods -- Liquid-Liquid Extraction -- Glassware -- Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Solid-Phase Extraction (SPE) -- Glassware -- Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Digestion Methods -- Glassware -- Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Colorimetric Methods -- UV-Visible Spectrophotometry (Wet Chemistry Method) -- Glassware -- Reagents -- Solvents -- Units of Measure -- Pitfalls to Avoid -- Report Format -- Applications -- Part 2: Instrumental Analysis -- Spectroscopy -- Nuclear Magnetic Resonance (NMR) -- Principles -- Techniques -- Components -- Applications -- Statistical Tools Useful for Data Interpretation -- Test Reporting -- Common Root Cause for Faulty Data and Suggested Remedies -- Abbreviations -- Nuclear Magnetic Resonance Imaging (MRI) -- Principles -- MRI Techniques -- Components -- Applications of MRI in Chemical Analysis -- Statistical Tools Useful for Data Interpretation -- Test Result Reporting. Common Root Cause for Faulty Data and Suggested Remedies -- Abbreviations -- Raman Spectroscopy -- Principles -- Techniques -- Components -- Applications of Raman Spectroscopy -- Statistical Tools Useful for Data Interpretation -- Test Result Reporting -- Common Root Cause for Faulty Data and Suggested Remedies -- Abbreviations of Raman Spectroscopy -- Ultraviolet-Visible (UV-Vis) Spectroscopy -- Principles -- Techniques -- Components -- Applications -- Statistical Tools Useful for Data Interpretation -- Reporting Test Results -- Common Root Cause for Faulty Data and Suggested Remedies of Ultraviolet-Visible (UV-Vis) Spectroscopy -- Abbreviations of Ultraviolet-Visible (UV-Vis) Spectroscopy -- Infrared Spectroscopy (IR) -- Principles -- Techniques -- Applications -- Components -- Statistical Tools Useful for Data Interpretation -- Test Result Reporting -- Common Root Cause for Faulty Data and Suggested Remedies -- Abbreviations -- X-Ray Crystallography -- Principles -- Key Principles of X-Ray Crystallography -- Techniques -- Components -- Applications -- Statistical Tools Useful for Data Interpretation -- Test Result Reporting -- Common Root Cause for Faulty Data and Suggested Remedies -- Abbreviations used in X-Ray Crystallography -- Microscopy -- Transmission Electron Microscopy (TEM) and Scanning Electron Microscopy (SEM) -- Abbreviations for Transmission Electron Microscopy (TEM) -- Abbreviations for Scanning Electron Microscopy (SEM) -- Transmission Electron Microscopy -- Principles -- Techniques -- Components -- Applications -- Statistical Tools Useful for Data Interpretation -- Specialized Statistical Tools -- Test Result Reporting -- Common Root Cause for Faulty Data and Suggested Remedies -- Abbreviations -- Scanning Electron Microscopy (SEM) -- Principles --

Sommario/riassunto

The Analytical Chemistry Laboratory Companion is essential for both students and professionals, as it provides quick, clear explanations on critical topics in analytical chemistry, equipping you with the statistical tools necessary to ensure accurate and reliable data interpretation. The Analytical Chemistry Laboratory Companion serves as a reference guide for students and professionals alike who need quick explanations on specific topics, laboratory operations, the structure of designing experiments, and the use of statistics to gain increased accuracy, precision, repeatability, and reproducibility of data. This volume will also provide in-depth and advanced studies and build the necessary background knowledge for success in the field. This companion provides a concise examination of the various analytical tools used for chemistry, and defines basic analytical instrument principles, techniques, and applications in addition to exploring statistical tools useful in data interpretation, test result reporting, and common root causes for faulty data with suggested remedies. The introduction provides a concise guide on foundational topics such as developing standard operating procedures, laboratory safety, instrumental analytical methods, and common statistical tools useful for data interpretation. This companion covers both wet chemical and instrumental analysis, including their principles, applications, and pitfalls. The Analytical Chemistry Laboratory Companion is a must-have, comprehensive guide in the field of analytical chemistry.