

|                         |  |
|-------------------------|--|
| 1. Record Nr.           | UNINA9910972466203321  |
| Autore                  | Lannoo Michel  |
| Titolo                  | Atomic and Electronic Structure of Surfaces : Theoretical Foundations /<br>/ by Michel Lannoo, Paul Friedel  |
| Pubbl/distr/stampa      | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer,<br>, 1991  |
| ISBN                    | 3-662-02714-3  |
| Edizione                | [1st ed. 1991.]  |
| Descrizione fisica      | 1 online resource (XII, 256 p.)  |
| Collana                 | Springer Series in Surface Sciences, , 2198-4743 ; ; 16  |
| Disciplina              | 539  |
| Soggetti                | Atoms<br>Molecules<br>Surfaces (Technology)<br>Thin films<br>Crystallography<br>Electronics<br>Atomic, Molecular and Chemical Physics<br>Surfaces, Interfaces and Thin Film<br>Crystallography and Scattering Methods<br>Electronics and Microelectronics, Instrumentation   |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | Bibliographic Level Mode of Issuance: Monograph  |
| Nota di bibliografia    | Includes bibliographical references and index.   |
| Nota di contenuto       | 1. Introduction -- 2. General Methods for Calculating the Electronic Structure of Surfaces -- 3. Transition Metal Surfaces -- 4. Electronic States at Covalent Semiconductor Surfaces -- 5. Surfaces of Compound Semiconductors -- 6. Chemisorption on Semiconductor Surfaces -- 7. Interfaces -- 8. Surface Phonons -- Solutions to Exercises -- References.  |
| Sommario/riassunto      | Surfaces and interfaces play an increasingly important role in today's solid state devices. In this book the reader is introduced, in a didactic manner, to the essential theoretical aspects of the atomic and electronic structure of surfaces and interfaces. The book does not pretend to give a complete overview of contemporary problems and methods. Instead, the authors strive to provide simple but qualitatively useful arguments that apply to a wide variety of cases. The emphasis of |

the book is on semiconductor surfaces and interfaces but it also includes a thorough treatment of transition metals, a general discussion of phonon dispersion curves, and examples of large computational calculations. The exercises accompanying every chapter will be of great benefit to the student.

---