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Introduction; 2 Insulating Magnetic Materials; 3 Metallic Magnetic Materials; References; Permanent Magnetism; 1 Introduction; 2 Macroscopic Description of Permanent Magnetism  
3 Physics of Permanent Magnetism4 Permanent Magnet Materials; 5 Conclusions; References; Nuclear Magnetic Resonance in Solids at Very High Magnetic Fields; 1 Introduction; 2 A Brief Introduction to NMR; 3 Facilities and Techniques for High Field NMR Research; 4 Science; 5 Conclusions; References; Biological Systems in High Magnetic Fields; 1 Introduction; 2 Single Biological Components; 3 Orientation and Crystallization of Biomacromolecules; 4 Single Subcellular Activities; 5 Complex Systems; 6 Conclusions; References; Plasmas and Megagauss Fields; 1 Introduction; 2 Basic Formulations  
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#### Sommario/riassunto

This three-volume book provides a comprehensive review of experiments in very strong magnetic fields that can only be generated with very special magnets. The first volume is entirely devoted to the technology of laboratory magnets: permanent, superconducting, high-power water-cooled and hybrid; pulsed magnets, both nondestructive and destructive (megagauss fields). Volumes 2 and 3 contain reviews of the different areas of research where strong magnetic fields are an essential research tool. These volumes deal primarily with solid-state physics; other research areas covered are biological syst

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