

Springer Series in Surface Sciences

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Photoelectron Spectroscopy

Bulk and Surface Electronic Structures, *Second Edition*

This book presents photoelectron spectroscopy as a valuable method for studying the electronic structures of various solid materials in the bulk state, on surfaces, and at buried interfaces. This second edition introduces the advanced technique of high-resolution and high-efficiency spin- and momentum-resolved photoelectron spectroscopy using a novel momentum microscope, enabling high-precision measurements down to a length scale of some tens of nanometers. The book also deals with fundamental concepts and approaches to applying this and other complementary techniques, such as inverse photoemission, photoelectron diffraction, scanning tunneling spectroscopy, as well as photon spectroscopy based on (soft) x-ray absorption and resonance inelastic (soft) x-ray scattering. This book is the ideal tool to expand readers' understanding of this marvelously versatile experimental method, as well as the electronic structures of metals and insulators.

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