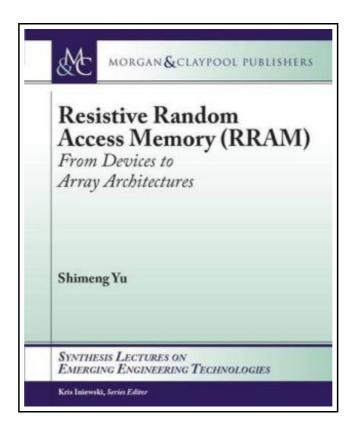
Resistive Random Access Memory (RRAM) (Paperback)



Filesize: 3.71 MB

Reviews

Great eBook and useful one. it was actually writtern really completely and useful. You are going to like the way the article writer publish this publication.

(Prof. Ernestine Emard)

RESISTIVE RANDOM ACCESS MEMORY (RRAM) (PAPERBACK)



Morgan Claypool Publishers, United States, 2016. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.RRAM technology has made significant progress in the past decade as a competitive candidate for the next generation non-volatile memory (NVM). This lecture is a comprehensive tutorial of metal oxide-based RRAM technology from device fabrication to array architecture design. State-of-the-art RRAM device performances, characterization, and modeling techniques are summarized, and the design considerations of the RRAM integration to large-scale array with peripheral circuits are discussed. Chapter 2 introduces the RRAM device fabrication techniques and methods to eliminate the forming process, and will show its scalability down to sub-10 nm regime. Then the device performances such as programming speed, variability control, and multi-level operation are presented, and finally the reliability issues such as cycling endurance and data retention are discussed. Chapter 3 discusses the RRAM physical mechanism, and the materials characterization techniques to observe the conductive filaments and the electrical characterization techniques to study the electronic conduction processes. It also presents the numerical device modeling techniques for simulating the evolution of the conductive filaments as well as the compact device modeling techniques for circuit-level design. Chapter 4 discusses the two common RRAM array architectures for large-scale integration: one-transistor-one-resistor (1T1R) and cross-point architecture with selector. The write/read schemes are presented and the peripheral circuitry design considerations are discussed. Finally, a 3D integration approach is introduced for building ultra-high density RRAM array. Chapter 5 is a brief summary and will give an outlook for RRAM s potential novel applications beyond the NVM applications.

- Read Resistive Random Access Memory (RRAM) (Paperback) Online
- Download PDF Resistive Random Access Memory (RRAM) (Paperback)

Related eBooks



History of the Town of Sutton Massachusetts from 1704 to 1876 (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. annotated edition. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****. This version of the History of the Town of Sutton Massachusetts...

Read Book »



Valley Forge: The History and Legacy of the Most Famous Military Camp of the Revolutionary War (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *******Includes pictures *Includes accounts of Valley Forge written by Washington and other generals...

Read Book »



Crochet: Learn How to Make Money with Crochet and Create 10 Most Popular Crochet Patterns for Sale: (Learn to Read Crochet Patterns, Charts, and Graphs, Beginner's Crochet Guide with Pictures) (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****. Getting Your FREE Bonus Download this book, read it to the end and...

Read Book »



Learn em Good: Improve Your Child s Math Skills: Simple and Effective Ways to Become Your Child s Free Tutor Without Opening a Textbook (Paperback)

Createspace, United States, 2010. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****. From a certified teacher and founder of an online tutoring website-a simple and...

Read Book »



Fart Book African Bean Fart Adventures in the Jungle: Short Stories with Moral (Paperback)

Createspace, United States, 2013. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Black White Illustration Version! BONUS - Includes FREE Dog Fart Audio Book for...

Read Book »