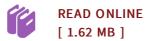




Neutron Detection Utilizing Gadolinium Doped Hafnium Oxide Films

By Bryan D. Blasy

Biblioscholar Nov 2012, 2012. Taschenbuch. Book Condition: Neu. 246x189x4 mm. This item is printed on demand - Print on Demand Neuware - Gadolinium (Gd) doped hafnium oxide (HfO2) was deposited onto a silicon substrate using pulsed laser deposition. Synchrotron radiation was used to perform Gd L3-edge extended X-ray absorption fine structure (EXAFS) measurements on 3%, 10%, and 15% doped HfO2 samples. The interatomic distances determined from Fourier transformation and fitting the data show Gd occupying the hafnium site in the HfO2 lattice, there was no clustering of Gd atoms, and the Gd ion retains monoclinic local symmetery for all levels of doping. Current as a function of voltage experiments identified the films as having poor diode characteristics with high leakage current in the forward bias region. However, a proper bias (0.5 V) for the purpose of neutron detection was identified and applied across the diodes. Using a high, non-varying neutron flux in a nuclear reactor, Gd doped HfO2 was able to be used in a detection system and displayed the ability to detect neutrons. 60 pp. Englisch.



Reviews

This ebook is definitely not simple to begin on reading but really enjoyable to read through. This really is for all who statte that there had not been a worth reading. You may like how the author publish this ebook.

-- Demetrius Buckridge

This book may be really worth a read through, and a lot better than other. It is really basic but excitement inside the 50 % in the pdf. I realized this pdf from my dad and i encouraged this publication to learn.

-- Curtis Bartell

Relevant Books



Johnny Goes to First Grade: Bedtime Stories Book for Children's Age 3-10. (Good Night Bedtime Children's Story Book Collection)

Createspace, United States, 2013. Paperback. Book Condition: New. Malgorzata Gudziuk (illustrator). Large Print. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****. Do you want to ease tension preschoolers have before going to school for the first...



Ohio Court Rules 2012, Government of Bench Bar

Createspace, United States, 2011. Paperback. Book Condition: New. 246 x 189 mm. Language: English. Brand New Book ***** Print on Demand *****. Superseded by 2013 Edition. This title is available, but should be relied upon solely for purposes of historical reference or...



Ohio Court Rules 2012, Practice Procedure

Createspace, United States, 2011. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****. Superseded by 2013 Edition. This title is available, but should be relied upon solely for purposes of historical reference or...



Federal Court Rules: 2012

Createspace, United States, 2012. Paperback. Book Condition: New. 244 x 188 mm. Language: English. Brand New Book ***** Print on Demand *****. Superseded by 2013 Edition. This title is available, but should be relied upon solely for purposes of historical reference or...



Read Write Inc. Phonics: Green Set 1 Non-Fiction 3 Let s Go!

Oxford University Press, United Kingdom, 2016. Paperback. Book Condition: New. 215 x 88 mm. Language: N/A. Brand New Book. These decodable non-fiction books provide structured practice for children learning to read. Each set of books is carefully levelled to match childrens growing...



Read Write Inc. Phonics: Pink Set 3 Non-Fiction 4 Light and Shadow

Oxford University Press, United Kingdom, 2016. Paperback. Book Condition: New. 153 x 88 mm. Language: N/A. Brand New Book. These decodable non-fiction books provide structured practice for children learning to read. Each set of books is carefully levelled to match childrens growing...