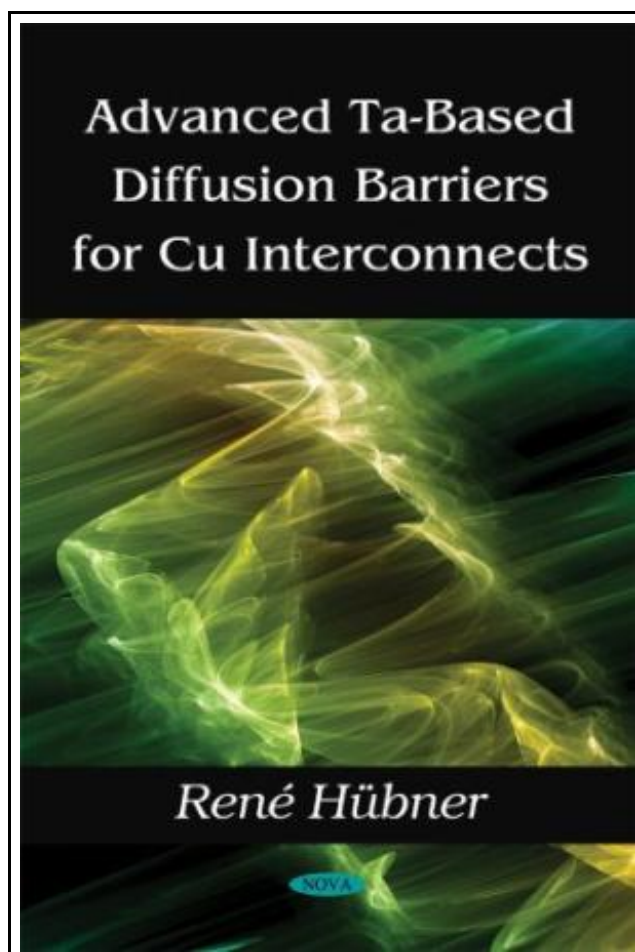


Advanced Ta-Based Diffusion Barriers for Cu Interconnects



Filesize: 5.3 MB

Reviews

*If you need to adding benefit, a must buy book. it absolutely was writtern extremely perfectly and beneficial. You are going to like the way the blogger compose this publication.
(Orlando Abernathy)*

ADVANCED TA-BASED DIFFUSION BARRIERS FOR CU INTERCONNECTS



To save **Advanced Ta-Based Diffusion Barriers for Cu Interconnects** PDF, make sure you follow the hyperlink under and download the ebook or gain access to other information which might be relevant to **ADVANCED TA-BASED DIFFUSION BARRIERS FOR CU INTERCONNECTS** ebook.

Nova Science Publishers Inc. Paperback. Book Condition: new. BRAND NEW, Advanced Ta-Based Diffusion Barriers for Cu Interconnects, Rene Hubner, During the last few years, copper has become the standard metallisation material for on-chip interconnects in high-performance microprocessors. Compared to the previously used aluminium, copper shows not only a lower resistivity, but also significantly improved electromigration resistance. Copper ions, however, are very mobile in silicon and many dielectric materials under electrical and thermal bias. Thus, barrier layers are needed to prevent Cu diffusion into the insulating layers surrounding the metallic interconnects. Since Ta-based compounds are characterized by a high thermal stability, pure Ta films or layer stacks consisting of Ta and TaN are used for such barriers. The continuous scaling down of the interconnect dimensions and, therefore, the essential decrease in the barrier layer thickness coupled with the replacement of silicon oxide by advanced low-k dielectrics demand further improvements of the diffusion barrier performance. It is the aim of this book to carry out microstructure and functional property investigations for advanced, high-performance Tabased diffusion barriers (Ta-TaN layer stacks and Ta-Si-N single layers) before and after annealing to compare their thermal stabilities and to probe the corresponding failure mechanisms. For the Ta-TaN barriers, these studies are undertaken for a range of layer sequences, while for the Ta-Si-N barriers a variety of films with different chemical compositions are analysed.



[Read Advanced Ta-Based Diffusion Barriers for Cu Interconnects Online](#)



[Download PDF Advanced Ta-Based Diffusion Barriers for Cu Interconnects](#)



[Download ePub Advanced Ta-Based Diffusion Barriers for Cu Interconnects](#)

Other eBooks



[PDF] THE Key to My Children Series: Evan s Eyebrows Say Yes (Paperback)

Access the hyperlink beneath to get "THE Key to My Children Series: Evan s Eyebrows Say Yes (Paperback)" file.

[Save Document »](#)



[PDF] EU Law Directions (Paperback)

Access the hyperlink beneath to get "EU Law Directions (Paperback)" file.

[Save Document »](#)



[PDF] The Preschool Inclusion Toolbox: How to Build and Lead a High-Quality Program (Paperback)

Access the hyperlink beneath to get "The Preschool Inclusion Toolbox: How to Build and Lead a High-Quality Program (Paperback)" file.

[Save Document »](#)



[PDF] Peter Rabbit: Treehouse Rescue - Read it Yourself with Ladybird: Level 2

Access the hyperlink beneath to get "Peter Rabbit: Treehouse Rescue - Read it Yourself with Ladybird: Level 2" file.

[Save Document »](#)



[PDF] Peppa Pig: School Bus Trip - Read it Yourself with Ladybird

Access the hyperlink beneath to get "Peppa Pig: School Bus Trip - Read it Yourself with Ladybird" file.

[Save Document »](#)



[PDF] Most cordial hand household cloth (comes with original large papier-mache and DVD high-definition disc) (Beginners Korea(Chinese Edition)

Access the hyperlink beneath to get "Most cordial hand household cloth (comes with original large papier-mache and DVD high-definition disc) (Beginners Korea(Chinese Edition)" file.

[Save Document »](#)

**[PDF] Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 6: Save Pudding Wood (Hardback)**

Follow the web link under to download and read "Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 6: Save Pudding Wood (Hardback)" file.

[Read ePub »](#)

**[PDF] Dom's Dragon - Read it Yourself with Ladybird: Level 2**

Follow the web link under to download and read "Dom's Dragon - Read it Yourself with Ladybird: Level 2" file.

[Read ePub »](#)

**[PDF] Art appreciation (travel services and hotel management professional services and management expertise secondary vocational education teaching materials supporting national planning book)(Chinese Edition)**

Follow the web link under to download and read "Art appreciation (travel services and hotel management professional services and management expertise secondary vocational education teaching materials supporting national planning book)(Chinese Edition)" file.

[Read ePub »](#)

**[PDF] Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 3: The Backpack (Hardback)**

Follow the web link under to download and read "Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 3: The Backpack (Hardback)" file.

[Read ePub »](#)

**[PDF] Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 5: Craig Saves the Day (Hardback)**

Follow the web link under to download and read "Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 5: Craig Saves the Day (Hardback)" file.

[Read ePub »](#)

**[PDF] Coping with Chloe**

Follow the web link under to download and read "Coping with Chloe" file.

[Read ePub »](#)