

174
E20/cs

VOL. 2, NO. 5, 2013

The logo for the ECS Journal of Solid State Science and Technology (JSSS) is prominently displayed. It features the letters 'JSSS' in a large, white, sans-serif font. The letters are set against a dark blue background that shows a close-up of a printed circuit board (PCB) with various components and traces. The 'J' is on the left, and the 'SSS' are to its right. The entire logo is centered horizontally and occupies the middle section of the cover.

JSSS

ECS JOURNAL OF SOLID STATE
SCIENCE AND TECHNOLOGY



Table of Contents

Dielectric Science and Materials

Mechanism of Modification of Fluorocarbon Polymer by Ultraviolet Irradiation in Oxygen Atmosphere

Quoc Toan Le, Sergej Naumov, Thierry Conard, Alexis Franquet, Matthias Müller, Burkhard Beckhoff, Christoph Adelmann, Herbert Struyf, Stefan De Gendt, Mikhail R. BaklanovN93

Reduced Pressure CVD Growth of Ge and Ge_{1-x}Sn_x Alloys

S. Wirths, D. Buca, G. Mussler, A. T. Tiedemann, B. Holländer, P. Bernardy, T. Stoica, D. Grützmacher, S. MantlN99

The Effects of Plasma Treatments and Subsequent Atomic Layer Deposition on the Pore Structure of a $k = 2.0$ Low-k Material

P. Verdonck, A. Maheshwari, J. Swerts, A. Delabie, T. Witters, H. Tielens, S. Dewilde, A. Franquet, J. Meersschaut, T. Conard, J. Loyo Prado, S. Armini, M. R. Baklanov, S. Van Elshocht, A. Uedono, Danilo Roque Huanca, S. Gomes dos Santos Filho, Günther KellermanN103

Influence of Atomic Layer Deposition Temperatures on TiO₂/n-Si MOS Capacitor

D. Wei, T. Hossain, N. Y. Garces, N. Nepal, H. M. Meyer III, M. J. Kirkham, C. R. Eddy Jr., J. H. EdgarN110

Evaluation of Titanium Direct Bonding Mechanism

F. Baudin, V. Delaye, C. Guedj, N. Chevalier, D. Mariolle, B. Imbert, J. M. Fabbri, L. Di Cioccio, Y. BréchetN115

Crystallization Study by Transmission Electron Microscopy of SrTiO₃ Thin Films Prepared by Plasma-Assisted ALD

V. Longo, M. A. Verheijen, F. Roozeboom, W. M. M. KesselsN120

Area Dependence of Reliability Characteristics for Atomic Layer Deposition HfO₂ Film under Static and Dynamic Stress

Yi-Lung Cheng, You-Ling Chang, Cheng-Yang Hsieh, Jian-Run LinN125

Electronic Materials and Processing

Photoluminescence Characterization of Defects in Rapidly Annealed Ultra Shallow Junctions

Masahiro Yoshimoto, Masashi Okutani, Gota Murai, Shuji Tagawa, Hiroki Saikusa, Shuhei Takashima, Woo Sik YooP195

Investigation of Percarbonate Based Slurry Chemistry for Controlling Galvanic Corrosion during CMP of Ruthenium

M. C. Turk, S. E. Rock, H. P. Amanapu, L. G. Teugels, D. RoyP205

Visualization of Plasma Etching Damage of Si Using Room Temperature Photoluminescence and Raman Spectroscopy

Shiu-Ko Jang Jian, Chih-Cherng Jeng, Ting-Chun Wang, Chih-Mu Huang, Ying-Lang Wang, Woo Sik YooP214

Nanoindentation Damage near Silicon Surface Embossed by Immersion in Ultralow-Dissolved-Oxygen Water

Ryu Hasunuma, Shun Kudo, Katsuya Kamata, Kikuo YamabeP225

Laser-Induced Epitaxial Growth Technology for Monolithic Three Dimensional Integrated Circuits

Yong-Hoon Son, Sangsoo Lee, Kihyun Hwang, Seung Jae Baik, Euijoon YoonP230

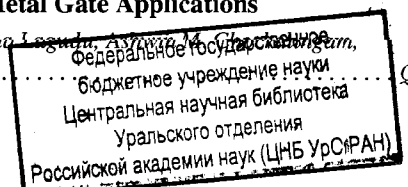
Interface-Mediated Photostimulation Effects on Diffusion and Activation of Boron Implanted into Silicon

Yevgeniy Kondratenko, Edmund G. SeebauerP235

Electronic and Photonic Devices, and Systems

Chemical Mechanical Polishing of Al-Co Films for Replacement Metal Gate Applications

Uma Rames Krishna Legada, S. V. BabuQ77



Luminescence and Display Materials, Devices, and Processing

**Luminescence Properties of Dual-Emission
Ce³⁺, Mn²⁺ Doped NaSrBO₃ Phosphors**

Xinguo Zhang, Liya Zhou, Menglian Gong R83

**Formation of Photo-Luminescent Patterns
on Paper Using Nanocrystalline Quantum Dot Ink
and Mist Deposition**

A. Kshirsagar, Z. Jiang, S. Pickering, J. Xu, J. Ruzyllo R87

**Towards Better Phosphor Design: Effect of SiO₂
Nanoparticles on Photoluminescence**

Enhancement of YAG:Ce

*Takashi Ogi, Asep Bayu Dani Nandiyanto,
Kousuke Okino, Ferry Iskandar, Wei-Ning Wang,
Eishi Tanabe, Kikuo Okuyama R91*