DESCRIPTION

A comprehensive study of analytical chemistry providing the basics of analytical chemistry and introductions to the laboratory

- Covers the basics of a chemistry lab including lab safety, glassware, and common instrumentation

- Covers fundamentals of analytical techniques such as wet chemistry, instrumental analyses, spectroscopy, chromatography, FTIR, NMR, XRF, XRD, HPLC, GC-MS, Capillary Electrophoresis, and proteomics

- Includes ChemTech an interactive program that contains lesson exercises, useful calculators and an interactive periodic table

- Details Laboratory Information Management System a program used to log in samples, input data, search samples, approve samples, and print reports and certificates of analysis

ABOUT THE AUTHOR

BRYAN M. HAM, Ph.D., has worked in analytical chemistry laboratories for over 25 years including petroleum, chemical, environmental, foodstuff, and life science research, and has a doctorate in analytical chemistry. He has published 15 research papers in peer reviewed journals and two books: Even Electron Mass Spectrometry with Biomolecule Applications (Wiley, 2008), and Proteomics of Biological Systems: Protein Phosphorylation Using Mass Spectrometry Techniques (Wiley, 2012). He is
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**AIHUI MAHAM, Ph.D.**, is an expert in nano-materials including the synthesis and characterization of chemical and biological nano-sensors. She is also an expert in the field of inorganic materials chemistry, and their characterization utilizing methodologies such as SEM, XRD, XRF and OES. She has published numerous research papers including a recent review entitled *Protein-Based Nanomedicine Platforms for Drug Delivery* (Small, 2009), which has been cited over 170 times by other researchers. She is currently working for the Department of Homeland Security at the U.S. Customs and Border Protection New York Laboratory.

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