

1. Record Nr.	UNINA9910480484103321
Autore	Lannoo Michel
Titolo	Atomic and Electronic Structure of Surfaces [[electronic resource]] : Theoretical Foundations // by Michel Lannoo, Paul Friedel
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1991
ISBN	3-662-02714-3
Edizione	[1st ed. 1991.]
Descrizione fisica	1 online resource (XII, 256 p.)
Collana	Springer Series in Surface Sciences, , 0931-5195 ; ; 16
Disciplina	539
Soggetti	Atoms Physics Materials—Surfaces Thin films Crystallography Electronics Microelectronics Atomic, Molecular, Optical and Plasma Physics Surfaces and Interfaces, Thin Films Crystallography and Scattering Methods 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.
