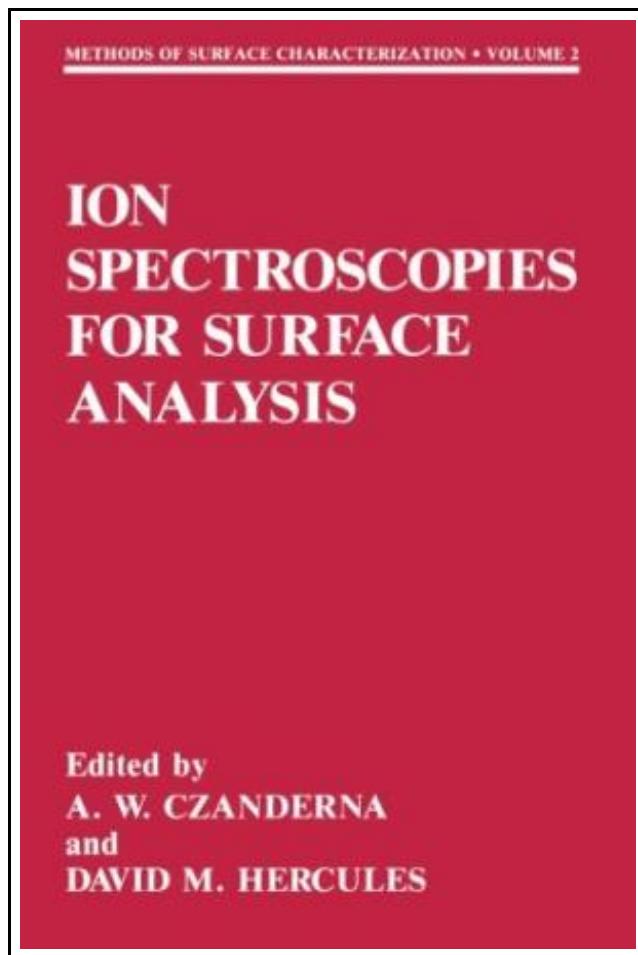


Ion Spectroscopies for Surface Analysis



Filesize: 1.28 MB

Reviews

A fresh e book with an all new viewpoint. It is really simplistic but unexpected situations in the 50 % from the book. Once you begin to read the book, it is extremely difficult to leave it before concluding. (Dawn Hane)

ION SPECTROSCOPIES FOR SURFACE ANALYSIS

[DOWNLOAD](#)

Book Condition: New. Publisher/Verlag: Springer, Berlin | Determining the elemental composition of surfaces is an essential measurement in characterizing solid surfaces. At present, many approaches may be applied for measuring the elemental and molecular composition of a surface. Each method has particular strengths and limitations that often are directly connected to the physical processes involved. Typically, atoms and molecules on the surface and in the near surface region may be excited by photons, electrons, ions, or neutrals, and the detected particles are emitted, ejected, or scattered ions or electrons. The purpose of this book is to bring together a discussion of the surface compositional analysis that depends on detecting scattered or sputtered ions, and the methods emphasized are those where instruments are commercially available for carrying out the analysis. For each topic treated, the physical principles, instrumentation, qualitative analysis, artifacts, quantitative analysis, applications, opportunities, and limitations are discussed. The first chapter provides an overview of the role of elemental composition in surface science; compositional depth profiling; stimulation by an electric field, electrons, neutrals, or photons and detection of ions; and then stimulation by ions, and detection of ions, electrons, photons, or neutrals. | 1. Overview of Ion Spectroscopies for Surface Compositional Analysis.- Glossary of Acronyms.- 1. Purposes.- 2. Introduction.- 2.1. Role of Surface Analysis in Surface Characterization.- 2.1.1. Surface Area.- 2.1.2. Real and Clean Surfaces; Solid Forms.- 2.1.3. Structure and Topography.- 2.1.4. Surface Thermodynamics, Equilibrium Shape, and Diffusion.- 2.1.5. Amount Adsorbed and Nature of Adsorbate/Solid Interactions.- 2.1.6. Surface Composition or Purity.- 2.2. Surface Atom Density and Ultrahigh Vacuum.- 2.3. Compositional Depth Profiling.- 2.3.1. Sputtering Mechanism, Yield, and Rate.- 2.3.2. Instrumentation.- 2.3.3. Data Obtained and Typical Results.- 3. Overview of Compositional Surface Analysis by Ion Spectroscopies.- 3.1. Effects of Energetic Ion Impact on Surfaces.- 3.2. Stimulation and Detection in...

[Read Ion Spectroscopies for Surface Analysis Online](#)[Download PDF Ion Spectroscopies for Surface Analysis](#)

Related eBooks



Would It Kill You to Stop Doing That?

Book Condition: New. Publisher/Verlag: Little, Brown Book Group | A Modern Guide to Manners | A laugh-out-loud guide to modern manners by acclaimed humorist, author, and Vanity Fair columnist Henry Alford. | A few years...

[Save eBook »](#)



Violet Rose and the Surprise Party

Book Condition: New. Publisher/Verlag: Nosy Crow | With activities, 3D press-out models and over 175 stickers! Plus free games and printables online! | When busy rabbit, Violet Rose, discovers that her friend Lily has a...

[Save eBook »](#)



Winter: Set 11 : Non-Fiction

Pearson Education Limited. Paperback. Book Condition: new. BRAND NEW, Winter: Set 11 : Non-Fiction, Monica Hughes, This title is part of Phonics Bug - the first synthetic phonics programme to bring together research-based teaching methods...

[Save eBook »](#)



A Letter from Dorset: Set 11: Non-Fiction

Pearson Education Limited. Paperback. Book Condition: new. BRAND NEW, A Letter from Dorset: Set 11: Non-Fiction, Emma Lynch, This title is part of Phonics Bug - the first Phonics programme to bring together research-based teaching...

[Save eBook »](#)



Cool Cars: Set 12: Non-Fiction

Pearson Education Limited. Paperback. Book Condition: new. BRAND NEW, Cool Cars: Set 12: Non-Fiction, Emma Lynch, This title is part of Phonics Bug - the first Phonics programme to bring together research-based teaching methods with...

[Save eBook »](#)