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Autore	Rohrer Gregory S.
Titolo	Structure and bonding in crystalline materials // Gregory S. Rohrer [[electronic resource]]
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Descrizione fisica	1 online resource (x, 540 pages) : digital, PDF file(s)
Disciplina	548.3
Soggetti	Crystals - Structure Chemical bonds
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Half-title; Title; Copyright; Contents; Preface; Chapter 1 Introduction; Chapter 2 Basic Structural Concepts; Chapter 3 Symmetry in Crystal Structures; Chapter 4 Crystal Structures; Chapter 5 Diffraction; Chapter 6 Secondary Bonding; Chapter 7 Ionic Bonding; Chapter 8 Metallic Bonding; Chapter 9 Covalent Bonding; Chapter 10 Models for Predicting Phase Stability and Structure; Appendix 1A Crystal and univalent radii; Appendix 2A Computing distances using the metric tensor; Appendix 2B Computing unit cell volumes; Appendix 2C Computing interplanar spacings Appendix 3A The 230 space groupsAppendix 3B Selected crystal structure data; Appendix 5A Introduction to Fourier series; Appendix 5B Coefficients for atomic scattering factors; Appendix 7A Evaluation of the Madelung constant; Appendix 7B Ionic radii for halides and chalcogenides; Appendix 7C Pauling electronegativities; Appendix 9A Cohesive energies and band gap data; Appendix 9B Atomic orbitals and the electronic structure of the atom; Index

**Sommario/riassunto**

One of the motivating questions in materials research today is, how can elements be combined to produce a solid with specified properties? This book is intended to acquaint the reader with established principles of crystallography and cohesive forces that are needed to address the fundamental relationship between the composition, structure and bonding. Starting with an introduction to periodic trends, the book discusses crystal structures and the various primary and secondary bonding types, and finishes by describing a number of models for predicting phase stability and structure. Containing a large number of worked examples, exercises, and detailed descriptions of numerous crystal structures, this book is primarily intended as an advanced undergraduate or graduate level textbook for students of materials science. It will also be useful to scientists and engineers who work with solid materials.

2. <b>Record Nr.</b>	UNISA996392244103316
<b>Autore</b>	Carte Samuel <1653-1740.>
<b>Titolo</b>	A dissuasive from murmuring [[electronic resource] ] : Being a sermon on 1 Cor. X. 10. Preached by Sam. Carte, M.A. Imprimatur, May 14. 1694. Geo. Royse
<b>Pubbl/distr/stampa</b>	London, : printed for Richard Baldwin, near the Oxford-Arms in Warwick-Lane, MDCXCIV. [1694]
<b>Descrizione fisica</b>	[4], 26, [2] p
<b>Soggetti</b>	Sermons, English - 17th century
<b>Lingua di pubblicazione</b>	Inglese
<b>Formato</b>	Materiale a stampa
<b>Livello bibliografico</b>	Monografia
<b>Note generali</b>	With a final advertisement leaf. Reproduction of original in the Folger Shakespeare Library.
<b>Sommario/riassunto</b>	eebo-0055