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| Autore | Khenata Rabah |
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| Sommario/riassunto | As we all know, electrons carry both charge and spin. The processing of information in conventional electronic devices is based only on the charge of electrons. Spin electronics, or spintronics, uses the spin of electrons, as well as their charge, to process information. Metals, semiconductors, and insulators are the basic materials that constitute the components of electronic devices, and these types of materials have been transforming all aspects of society for over a century. In contrast, magnetic metals, half-metals (including zero-gap half-metals), magnetic semiconductors (including spin-gapless semiconductors), dilute magnetic semiconductors, and magnetic insulators are the materials that will form the basis for spintronic devices. This book aims to collect a range of papers on novel materials that have intriguing physical properties and numerous potential practical applications in spintronics. |