

PHYSICAL REVIEW B

For editorial and subscription correspondence,
please see inside front cover
(ISSN: 0163-1829)

SECOND CLASS
Postmaster send address changes to:
American Institute of Physics
500 Sunnyside Boulevard
Woodbury, NY 11797-2999

THIRD SERIES, VOLUME 53, NUMBER 7

CONTENTS

15 FEBRUARY 1996-I

Semiconductors I: bulk

- Photoluminescence transient-decay study of the deep-donor bound-exciton-emission band in high-purity InP 3627
R. Benzaquen, S. Charbonneau, R. Leonelli, and A. P. Roth
- Quantum lattice fluctuations in the ground state of nondegenerate polymers 3630
C. Q. Wu
- Vanadium in CdTe: An electron-paramagnetic-resonance study 3634
P. Christmann, B. K. Meyer, J. Kreissl, R. Schwarz, and K. W. Benz

Semiconductors II: surfaces, interfaces, microstructures, and related topics

- Semiclassical scattering theory for ballistic electron transport in semiconductor microstructures: Unitarity, coherent backscattering, and weak localization 3638
W. A. Lin and R. V. Jensen
- Precise period doubling of the Aharonov-Bohm effect in a quantum dot at high magnetic fields 3642
J. P. Bird, K. Ishibashi, Y. Aoyagi, and T. Sugano
- Spin-dependent resonant tunneling through semimetallic ErAs quantum wells in a magnetic field 3646
A. G. Petukhov, W. R. L. Lambrecht, and B. Segall
- Charged particles in random magnetic fields and the critical behavior in the fractional quantum Hall effect 3650
Bodo Huckestein

Surface physics, low-dimensional systems, and related topics

- Exact calculation of Maxwell equations for a tip-metallic interface configuration: Application to atomic resolution by photon emission 3654
A. Madrazo, M. Nieto-Vesperinas, and N. García
- Vibrational analysis of cesium on Ru(0001) 3658
Peimo He and Karl Jacobi

ARTICLES

Electronic structure: wide-band, narrow-band, and strongly correlated systems

- Quasiparticle spectra of *trans*-polyacetylene 3662
E. C. Ethridge, J. L. Fry, and Marco Zaider
- Expansivity and heat capacity data for Lu and Sc crystals from 1 to 300 K: Spin-fluctuation and electron-phonon effects 3669
C. A. Swenson
- Linear thermal expansivity and C_p measurements for LuH_x and LuD_x ($x=0.005$ and 0.053) single crystals 3680
C. A. Swenson
- First-principles LCGO calculation of the magneto-optical properties of nickel and iron 3692
Neeraj Mainkar, D. A. Browne, and J. Callaway
- ac conductivity of incommensurate lattices: Anatomy of wave functions 3702
Avijit Lahiri
- Phase diagram of the one-dimensional Anderson lattice 3707
M. Guerrero and R. M. Noack

(Continued)



0163-1829(19960215)53:7;1-F