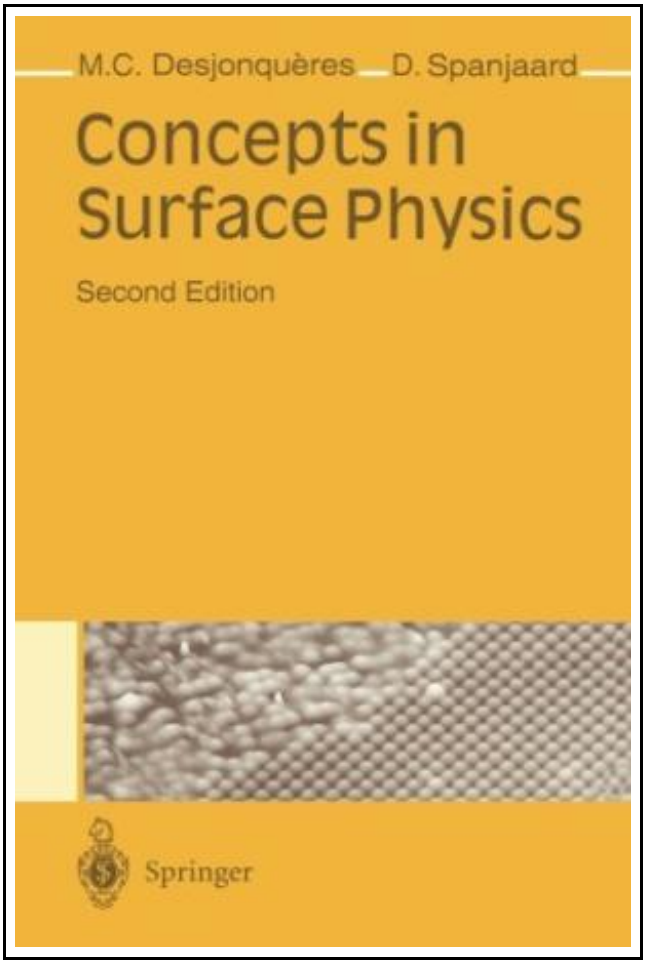
Concepts in Surface Physics



Filesize: 9.46 MB

Reviews

Complete manual! Its such a great study. It really is writter in straightforward phrases rather than hard to understand. You are going to like the way the article writer create this publication.
(Ike Fadel)

CONCEPTS IN SURFACE PHYSICS

To save **Concepts in Surface Physics** PDF, make sure you follow the hyperlink under and download the ebook or gain access to other information that are have conjunction with CONCEPTS IN SURFACE PHYSICS ebook.

Book Condition: New. Publisher/Verlag: Springer, Berlin | Concepts in Surface Physics presents a tutorial treatment of the main concepts and phenomena of the physics of crystal surfaces. Emphasis is placed on simplified calculations - and the corresponding detailed analytical derivations - that are able to throw light on the most important physical mechanisms. More rigorous techniques, which often require a large amount of computer time, are also explained. The topics treated include thermodynamic and statistical properties of clean nd adsorbate-covered surfaces, atomic structure, vibrational properties, electronic structure, and the theory of physisorptionand chemisorption. As well as including some improvements on the original book, this second edition has been supplemented with problems to encourage students to investigate the subject more thoroughly. | 1. Introduction.- 2. Thermodynamical and Statistical Properties of Clean Surfaces.- 2.1 Thermodynamics of a Surface at Equilibrium.- 2.2 Equilibrium Shape of a Crystal.- 2.3 Facetting.- 2.4 The Roughening Transition.- 2.4.1 Generalities.- 2.4.2 Macroscopic Approach: The Continuum Limit.- a) One Dimensional Case: Statistics of a Step.- b) The Two Dimensional Case: Statistics of a Surface.- 2.4.3 Microscopic Approach.- a) Equilibrium Shape of a Step Edge.- b) Equilibrium Shape of a Surface: The Roughening Transition.- 2.4.4 Consequences of the Roughening Transition for the Equilibrium Shape of Crystals and for Crystal Growth.- 2.4.5 Experimental Evidences of the Roughening Transition.- 2.4.6 Special Cases of Vicinal Surfaces.- Problems.- 3. Atomic Structure of Surfaces.- 3.1 Surface Crystallography.- 3.1.1 Two-Dimensional Lattices.- 3.1.2 Semi-Infinite Crystals. Relaxation. Reconstruction.- 3.1.3 Notations for Surface Structures.- 3.1.4 Vicinal Surfaces.- 3.1.5 Reciprocal Lattice and Brillouin Zones.- 3.2 Experimental Techniques.- 3.2.1 Observation of the Real Lattice.- a) Field-ion Microscopy (FIM).- b) Scanning Tunneling Microscopy (STM).- 3.2.2 Observation of the Reciprocal Lattice.- a) Principles of Diffraction.- b) Low Energy Electron Diffraction (LEED).- c) Atom Scattering.- d) X-ray Scattering at Grazing Incidence.- 3.2.3 Indirect Methods.-...

Other eBooks

[PDF] Homeschool Your Child for Free: More Than 1,400 Smart, Effective, and Practical Resources for Educating Your Family at Home (Paperback)

Access the web link beneath to download and read "Homeschool Your Child for Free: More Than 1,400 Smart, Effective, and Practical Resources for Educating Your Family at Home (Paperback)" PDF file.

Read eBook »

[PDF] Do Monsters Wear Undies Coloring Book: A Rhyming Children s Coloring Book (Paperback)

Access the web link beneath to download and read "Do Monsters Wear Undies Coloring Book: A Rhyming Children s Coloring Book (Paperback)" PDF file.

Read eBook »

[PDF] You Shouldn't Have to Say Goodbye: It's Hard Losing the Person You Love the Most

Access the web link beneath to download and read "You Shouldn't Have to Say Goodbye: It's Hard Losing the Person You Love the Most" PDF file.

Read eBook »

[PDF] Would It Kill You to Stop Doing That?

Access the web link beneath to download and read "Would It Kill You to Stop Doing That?" PDF file.

Read eBook »

[PDF] Cinderella: The Real Story: Red (KS2) A/5c

Access the web link beneath to download and read "Cinderella: The Real Story: Red (KS2) A/5c" PDF file.

Read eBook »

[PDF] Violet Rose and the Surprise Party

Access the web link beneath to download and read "Violet Rose and the Surprise Party" PDF file.

Read eBook »