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Nota di contenuto	Introduction -- Angle-Resolved Photoemission Spectroscopy -- Growth of Bi ₂ Sr ₂ Ca _{1-x} Dy _x Cu ₂ O ₈ + Single Crystals -- Nodal Electron Coupling in the Bi ₂ Sr ₂ Ca ₁ Cu ₂ O ₈ + -- High Energy Dispersion in Bi ₂ Sr ₂ Ca ₁ Cu ₂ O ₈ + -- Normal Electron Self-Energy and Pairing Self-Energy in Bi ₂ Sr ₂ CaCu ₂ O ₈ -- Superconducting Gap and Pseudogap in Bi ₂ Sr ₂ CaCu ₂ O ₈ + -- Summary.
Sommario/riassunto	This book mainly focuses on the study of the high-temperature superconductor Bi ₂ Sr ₂ CaCu ₂ O ₈ by vacuum, ultra-violet, laser-based, angle-resolved photoemission spectroscopy (ARPES). A new form of electron coupling has been identified in Bi ₂₂₁₂ , which occurs in the superconducting state. For the first time, the Bogoliubov quasiparticle dispersion with a clear band back-bending has been observed with two peaks in the momentum distribution curve in the superconducting state at a low temperature. Readers will find useful information about the technique of angle-resolved photoemission and the study of high-temperature superconductors using this technique. Dr. Wentao Zhang received his PhD from the Institute of Physics at the Chinese Academy of Sciences.