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Disciplina	530.41
Soggetti	Superconductivity Superconductors Solid state physics Materials science Physical measurements Measurement Strongly Correlated Systems, Superconductivity Solid State Physics Characterization and Evaluation of Materials Measurement Science and Instrumentation
Lingua di pubblicazione	Inglese
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Nota di contenuto	Introduction -- Uniaxial Stress Technique -- The Physics of Sr ₂ RuO ₄ Approaching a Van Hove Singularity -- Quantum Criticality and Metamagnetism of Strained Sr ₃ Ru ₂ O ₇ -- Conclusions and Outlook.
Sommario/riassunto	This book reports on the development and application of a new uniaxial pressure apparatus that is currently generating considerable interest in the field of materials physics. The author provides practical guidelines for performing related experiments, backed up by finite element simulations. Subsequently, the book reports on two uses of the device. In the first, high pressures are used to tune to a Van Hove singularity in Sr ₂ RuO ₄ , while the effects on the unconventional superconductivity and the normal state properties are investigated. In the second experiment, precise and continuous strain control is used to

probe symmetry breaking and novel phase formation in the vicinity of a quantum critical point in Sr₃Ru₂O₇. .
