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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Scope and Overview -- Mathematical Preliminaries -- Induced Representations -- Projective Representations -- Representations of the Space Groups -- Tables -- Group Theory and Quantum Mechanics.
Sommario/riassunto	This book is devoted to the construction of space group representations, their tabulation, and illustration of their use. Representation theory of space groups has a wide range of applications in modern physics and chemistry, including studies of electron and phonon spectra, structural and magnetic phase transitions, spectroscopy, neutron scattering, and superconductivity. The book presents a clear and practical method of deducing the matrices of all irreducible representations, including double-valued, and tabulates the matrices of irreducible projective representations for all 32 crystallographic point groups. One obtains the irreducible representations of all 230 space groups by multiplying the matrices presented in these compact and convenient to use tables by easily

computed factors. A number of applications to the electronic band structure calculations are illustrated through real-life examples of different crystal structures. The book's content is accessible to both graduate and advanced undergraduate students with elementary knowledge of group theory and is useful to a wide range of experimentalists and theorists in materials and solid-state physics.