1. Record Nr. UNINA9910164981803321

Titolo	Charge-Trapping Non-Volatile Memories : Volume 2--Emerging Materials and Structures / / edited by Panagiotis Dimitrakis
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-48705-1
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (V, 211 p. 170 illus., 117 illus. in color.)
Disciplina	620.115
Soggetti	Nanotechnology Electronic circuits Electronics Microelectronics Computer storage devices Engineering—Materials Electronic Circuits and Devices Electronics and Microelectronics, Instrumentation Memory Structures Materials Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Materials and Device Reliability in SONOS Memories -- Charge-Trap-Non-Volatile Memory and Focus on Flexible Flash Memory Devices -- Hybrid Memories Based on Redox Molecules -- Organic Floating-Gate Memory Structures -- Nanoparticles Based Flash-like Non Volatile Memories: Cluster Beam Synthesis of Metallic Nanoparticles and Challenges for the Overlying Control Oxide Layer.
Sommario/riassunto	This book describes the technology of charge-trapping non-volatile memories and their uses. The authors explain the device physics of each device architecture and provide a concrete description of the materials involved and the fundamental properties of the technology. Modern material properties, used as charge-trapping layers, for new applications are introduced. Provides a comprehensive overview of the technology for charge-trapping non-volatile memories; Details new

architectures and current modeling concepts for non-volatile memory devices; Focuses on conduction through multi-layer gate dielectrics stacks.