

Contents

Ulrich Eckern and Gerd Schön

Charge Transfer between Weakly Coupled Normal Metals and Superconductors at Low Temperatures	1
---	----------

Wilhelm Zwerger

Quantum Effects and the Onset of Superconductivity in Granular Films	19
---	-----------

Ingo Rehberg, Bernhard L. Winkler, Manuel de la Torre Juarez, Steffen Rasenat, and Wolfgang Schöpf

Pattern Formation in a Liquid Crystal	35
--	-----------

Bruno Lengeler

X-Ray Absorption and Reflection in Materials Sciences	53
--	-----------

James P. Wolfe

Propagation of Large-Wavevector Acoustic Phonons New Perspective from Phonon Imaging	75
---	-----------

Wolfgang Ludwig

Theory of Dynamical Surface States and Reconstructions at Crystal Surface	107
--	------------

Henning Neddermeyer and Stephan Tosch

Scanning tunneling microscopy and spectroscopy on clean and metal-covered Si surfaces	133
--	------------

Jürgen Kuhl, Alfred Honold, Lothar Schultheis, and Charles W. Tu

Optical Dephasing and Orientational Relaxation of Wannier-Excitons and Free Carriers in GaAs and GaAs/Al_xGa_{1-x}As Quantum Wells	157
---	------------

Ulrich Kaufmann

The Spectroscopic Evidence for the Identity of EL2 and the As_{Ga} Antisite in As-Grown GaAs	183
---	------------

<i>Bruno Meyer, Klaus Krambock, Detlev Hofmann, and Johann-Martin Spaeth</i> On the Charge State of the EL2 Mid Gap Level in Semi-Insulating GaAs from a Quantitative Analysis of the Compensation	201
<i>Patricia M. Mooney</i> Deep Donor Levels (DX Centers) in III–V Semiconductors: Recent Experimental Results	215
<i>Matthias Scheffler</i> Chemical Binding, Stability and Metastability of Defects in Semiconductors	231
<i>Rolf E. Hummel</i> A New Look at the Reliability of Thin Film Metallizations for Microelectronic Devices	251
<i>Mark A. Reed, John N. Randall, James H. Luscombe, William R. Frensley, Raj J. Aggarwal, Richard J. Matyi, Tom M. Moore, and Anna E. Wetsel</i> Quantum Dot Resonant Tunneling Spectroscopy	267
<i>Detlef Heitmann, Thorsten Demel, Peter Grambow, and Klaus Ploog</i> DC and Far Infrared Experiments on Deep Mesa Etched Single and Multi-Layered Quantum Wires	285
<i>C. W. J. Beenakker, H. van Houten, and B. J. van Wees</i> Coherent electron focusing	299
<i>Peter Marquardt and Guenther Nimtz</i> The Size-Induced Metal-Insulator Transition and Related Electron Interference Phenomena in Modern Microelectronics	317