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Titolo	Charge-Trapping Non-Volatile Memories : Volume 1 – Basic and Advanced Devices / / edited by Panagiotis Dimitrakis
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Descrizione fisica	1 online resource (219 p.)
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Soggetti	Nanotechnology Electronic circuits Electronics Microelectronics Computer storage devices Electronic Circuits and Devices Electronics and Microelectronics, Instrumentation Memory Structures
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Preface -- Introduction to NVM devices -- A synopsis on the state of the art of NAND memories -- Charge-trap memories with ion beam modified ONO stacks -- 3D NAND Flash Architectures -- Quantum dot Nonvolatile Memories -- Two-Terminal Organic Memories with Metal or Semiconductor Nanoparticles.
Sommario/riassunto	This book describes the basic technologies and operation principles of charge-trapping non-volatile memories. The authors explain the device physics of each device architecture and provide a concrete description of the materials involved as well as the fundamental properties of the technology. Modern material properties used as charge-trapping layers, for new applications are introduced.