

1. Record Nr.	UNINA9910831036703321
Titolo	Dielectric films for advanced microelectronics [[electronic resource] /] / edited by Mikhail Baklanov, Martin Green, and Karen Maex
Pubbl/distr/stampa	Chichester, England ; ; Hoboken, NJ, : John Wiley & Sons, c2007
ISBN	1-282-34620-2 9786612346200 0-470-01794-5 0-470-06541-9
Descrizione fisica	1 online resource (510 p.)
Collana	Wiley series in materials for electronic and optoelectronic applications
Altri autori (Persone)	BaklanovMikhail GreenMartin MaexKaren
Disciplina	621.381
Soggetti	Dielectric films Microelectronics - Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Low and ultralow dielectric constant films prepared by plasma-enhanced chemical vapor deposition / A. Grill -- Spin-on dielectric materials / Geraud Dubois, Robert D. Miller, Willi Volksen -- Positron annihilation spectroscopy / David W. Gidley, Hua-Gen Peng, Richard Vallery -- Structure characterization of nanoporous interlevel dielectric thin films with x-ray and neutron radiation / Christopher L. Soles ... [et al.] -- Ellipsometric porosimetry / Mikhail R. Baklanov -- Mechanical and transport properties of low-k dielectrics / J. L. Plawsky ... [et al.] -- Integration of low-k dielectric films in damascene processes / R. J. O. M. Hoofman ... [et al.] -- ONO structures and oxynitrides in modern microelectronics : material science, characterization and application / Yakov Roizin, Vladimir Gritsenko -- Material engineering of high-k gate dielectrics / Akira Toriumi, Koji Kita -- Physical characterization of ultra-thin high-k dielectric / T. Conard, H. Bender, W. Vandervorst -- Electrical characterization of advanced gate dielectrics / Robin Degraeve ... [et al.] -- Integration issues of high-k gate dielectrics / Yasuo Nara -- Anisotropic conductive film (ACF) for advanced

Sommario/riassunto

The topic of thin films is an area of increasing importance in materials science, electrical engineering and applied solid state physics; with both research and industrial applications in microelectronics, computer manufacturing, and physical devices. Advanced, high-performance computers, high-definition TV, broadband imaging systems, flat-panel displays, robotic systems, and medical electronics and diagnostics are a few examples of the miniaturized device technologies that depend on the utilization of thin film materials. This book presents an in-depth overview of the novel developments mad
