

New Edition of
a Bestseller!

Get a Better understanding of the Practical Benefits of ICP-MS

PRACTICAL GUIDE TO ICP-MS

A TUTORIAL FOR BEGINNERS, SECOND EDITION

Robert Thomas
Scientific Solutions,
Gaithersburg, Maryland, USA

A Volume in the
Practical Spectroscopy series

 CRC Press
Taylor & Francis Group

A Reader-friendly ICP-MS Practical Reference Book for the Beginner

Whatever your ICP-MS experience, you probably know that there aren't many books that provide a practical perspective of the technique, which are written specifically for the novice user. There are many books written by academics that approach ICP-MS from a purely theoretical and fundamental perspective. They are definitely exhaustive and comprehensive, but if you need a straight forward, simplified guide to the technique, together with a basic understanding of the practical benefits the technology has to offer, you won't find it in these difficult-to-read encyclopedic volumes.

Updated Reference Book on ICP-MS Changes the Landscape of Trace Element Analysis

You'll be glad to know that the landscape is changing. With the publication of **Practical Guide to ICP-MS: A Tutorial for Beginners, Second Edition** the user community has an updated reference book that covers everything a beginner needs to know. Aimed specifically at analytical chemists who are not familiar with the technique, together with novice users who have just started using it, this new, revised, and rewritten manuscript includes—

- ✓ New chapter on Trace Element Speciation using HPLC-ICP-MS
- ✓ New comprehensive easy-to-understand Glossary/dictionary of ICP-MS terms
- ✓ Extensive revisions to the chapter on How to Select an ICP-MS
- ✓ Applications section incorporates solutions to more and diverse application problems
- ✓ Rewritten chapter on collision/reaction cells and interfaces takes a detailed look at the different commercial approaches
- ✓ Updated chapter on alternative sample introduction techniques, including all the new commercially-available systems
- ✓ Revised chapter on comparing ICP-MS with other Atomic Spectroscopy techniques to reflect technological developments over the past four years

Examines the Subject Matter from a Unique Perspective

Written by an insider with more than 20 years experience in product development, application support, and marketing for an ICP-MS vendor, the book highlights this powerful ultra trace-element technique as a practical solution to real-world problems. The author describes the basic principles and application benefits of ICP-MS in a way that is compelling and easy to understand. He also offers guidance on how to evaluate the capabilities of the technique when looking to purchase commercial ICP-MS instrumentation. The in-depth presentation of analytical advantages and practical capabilities of ICP-MS from someone who has been involved in product and application development, gives the author a unique insight into the technique and therefore makes the book an important part of any laboratory toolkit.

C O N T E N T S

Overview of ICP Mass Spectrometry
Principles of Ion Formation
Sample Introduction
Plasma Source
Interface Region
Ion Focusing System
Mass Analyzers: Quadrupoles
Technology
Mass Analyzers: Double-Focusing
Magnetic Sector Technology
Mass Analyzers: Time-Of-Flight
Technology
Mass Analyzers: Collision/Reaction
Cell and Interface Technology
Ion Detection
Peak Measurement Protocol
Methods of Quantitation
Review of Interferences
Contamination Issues
Routine Maintenance
Alternative Sample Introduction
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Coupling of ICP-MS With
Chromatographic Techniques for
Trace Element Speciation Studies
ICP-MS Applications
Comparing ICP-MS With Other Atomic
Spectroscopy Techniques
How to Select an ICP-MS: Some
Important Analytical Considerations
Glossary of Terms Used in ICP-MS
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