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Autore	Price-Smith Andrew T
Titolo	Contagion and chaos : disease, ecology, and national security in the era of globalization / / Andrew T. Price-Smith
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Descrizione fisica	1 online resource (294 p.)
Altri autori (Persone)	Price-SmithAndrew T
Disciplina	362.196/9
Soggetti	Communicable diseases - History Communicable diseases - Political aspects Communicable diseases - Social aspects National security Security, International Diseases and history
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Sequel to: The health of nations / Andrew T. Price-Smith. c2002.
Sommario/riassunto	An analysis of infectious disease as a threat to national security that examines the destabilizing effects of the 1918 Spanish Flu pandemic, HIV/AIDS in sub-Saharan Africa, SARS, and Mad Cow Disease.

2. Record Nr.	UNINA9910780727703321
Autore	Gnecco Enrico
Titolo	Nanoscale processes on insulating surfaces [[electronic resource] /] / Enrico Gnecco, Marek Szymonski
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ISBN	1-282-75749-0 9786612757495 981-283-763-9
Descrizione fisica	1 online resource (201 p.)
Altri autori (Persone)	SzymonskiMarek
Disciplina	530.4/275
Soggetti	Scanning probe microscopy Nanoelectronics Ionic crystals Thin films - Surfaces
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Nota di contenuto	Contents; About the authors; Preface; 1. Crystal Structures of Insulating Surfaces; 1.1 Halide Surfaces; 1.1.1 Alkali halide surfaces; 1.1.2 Alkaline earth halide surfaces; 1.2 Oxide Surfaces; 1.2.1 True insulating oxide surfaces; 1.2.1.1 Aluminum oxide; 1.2.1.2 Magnesium oxide; 1.2.1.3 Silicon dioxide; 1.2.2 Mixed conducting oxide surfaces; 1.2.2.1 Titanium dioxide; 1.2.2.2 Zinc oxide; 1.2.2.3 Tin dioxide; 1.2.2.4 Cerium dioxide; 1.2.2.5 Strontium titanate; 2. Preparation Techniques of Insulating Surfaces; 2.1 Ultra High Vacuum.; 2.2 Preparation of Bulk Insulating Surfaces 2.2.1 Halide surfaces2.2.2 Oxide surfaces; 2.2.3 Nanostructuring of insulating surfaces; 2.2.3.1 Evaporation spirals on alkali halides; 2.2.3.2 Faceting of halide and oxide surfaces; 2.3 Deposition of Insulating Films, Metals and Organic Molecules; 2.3.1 Thin insulating films; 2.3.2 Metal adsorbates on insulators; 2.3.3 Organic molecules on insulators; 3. Scanning Probe Microscopy in Ultra High Vacuum; 3.1 Atomic Force Microscopy; 3.1.1 Relevant forces in AFM; 3.1.2 Contact AFM; 3.1.3 Non-contact AFM; 3.1.3.1 Tuning fork sensors; 3.1.4 Kelvin probe force microscopy

3.2 Scanning Tunneling Microscopy 3.2.1 Scanning tunneling microscopy; 3.2.2 Scanning tunneling spectroscopy; 3.3 Atomistic Modeling of SPM; 4. Scanning Probe Microscopy on Bulk Insulating Surfaces; 4.1 Halide Surfaces; 4.1.1 Alkali halide surfaces; 4.1.2 Alkaline earth halide surfaces; 4.2 Oxide Surfaces; 4.2.1 True insulating oxide surfaces; 4.2.1.1 Aluminum oxide; 4.2.1.2 Magnesium oxide; 4.2.1.3 Silicon dioxide; 4.2.2 Mixed conducting oxide surfaces; 4.2.2.1 Titanium dioxide; 4.2.2.2 Zinc oxide; 4.2.2.3 Tin dioxide; 4.2.2.4 Cerium dioxide; 4.2.2.5 Strontium titanate 4.3 Modeling AFM on Bulk Insulating Surfaces 4.3.1 Halide surfaces; 4.3.2 Oxide surfaces; 5. Scanning Probe Microscopy on Thin Insulating Films; 5.1 Halide Films on Metals; 5.1.1 Carpet-like growth.; 5.1.2 Restructuring and patterning of vicinal surfaces; 5.1.3 Fractal growth at low temperatures; 5.2 Halide Films on Semiconductors; 5.3 Heteroepitaxial Growth of Alkali Halide Films; 5.4 Oxide Films; 5.5 Modeling AFM on Thin Insulating Films; 6. Interaction of Ions, Electrons and Photons with Halide Surfaces; 6.1 Ion Bombardment of Alkali Halides; 6.2 Electron and Photon Stimulated Desorption 6.2.1 Electron stimulated desorption 6.2.2 Photon stimulated desorption; 6.2.2.1 Desorption by excitation at threshold energies; 6.2.2.2 Desorption due to band-band excitation; 7. Surface Patterning with Electrons and Photons; 7.1 Surface Topography Modification by Electronic Excitations; 7.1.1 Layer-by-layer desorption; 7.1.2 Coexcitation with visible light; 7.2 Nanoscale Pits on Alkali Halide Surfaces; 7.2.1 Diffusion equation for F-centers; 8. Surface Patterning with Ions; 8.1 Ripple Formation by Ion Bombardment; 8.1.1 Linear continuum theory for ripple formation 8.1.2 Beyond the continuum theory

Sommario/riassunto

Ionic crystals are among the simplest structures in nature. They can be easily cleaved in air and in vacuum, and the resulting surfaces are atomically flat on areas hundreds of nanometers wide. With the development of scanning probe microscopy, these surfaces have become an ideal "playground" to investigate several phenomena occurring on the nanometer scale. This book focuses on the fundamental studies of atomically resolved imaging, nanopatterning, metal deposition, molecular self-assembling and nanotribological processes occurring on ionic crystal surfaces. Here, a significant variety of st