

1. Record Nr.	UNINA9910437628503321
Titolo	Springer handbook of surface science / / Mario Rocca, Talat Rahman, Luca Vattuone (editors)
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2020] Â©2020
ISBN	3-030-46906-9
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XXXII, 1260 p. 840 illus. in color.)
Collana	Springer Handbooks, , 2522-8692
Disciplina	530.417
Soggetti	Surfaces (Physics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Kinetics and Thermodynamics at Surfaces -- Surface Crystallography -- Electronic Structure of Surfaces -- Collective and Single Particle Excitations. - Surface Magnetism -- Lattice Dynamics -- Gas Surface Interaction. - Chemical Reactions at Surfaces -- Current topics in surface science.
Sommario/riassunto	This handbook delivers an up-to-date, comprehensive and authoritative coverage of the broad field of surface science, encompassing a range of important materials such metals, semiconductors, insulators, ultrathin films and supported nanoobjects. Over 100 experts from all branches of experiment and theory review in 39 chapters all major aspects of solid-state surfaces, from basic principles to applications, including the latest, ground-breaking research results. Beginning with the fundamental background of kinetics and thermodynamics at surfaces, the handbook leads the reader through the basics of crystallographic structures and electronic properties, to the advanced topics at the forefront of current research. These include but are not limited to novel applications in nanoelectronics, nanomechanical devices, plasmonics, carbon films, catalysis, astrochemistry and biology. The handbook is an ideal reference guide and instructional aid for a wide range of physicists, chemists, materials scientists and engineers active throughout academic and industrial research.

