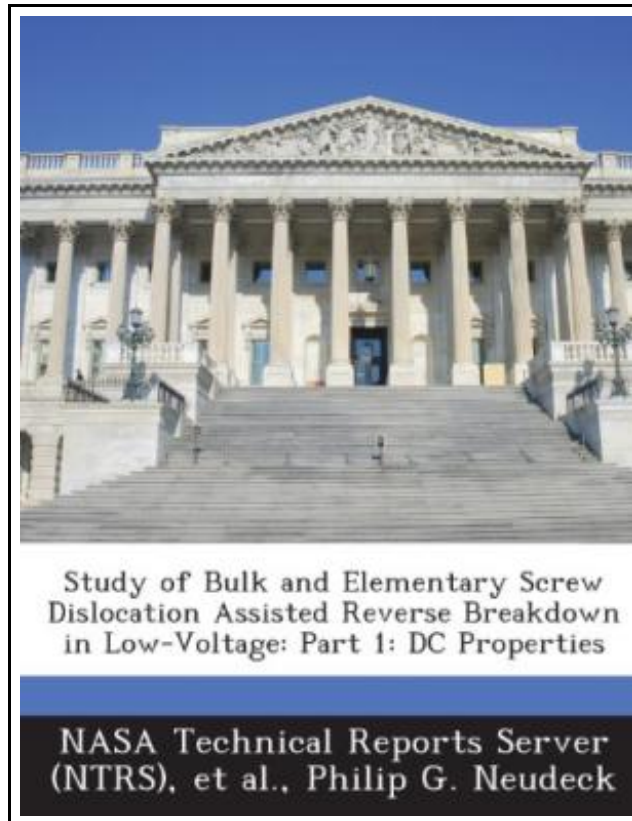


Study of Bulk and Elementary Screw Dislocation Assisted Reverse Breakdown in Low-Voltage: Part 1: DC Properties



Filesize: 8.08 MB

Reviews

Absolutely one of the better ebook I have got actually read. Indeed, it is actually engage in, still an amazing and interesting literature. I realized this book from my i and dad advised this ebook to learn.
(Flo Welch)

STUDY OF BULK AND ELEMENTARY SCREW DISLOCATION ASSISTED REVERSE BREAKDOWN IN LOW-VOLTAGE: PART 1: DC PROPERTIES



BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 28 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. Given the high density (approx. $10(\exp 4)\text{sq cm}$) of elementary screw dislocations (Burgers vector $1c$ with no hollow core) in commercial SiC wafers and epilayers, all appreciable current (greater than 1 A) SiC power devices will likely contain elementary screw dislocations for the foreseeable future. It is therefore important to ascertain the electrical impact of these defects, particularly in high-field vertical power device topologies where SiC is expected to enable large performance improvements in solid-state high-power systems. This paper compares the DC-measured reverse-breakdown characteristics of low-voltage (less than 250 V) small-area (less than $5 \times 10(\exp -4)\text{sq cm}$) 4H-SiC p(n) diodes with and without elementary screw dislocations. Compared to screw dislocation-free devices, diodes containing elementary screw dislocations exhibited higher pre-breakdown reverse leakage currents, softer reverse breakdown I-V knees, and highly localized microplasmic breakdown current filaments. The observed localized 4H-SiC breakdown parallels microplasmic breakdowns observed in silicon and other semiconductors, in which space-charge effects limit current conduction through the local microplasma as reverse bias is increased. This item ships from La Vergne, TN. Paperback.



[Read Study of Bulk and Elementary Screw Dislocation Assisted Reverse Breakdown in Low-Voltage: Part 1: DC Properties Online](#)



[Download PDF Study of Bulk and Elementary Screw Dislocation Assisted Reverse Breakdown in Low-Voltage: Part 1: DC Properties](#)

Other eBooks



Bully, the Bullied, and the Not-So Innocent Bystander: From Preschool to High School and Beyond: Breaking the Cycle of Violence and Creating More Deeply Caring Communities

HarperCollins Publishers Inc, United States, 2016. Paperback. Book Condition: New. Reprint. 203 x 135 mm. Language: English . Brand New Book. An international bestseller, Barbara Coloroso s groundbreaking and trusted guide on bullying-including cyberbullying-arms parents...

[Read Book »](#)



TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (3-5 years) Intermediate (3)(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date :2005-09-01 Publisher: Chinese children before making Reading: All books are the...

[Read Book »](#)



TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (2-4 years old) in small classes (3)(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date :2005-09-01 Publisher: Chinese children before making Reading: All books are the...

[Read Book »](#)



Words and Rhymes for Kids: A Fun Teaching Tool for High Frequency Words and Word Families

AUTHORHOUSE, United States, 2009. Paperback. Book Condition: New. 279 x 211 mm. Language: English . Brand New Book ***** Print on Demand *****.This book is designed to make learning fun for children in kindergarten through...

[Read Book »](#)



The World is the Home of Love and Death

Metropolitan Books. Hardcover. Book Condition: New. 0805055134 Never Read-12+ year old Hardcover book with dust jacket-may have light shelf or handling wear-has a price sticker or price written inside front or back cover-publishers mark-Good Copy-...

[Read Book »](#)