1. Record Nr. UNINA990005596040403321

Autore	Norberg-Schulz, Christian <1926- >
Titolo	Kilian Ignaz Dientzenhofer e il barocco boemo / Christian Norberg-Schulz
Pubbl/distr/stampa	Roma : Officina Edizioni, 1968
Descrizione fisica	213 p.,1 c. di tav. ripieg. : ill. ; 24 cm
Collana	Officina ; 4
Disciplina	720.9437
Locazione	FLFBC FARBC
Collocazione	720.943 NOR 1 FONDO ROSSI 156
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia

2.

Record Nr.	UNINA9910819991903321
Autore	Lacaze Pierre-Camille
Titolo	Non-volatile memories / / Pierre-Camille Lacaze, Jean-Christophe Lacroix
Pubbl/distr/stampa	Hoboken, New Jersey : , : ISTE Ltd/John Wiley and Sons Inc, , 2014
ISBN	1-118-79012-X 1-118-78998-9 1-118-79028-6
Descrizione fisica	1 online resource (305 p.)
Collana	Electronics engineering series
Disciplina	621.39732
Soggetti	Flash memories (Computers) Computer storage devices
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title Page; Copyright; Contents; Acknowledgments; Preface; PART 1: Information Storage and the State of the Art of Electronic Memories; 1: General Issues Related to Data Storage and Analysis Classification of Memories and Related Perspectives; 1.1. Issues arising from the flow of digital information; 1.2. Current electronic memories and their classification; 1.3. Memories of the future; 2: State of the Art of DRAM, SRAM, Flash, HDD and MRAM Electronic Memories; 2.1. DRAM volatile memories; 2.1.1. The operating principle of a MOSFET (metal oxide semiconductor field effect transistor) 2.1.2. Operating characteristics of DRAM memories 2.2. SRAM memories; 2.3. Non-volatile memories related to CMOS technology; 2.3.1. Operational characteristics of a floating gate MOSFET; 2.3.1.1. How to charge and discharge the floating gate?; 2.3.1.2. Physical problems related to the storage of electrical charges and their impact on the operation of a floating gate memory; 2.3.1.2.1. Charge retention; 2.3.1.2.2. Problems related to writing and electron injection; 2.3.1.3. Multilevel cells 2.3.1.4. The quality of dielectrics: one of the reasons behind the limitation of floating gate memory performances 2.3.1.5. The "Achille's heel" of floating gate memories; 2.3.2. Flash memories; 2.3.2.1. NOR and NAND Flash memories; 2.3.2.2. General organization of NAND

Flash memories; 2.3.2.3. Perspectives for Flash memories; 2.4. Non-volatile magnetic memories (hard disk drives - HDDs and MRAMs); 2.4.1. The discovery of giant magneto resistance at the origin of the spread of hard disk drives; 2.4.1.1. GMR characteristics; 2.4.2. Spin valves; 2.4.3. Magnetic tunnel junctions
2.4.4. Operational characteristics of a hard disk drive (HDD)2.4.5. Characteristics of a magnetic random access memory (MRAM); 2.5. Conclusion; 3: Evolution of SSD Toward FeRAM, FeFET, CTM and STT-RAM Memories; 3.1. Evolution of DRAMs toward ferroelectric FeRAMs; 3.1.1. Characteristics of a ferroelectric material; 3.1.2. Principle of an FeRAM memory; 3.1.3. Characteristics of an FeFET memory; 3.1.3.1. Retention characteristics; 3.1.3.2. Ferroelectric materials other than oxides?; 3.2. The evolution of Flash memories towards charge trap memories (CTM)
3.3. The evolution of magnetic memories (MRAM) toward spin torque transfer memories (STT-RAM)3.3.1. Nanomagnetism and experimental implications; 3.3.2. Characteristics of spin torque transfer; 3.3.3. Recent evolution with use of perpendicular magneticanisotropic materials; 3.4. Conclusions; PART 2: The Emergence of New Concepts: The Inorganic NEMS, PCRAM, ReRAM and Organic Memories; 4: Volatile and Non-volatile Memories Based on NEMS; 4.1. Nanoelectromechanical switches with two electrodes; 4.1.1. NEMS with cantilevers; 4.1.1.1. Operation and memory effect of an NEMS with a cantilever
4.1.1.2. Description of the elaboration technique

Sommario/riassunto

Written for scientists, researchers, and engineers, Non-volatile Memories describes the recent research and implementations in relation to the design of a new generation of non-volatile electronic memories. The objective is to replace existing memories (DRAM, SRAM, EEPROM, Flash, etc.) with a universal memory model likely to reach better performances than the current types of memory: extremely high commutation speeds, high implantation densities and retention time of information of about ten years.