

1. Record Nr.	UNINA9910777614503321
Autore	Girifalco L. A (Louis A.)
Titolo	Statistical mechanics of solids [[electronic resource] /] / Louis A. Girifalco
Pubbl/distr/stampa	Oxford ; ; New York, : Oxford University Press, 2000
ISBN	0-19-773265-8 1-280-52982-2 9786610529827 0-19-802811-3 1-4294-0376-4
Descrizione fisica	1 online resource (536 p.)
Collana	Monographs on the physics and chemistry of materials ; ; 58
Disciplina	530.4/1
Soggetti	Solids - Mathematical models Statistical mechanics
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 (p. 505-508) and index.
Nota di contenuto	Contents; 1 The Basics of Thermodynamics; 2 Principles of Statistical Mechanics; 3 Particle Statistics; 4 The Harmonic Crystal; 5 Anharmonic Properties and the Equation of State; 6 Free Electron Theory in Metals and Semiconductors; 7 Statistical-Kinetic Theory of Electron Transport; 8 Order-Disorder Alloys; 9 Magnetic Order; 10 Phase Equilibria; 11 Critical Exponents and the Renormalization Group; 12 Surfaces and Interfaces; 13 The Theory of Random Flight; 14 Linear Polymer Chains; 15 Vacancies and Interstitials in Monatomic Crystals; 16 Point Defects in Dilute Alloys 17 Diffusion in Simple Crystals Appendix 1 Combinatorial Problems in Statistical Mechanics; Appendix 2 The Method of Undetermined Multipliers; Appendix 3 Stirling's Approximation; Appendix 4 Sums and Integrals; Appendix 5 Fermi Integrals; Appendix 6 Kirkwood's Second Moment; Appendix 7 The Generalized Lattice Gas; Appendix 8 Dyadics and Crystal Symmetry; Additional Readings; Index
Sommario/riassunto	Suitable for use as an advanced text, this monograph presents the statistical mechanics of solids from the perspective of the material properties of the solid state.

