This graduate-level textbook covers the major developments in surface sciences of recent decades, from experimental tricks and basic techniques to the latest experimental methods and theoretical understanding. It is unique in its attempt to treat the physics of surfaces, thin films and interfaces, surface chemistry, thermodynamics, statistical physics and the physics of the solid/electrolyte interface in an integral manner, rather than in separate compartments. The Physics of Surfaces and Interfaces is designed as a handbook for the researcher as well as a study-text for graduate students in physics or chemistry with special interest in the surface sciences, material science, or the nanosciences. The experienced researcher, professional or academic teacher will appreciate the opportunity to share many insights and ideas that have grown out of the author's long experience. Readers will likewise appreciate the wide range of topics treated, each supported by extensive references. Graduate students will benefit from the elementary introductions to experimental techniques and the clear presentations of the theory behind the techniques and the phenomena. Wherever possible, physical concepts are emphasized and the mathematical notation kept to a minimum; the verbal explanations are supported by 350 graphs and illustrations.

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