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Sommario/riassunto

This book introduces and details the key facets of Combined Analysis - an x-ray and/or neutron scattering methodology which combines structural, textural, stress, microstructural, phase, layer, or other relevant variable or property analyses in a single approach. The text starts with basic theories related to diffraction by polycrystals and some of the most common combined analysis instrumental set-ups are detailed. Also discussed are microstructures of powder diffraction profiles; quantitative phase analysis from the Rietveld analysis; residual stress analysis for isotropic and anisotropic ma