

1. Record Nr.	UNINA9910819030303321
Titolo	Data storage at the nanoscale : advances and applications // edited by Gan Fuxi, Wang Yang
Pubbl/distr/stampa	Boca Raton, Florida : , : CRC Press : , : Taylor & Francis Group, , [2015] ©2015
ISBN	0-429-06944-8 981-4613-20-7
Edizione	[1st ed.]
Descrizione fisica	1 online resource (730 p.)
Disciplina	669.1092369
Soggetti	Computer storage devices Nanotechnology Databases
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 at the end of each chapters.
Nota di contenuto	Front Cover; Contents; Preface; Chapter 1: Overview of Information Data Storage: An Introduction; Chapter 2: Super-Resolution Optical Data Storage Using Binary Optics; Chapter 3: Focal Spot Engineering for Bit-by-Bit Recording; Chapter 4: Plasmonic Nanofocusing and Data Storage; Chapter 5: Nano-Optical Data Storage with Nonlinear Super-Resolution Thin Films; Chapter 6: Mastering Technology for High-Density Optical Disc; Chapter 7: Laser-Induced Phase Transition and Its Application in Nano-Optical Storage; Chapter 8: SPIN-Based Optical Data Storage; Chapter 9: Magnetic Random Access Memory Chapter 10: RRAM Device and CircuitChapter 11: Phase-Change Random Access Memory; Chapter 12: Nano-DRAM Technology for Data Storage Application; Chapter 13: Ferroelectric Memory; Chapter 14: Nanomagnetic and Hybrid Information Storage; Back Cover
Sommario/riassunto	In the big data era, data storage is one of the cores of the information chain from production to processing, sharing, and application. To promote and develop information technology, performance of data storage devices and systems should be increased. The recording density of memories has largely increased in recent years because of the rapid development of nanotechnology. A minimum feature size of

optical, magnetic, and electrical memories is already at the nanometer scale. This book compiles the cutting-edge research progresses of nanometer-scale data storage by several famous Chinese scient
