1. Record Nr. UNINA9910140179403321

Autore	Levitin Valim
Titolo	Interatomic bonding in solids : fundamentals, simulation, applications / / Valim Levitin
Pubbl/distr/stampa	Weinheim an der Bergstrasse, Germany : , : Wiley-VCH, , 2014 ©2014
ISBN	3-527-67155-2 3-527-67158-7 3-527-67157-9
Descrizione fisica	1 online resource (322 p.)
Disciplina	541.224
Soggetti	Chemical bonds Density functionals - Computer simulation Materials science - Computer simulation Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title Page; Contents; Preface; 1 Introduction; 2 From Classical Bodies to Microscopic Particles; 2.1 Concepts of Quantum Physics; 2.2 Wave Motion; 2.3 Wave Function; 2.4 The Schrodinger Wave Equation; 2.5 An Electron in a Square Well: One-Dimensional Case; 2.6 Electron in a Potential Rectangular Box: k-Space; 3 Electrons in Atoms; 3.1 Atomic Units; 3.2 One-Electron Atom: Quantum Numbers; 3.3 Multi-Electron Atoms; 3.4 The Hartree Theory; 3.5 Results of the Hartree Theory; 3.6 The Hartree-Fock Approximation; 3.7 Multi-Electron Atoms in the Mendeleev Periodic Table; 3.8 Diatomic Molecules 4 The Crystal Lattice4.1 Close-Packed Structures; 4.2 Some Examples of Crystal Structures; 4.3 The Wigner-Seitz Cell; 4.4 Reciprocal Lattice; 4.5 The Brillouin Zone; 5 Homogeneous Electron Gas and Simple Metals; 5.1 Gas of Free Electrons; 5.2 Parameters of the Free-Electron Gas; 5.3 Notions Related to the Electron Gas; 5.4 Bulk Modulus; 5.5 Energy of Electrons; 5.6 Exchange Energy and Correlation Energy; 5.7 Low-Density Electron Gas: Wigner Lattice; 5.8 Near-Free Electron Approximation: Pseudopotentials; 5.9 Cohesive Energy of Simple Metals

Sommario/riassunto

The connection between a quantum behavior of the structure elements of a substance and the parameters that determine the macroscopic behavior of materials has a major influence on the properties exhibited by different solids. Although quantum theory and engineering should complement each other, this is not always the case. This book aims to demonstrate how the properties of materials can be derived and predicted proceeding from the features of their structural elements, generally electrons. In a sense, electronic structure forms the glue holding solids as whole, and it is centr

2.	Record Nr.	UNINA9910144117003321
	Autore	Gurtov Andrei
	Titolo	Host Identity Protocol (HIP) : towards the secure mobile Internet / / Andrei Gurtov
	Pubbl/distr/stampa	Chichester, U.K. : , : Wiley, , 2008 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2008]
	ISBN	1-281-84107-2 9786611841072 0-470-77289-1 0-470-77290-5
	Descrizione fisica	1 online resource (323 p.)
	Collana	Wiley series on communications networking & distributed systems Wiley series in communications networking & distributed systems
	Disciplina	004.62 005.8
	Soggetti	Wireless Internet - Security measures Host Identity Protocol (Computer network protocol)
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Foreword / Jari Arkko -- Foreword / David Hutchison -- Introduction to network security -- Architectural overview -- Base protocol -- Main extensions -- Advanced extensions -- Performance measurements -- Lightweight HIP -- Infrastructure support -- Middlebox traversal -- Name resolution -- Micromobility -- Communication privacy -- Possible HIP applications -- Application interface -- Integrating HIP with other protocols -- Installing and using HIP.
	Sommario/riassunto	"Within the set of many identifier-locator separation designs for the Internet, HIP has progressed further than anything else we have so far. It is time to see what HIP can do in larger scale in the real world. In order to make that happen, the world needs a HIP book, and now we have it." - Jari Arkko, Internet Area Director, IETF One of the challenges facing the current Internet architecture is the incorporation of mobile and multi-homed terminals (hosts), and an overall lack of protection against Denial-of-Service attacks and identity spoofing. The Host Identity Protocol (HI

3. Record Nr. UNINA9910792002803321

Autore	Roberts Siobhan
Titolo	Wind wizard [[electronic resource]] : Alan G. Davenport and the art of wind engineering / / Siobhan Roberts
Pubbl/distr/stampa	Princeton, NJ, : Princeton University Press, 2013
ISBN	1-4008-4470-3
Edizione	[Course Book]
Descrizione fisica	1 online resource (289 p.)
Disciplina	624.1/75
Soggetti	Wind-pressure Buildings - Aerodynamics Bridges - Aerodynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Contents -- I. Sowing Wind Science -- II. Tall and Taller Towers -- III. Long and Longer Bridges -- IV. Project Storm Shelter -- Acknowledgments -- Notes -- Interview Sources -- Glossary -- Bibliography -- Index
Sommario/riassunto	With Wind Wizard, Siobhan Roberts brings us the story of Alan Davenport (1932-2009), the father of modern wind engineering, who investigated how wind navigates the obstacle course of the earth's natural and built environments--and how, when not properly heeded, wind causes buildings and bridges to teeter unduly, sway with abandon, and even collapse. In 1964, Davenport received a confidential telephone call from two engineers requesting tests on a pair of towers that promised to be the tallest in the world. His resulting wind studies on New York's World Trade Center advanced the art and science of wind engineering with one pioneering innovation after another. Establishing the first dedicated "boundary layer" wind tunnel laboratory for civil engineering structures, Davenport enabled the study of the atmospheric region from the earth's surface to three thousand feet, where the air churns with turbulent eddies, the average wind speed increasing with height. The boundary layer wind tunnel mimics these windy marbled striations in order to test models of buildings and bridges that inevitably face the wind when built. Over the years,

Davenport's revolutionary lab investigated and improved the wind-worthiness of the world's greatest structures, including the Sears Tower, the John Hancock Tower, Shanghai's World Financial Center, the CN Tower, the iconic Golden Gate Bridge, the Bronx-Whitestone Bridge, the Sunshine Skyway, and the proposed crossing for the Strait of Messina, linking Sicily with mainland Italy. Chronicling Davenport's innovations by analyzing select projects, this popular-science book gives an illuminating behind-the-scenes view into the practice of wind engineering, and insight into Davenport's steadfast belief that there is neither a structure too tall nor too long, as long as it is supported by sound wind science. Some images inside the book are unavailable due to digital copyright restrictions.