



Ceramic
T
Transactions
Volume 86

Integrated Thin Films and Applications

Edited by

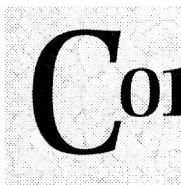
R.K. Pandey
University of Alabama

David E. Witter
MEMC Southwest

Usha Varshney
American Research Corporation of Virginia

Published by

The American Ceramic Society
735 Ceramic Place
Westerville, Ohio 43081



Contents

Preface	vii
---------------	-----

Film Growth Techniques and Applications

An Overview of Various Techniques for Preparation of Ferroelectric Thin Films for Device Applications.....	1
R. Dat and H.D. Shih	
PZT and PLZT Thick Films on Silver, Sapphire, and Silicon	15
Gene H. Haertling	
High-K Dielectric Materials for Memory Devices	31
L. Colombo, M.R. Visokay, Y. Okuno, R. Khamankar, M. Kressley, S. Summerfelt, and T. Moise	
The Controlled Growth of Perovskite Thin Films: Opportunities, Challenges, and Synthesis	41
Darrell G. Schlom, Chris D. Theis, and Marilyn E. Hawley	
Integrated Thin Films for Josephson Junctions, SQUIDS, and Electrically Tunable Microwave Devices	61
Q.X. Jia, D. Reagor, A.T. Findikoglu, and C. Mombourquette	
Self-Propagating High-Temperature Synthesis of Cd-In-Ga-O Powder for GaN Thin Film Substrate.....	73
Sy-Chyi Lin, Richard Wilkins, and Dan Luss	
Integration of High T _c Superconductor and Ferroelectric Films for Low-Temperature Electronics.....	87
S. Bhat, S.R. Surthi, Y. Li, R.K. Pandey, and U. Varshney	
Growth and Properties of KNbO ₃ Thin Films Prepared by Microwave Plasma-Assisted Pulsed Laser Deposition	101
Jong-Souk Yeo, Tzu-Fang Huang, Robert H. Hammond, and Lambertus Hesselink	
PLD Growth and Characterization of La-Ca-Mn-O CMR Films	109
S.R. Surthi, S. Bhat, R.K. Pandey, K.D.D. Rathnayaka, A. Parasiris, A.C. Du Mar, and D.G. Naugle	
Single Crystal Silicon as a Micromechanical Material	119
H. Kahn, M.J. Troyer, V.R. Prabhu, C.-L. Shih, S.R. Phillips, M.A. Huff, and A.H. Heurer	

