

1. Record Nr.	UNISA996386958903316
Autore	Saye and Sele William Fiennes, Viscount, <1582-1662.>
Titolo	Folly and madnesse made manifest, or, Some things written to shew how contrary to the word of God and practise of the saints in the Old and New Testament the doctrines and practises of the Quakers ... are [[electronic resource]] : a rayling and reviling answer made thereunto, full of falsehood and vaine shifts and devices to maintaine their errors : this discovered and made manifest
Pubbl/distr/stampa	[Oxford, : By H. Hall], 1659
Descrizione fisica	[2], 140 p
Soggetti	Society of Friends
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Attributed to Viscount Saye and Sele, William Fiennes. Cf. NUC pre-1956. Place of publication and printer from Wing. Reproduction of original in Union Theological Seminary Library, New York.
Sommario/riassunto	eebo-0160

2. Record Nr.	UNINA9911019664003321
Titolo	Ferroelectric dielectrics integrated on silicon // edited by Emmanuel Defay
Pubbl/distr/stampa	London, : ISTE Ltd. Hoboken, N.J., : John Wiley, 2011
ISBN	9781118602751 1118602757 9781118602768 1118602765 9781118602805 1118602803
Edizione	[1st edition]
Descrizione fisica	1 online resource (464 p.)
Collana	ISTE
Altri autori (Persone)	DefayEmmanuel
Disciplina	621.3815/2
Soggetti	Ferroelectric thin films Silicon - Electric properties Electric batteries - Corrosion
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Adapted and updated from: Dielectriques ferroelectriques integres sur silicium, published in France by Hermes Science/Lavoisier, 2011.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title Page; Copyright Page; Table of Contents; Preface; Chapter 1. The Thermodynamic Approach; 1.1. Background; 1.2. The functions of state; 1.3. Linear equations, piezoelectricity; 1.4. Nonlinear equations, electrostriction; 1.5. Thermodynamic modeling of the ferroelectric-paraelectricphase transition; 1.5.1. Assumption on the elastic Gibbs energy; 1.5.2. Second-order transition; 1.5.3. Effect of stress; 1.5.4. First-order transition; 1.6. Conclusion; 1.7. Bibliography; Chapter 2. Stress Effect on Thin Films; 2.1. Introduction; 2.2. Modeling the system under consideration 2.3. Temperature-misfit strain phase diagrams for monodomain films2.3.1. Phase diagram construction from the Landau-Ginzburg-Devonshire theory; 2.3.2. Calculations limitations; 2.4. Domain stability map; 2.4.1. Presentation and description of the framework of study; 2.4.2. Main contributions to the total energy of a film; 2.4.3. Influence

of thickness; 2.4.4. Macroscopic elastic energy for each type of tetragonal domain; 2.4.5. Indirect interaction energy; 2.4.6. Domain structures at equilibrium; 2.4.7. Domain stability map; 2.5. Temperature-misfit strain phase diagram for polydomain films

2.6. Discussion of the nature of the "misfit strain"

2.6.1. Mechanical misfit strain; 2.6.2. Thermodynamic misfit strain; 2.6.3. As an illustration; 2.7. Conclusion; 2.8. Experimental validation of phase diagrams: state of the art; 2.9. Case study; 2.10. Results; 2.10.1. Evolution of the lattice parameters; 2.10.2. Associated stresses and strains; 2.11. Comparison between the experimental data and the temperature-misfit strain phase diagrams; 2.11.1. Thin film of PZT; 2.11.2. Thin layer of PbTiO₃; 2.12. Conclusion; 2.13. Bibliography;

Chapter 3. Deposition and Patterning Technologies

3.1. Deposition method

3.1.1. Cathodic sputtering; 3.1.2. Ion beam sputtering; 3.1.3. Pulsed laser deposition; 3.1.4. The sol-gel process; 3.1.5. The MOCVD; 3.1.6. Molecular beam epitaxy; 3.2. Etching; 3.2.1. Wet etching; 3.2.2. Dry etching; 3.3. Contamination; 3.4. Monocrystalline thin-film transfer; 3.4.1. Smart Cut™ technology; 3.4.2. Bonding/thinning; 3.4.3. Interest in the material in a thin layer; 3.4.4. State of the art of the domain/applications; 3.4.5. An exemplary implementation; 3.5. Design of experiments; 3.5.1. The assumptions; 3.5.2. Reproducibility

3.5.3. How can we reduce the number of experiments? 3.5.4. A DOE example: PZT RF magnetron sputtering deposition; 3.6. Conclusion; 3.7. Bibliography;

Chapter 4. Analysis Through X-ray Diffraction of Polycrystalline Thin Films; 4.1. Introduction; 4.2. Some reminders of X-ray diffraction and crystallography; 4.2.1. Nature of X-rays; 4.2.2. X-ray scattering and diffraction; 4.3. Application to powder or polycrystalline thin-films; 4.4. Phase analysis by X-ray diffraction; 4.4.1. Grazing incidence diffraction; 4.4.2. De-texturing; 4.4.3. Quantitative analysis

4.5. Identification of coherent domain sizes of diffraction and micro-strains

Sommario/riassunto

This book describes up-to-date technology applied to high-K materials for More Than Moore applications, i.e. microsystems applied to microelectronics core technologies. After detailing the basic thermodynamic theory applied to high-K dielectrics thin films including extrinsic effects, this book emphasizes the specificity of thin films. Deposition and patterning technologies are then presented. A whole chapter is dedicated to the major role played in the field by X-Ray Diffraction characterization, and other characterization techniques are also described such as Radio frequency characterizat