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Disciplina 543.67

Soggetti Spectrum analysis

Microscopy
Atomic structure
Molecular structure

Magnetism

Magnetic materials Crystallography

Chemistry, Physical and theoretical

Materials science

Spectroscopy and Microscopy

Atomic/Molecular Structure and Spectra

Magnetism, Magnetic Materials

Crystallography and Scattering Methods

Physical Chemistry

Characterization and Evaluation of Materials

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Sommario/riassunto This book shows how the fundamentals of electron paramagnetic

resonance (EPR) spectroscopy are practically implemented and illustrates the diversity of current applications. The technique is used at various levels, and applications are presented in order of increasing difficulty, with reference to theoretically obtained results. This book

features a diverse array of application examples, from fields such as ionizing radiation dosimetry, neurodegenerative diseases, structural transitions in proteins, and the origins of terrestrial life. The final chapter of this book highlights the principles and applications of the technique of ferromagnetic resonance spectroscopy, followed by a brief introduction to advanced EPR techniques such as electron spin echo envelope modulation (ESEEM), hyperfine sub-level correlation (HYSCORE), pulsed electron-electron double resonance (PELDOR), and continuous wave electron nuclear double resonance (ENDOR) experiments.