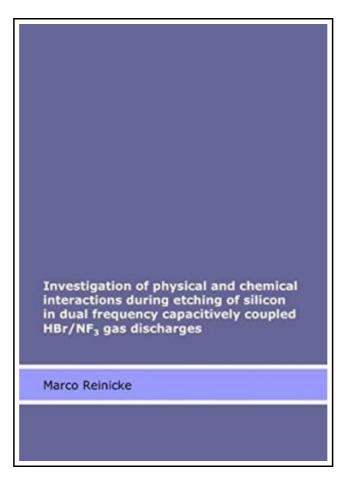
# Investigation of physical and chemical interactions during etching of silicon in dual frequency capacitively coupled HBr/NF3 gas discharges



Filesize: 6 MB

### Reviews

This publication is definitely not simple to begin on studying but quite fun to see. It really is full of knowledge and wisdom I am just effortlessly can get a satisfaction of studying a created pdf. (Alfreda Bradtke)

## INVESTIGATION OF PHYSICAL AND CHEMICAL INTERACTIONS DURING ETCHING OF SILICON IN DUAL FREQUENCY CAPACITIVELY COUPLED HBR/NF3 GAS DISCHARGES



Books On Demand Nov 2009, 2009. Taschenbuch. Book Condition: Neu. 213x151x20 mm. Neuware - High aspect ratio silicon etching used for DRAM manufacturing still remains as one of the biggest challenges in semiconductor fabrication, requiring well understood and characterized process fundamentals. In this study, physical and chemical interactions during etching silicon in capacitively coupled plasma discharges were investigated in detail for different HBr/NF3 mixed chemistries for single frequency as well as dual frequency operation and medium discharge pressures inside an industrial MERIE CCP reactor typically used for DRAM fabrication. Utilization of the dual frequency concept for separate control of ion energy and ion flux, as well as the impact on discharge properties and finally on etching at relevant substrate surfaces were studied systematically. The complex nature of multi frequency rf sheaths was both analyzed experimentally by applying mass resolved ion energy analysis, and from simulation of ion energy distributions by using a Hybrid Plasma Sheath Model. Discharge composition and etch processes were investigated by employing standard mass spectrometry, Appearance Potential Mass Spectrometry, Quantum Cascade Laser Absorption Spectroscopy, rf probe measurements, gravimetry and ellipsometry. An etch model is developed to explain limitations of silicon etching in HBr/NF3 discharges to achieve highly aniostropic etching. 284 pp. Englisch.

- Read Investigation of physical and chemical interactions during etching of silicon in dual frequency capacitively coupled HBr/NF3 gas discharges Online
- Download PDF Investigation of physical and chemical interactions during etching of silicon in dual frequency capacitively coupled HBr/NF3 gas discharges

#### Other eBooks



#### **Psychologisches Testverfahren**

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG,...

Read Book »



#### Programming in D

Ali Cehreli Dez 2015, 2015. Buch. Book Condition: Neu. 264x182x53 mm. This item is printed on demand - Print on Demand Neuware - The main aim of this book is to teach D to readers...

Read Book »



TJ new concept of the Preschool Quality Education Engineering: new happy learning young children (3-5 years old) daily learning book Intermediate (2) (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 (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 »



Children's Handwriting Book of Alphabets and Numbers: Over 4,000 Tracing Units for the Beginning Writer

Createspace, United States, 2015. Paperback. Book Condition: New. 254 x 203 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.The Children s Handwriting Book of Alphabets and Numbers provides extensive focus on...

Read Book »