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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction to history of memory devices and the present memory devices -- Introduction of resistive switches memory devices with nanoparticles -- Structure, fabrication and operation of devices with a triple-layer structure sandwiched between two electrode -- Structure, fabrication and operation of devices with a single layer structure sandwiched between two electrode -- Resistive switching devices exploiting the charge transfer between metal electrode and metal nanoparticles -- Mechanisms for resistive switches -- Application of the resistive switching devices with nanoparticles.
Sommario/riassunto	This brief describes how non-volatile change of the resistance , due to the application of electric voltage allows for fabrication of novel digital memory devices. The author explains the physics of the devices and provides a concrete description of the materials involved as well as the fundamental properties of the technology. He details how charge trapping, charge transfer and conductive filament formation effect resistive switching memory devices.

