PHYSICAL REVIEW B

For editorial and subscription correspondence,
please see inside front cover
(ISSN: 1098-0121)

PERIODICALS
Postmaster send address changes to:
American Institute of Physics
Suite 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 70, NUMBER 24 *CONTENTS* **DECEMBER 2004-15(II)**

RAPID COMMUNICATIONS

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

High-resolution vacuum ultraviolet spectroscopy of 5*d*-4*f* transitions in Gd and Lu fluorides *(4 pages)* . . . . . 241101(R)
M. Kirm, J. C. Krupa, V. N. Makhov, M. True, S. Vielhauer, and G. Zimmerer

Theory for photoinduced phase transition from a charge-density-wave state to a Mott-Hubbard insulator in a quasi-one-dimensional Br-bridged Pd compound *(4 pages)* . . . . . 241102(R)
Kaoru Iwano

Ab initio Wannier-function-based many-body approach to Born charges of crystalline insulators *(4 pages)* . . . . 241103(R)
Priya Sony and Alok Shukla

Spatial inhomogeneity and strong correlation physics: A dynamical mean-field study of a model Mott-insulator–band-insulator heterostructure *(4 pages)* . . . . . 241104(R)
Satoshi Okamoto and Andrew J. Millis

Semiconductors I: bulk

A quantitative evaluation of metallic conduction in conjugated polymers *(4 pages)* . . . . . 241201(R)
H. C. F. Martens and H. B. Brom

Spectroscopic study of spin-dependent exciton formation rates in π-conjugated semiconductors: Comparison with electroluminescence techniques *(4 pages)* . . . . . 241202(R)
C. Yang, Z. V. Vardeny, A. Köhler, M. Wohlgenannt, M. K. Al-Suti, and M. S. Khan

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

Manifestation of the spin Hall effect through charge-transport in the mesoscopic regime *(4 pages)* . . . . . 241301(R)
E. M. Hankiewicz, L. W. Molenkamp, T. Jungwirth, and Jairo Sinova

Modulation of spin dynamics in a channel of a nonballistic spin field effect transistor *(4 pages)* . . . . . 241302(R)
Ehud Shafir, Min Shen, and Semion Saikin

Endohedral silicon nanotubes as thinnest silicide wires *(4 pages)* . . . . . 241303(R)
Traian Dumitrică, Ming Hua, and Boris I. Yakobson

Semiconductor few-electron quantum dot operated as a bipolar spin filter *(4 pages)* . . . . . 241304(R)
R. Hanson, L. M. K. Vandersypen, L. H. Willems van Beveren, J. M. Elzerman, I. T. Vink, and L. P. Kouwenhoven

Optical and magnetic anisotropies of the hole states in Stranski-Krastanov quantum dots *(4 pages)* . . . . . 241305(R)
A. V. Koudinov, I. A. Akimov, Yu. G. Kusrayev, and F. Henneberger

World Year of PHYSICS 2005
www.physics2005.org

Copyright 2004 by The American Physical Society

1098-0121(20041215)70:24;1-1

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 70, NUMBER 24** **DECEMBER 2004-15(II)**

Insulating behavior of dilute two-dimensional holes in GaAs under an in-plane magnetic field *(4 pages)* . . . . . 241306(R)
Hwayong Noh, Jongsoo Yoon, Daniel C. Tsui, and Mansour Shayegan

Quantum Hall fractions in ultracold fermionic vapors *(4 pages)* . . . . . 241307(R)
N. Regnault and Th. Jolicoeur

Giant effect of electron and hole donation on Sn/Ge(111) and Sn/Si(111) surfaces *(4 pages)* . . . . . 241308(R)
M. E. Dávila, J. Avila, M. C. Asensio, and G. Le Lay

Surface physics, low-dimensional systems, and related topics

Atomic scale study of superlow friction between hydrogenated diamond surfaces *(4 pages)* . . . . . 241401(R)
S. Dag and S. Ciraci

Faulted surface layers in dysprosium silicide nanowires *(4 pages)* . . . . . 241402(R)
Zhian He, David J. Smith, and P. A. Bennett

Observation of rapid Auger recombination in optically excited semiconducting carbon nanotubes *(4 pages)* . . . 241403(R)
Feng Wang, Gordana Dukovic, Ernst Knoesel, Louis E. Brus, and Tony F. Heinz

Conduction channels of one-atom zinc contacts *(4 pages)* . . . . . 241404(R)
M. Häfner, P. Konrad, F. Pauly, J. C. Cuevas, and E. Scheer

ARTICLES

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

Quasiparticle structure in the vicinity of the Heisenberg model in one and higher dimensions *(5 pages)* 245101
Y. Morita, Y. Hatsugai, and Y. Otsuka

Omnidirectional gap and defect mode of one-dimensional photonic crystals with single-negative materials *(6 pages)* 245102
Li-Gang Wang, Hong Chen, and Shi-Yao Zhu

Fully transferable interatomic potentials for large-scale computer simulations of simple metal oxides: Application to MgO *(6 pages)* 245103
Andrés Aguado and Paul A. Madden

Field-induced phase transitions in a Kondo insulator *(6 pages)* 245104
Takuma Ohashi, Akihisa Koga, Sei-ichiro Suga, and Norio Kawakami

Magnetoacoustic effects in copper using surface acoustic waves *(6 pages)* 245105
J. D. Gavenda and Michael D. Foegelle

Electronic structure of $KD_{2x}H_{2(1-x)}PO_4$ studied by soft x-ray absorption and emission spectroscopies *(9 pages)* 245106
S. O. Kucheyev, C. Bostedt, T. van Buuren, T. M. Willey, T. A. Land, L. J. Terminello, T. E. Felter, A. V. Hamza, S. G. Demos, and A. J. Nelson

Metal-insulator transition in boron-ion-implanted diamond *(7 pages)* 245107
T. Tshepe, C. Kasl, J. F. Prins, and M. J. R. Hoch

Spectra and energy levels of $Tm^{3+}(4f^{12})$ in AlN *(11 pages)* 245108
John B. Gruber, Ulrich Vetter, Hans Hofsäss, Bahram Zandi, and Michael F. Reid

Giant enhancement of second harmonic generation in a finite photonic crystal with a single defect and dual-localized modes *(4 pages)* 245109
Fang-Fang Ren, Rui Li, Chen Cheng, Hui-Tian Wang, Jianrong Qiu, Jinhai Si, and Kazuyuki Hirao

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 70, NUMBER 24** **DECEMBER 2004-15(II)**

Variational cluster approach to spontaneous symmetry breaking: The itinerant antiferromagnet in two dimensions *(12 pages)* 245110
C. Dahnken, M. Aichhorn, W. Hanke, E. Arrigoni, and M. Potthoff

Electronic structures of B 2*p* and C 2*p* levels in boron-doped diamond films studied using soft x-ray absorption and emission spectroscopy *(6 pages)* 245111
Jin Nakamura, Eiki Kabasawa, Nobuyoshi Yamada, Yasuaki Einaga, Daisuke Saito, Hideo Isshiki, Shigemi Yugo, and Rupert C. C. Perera

Theory of the metal-insulator transition in $PrRu_4P_{12}$ and $PrFe_4P_{12}$ *(6 pages)* 245112
S. H. Curnoe, H. Harima, K. Takegahara, and K. Ueda

Charge degrees of freedom in frustrated lattice structures *(11 pages)* 245113
Erich Runge and Peter Fulde

de Haas–van Alphen and chemical potential oscillations in the magnetic-breakdown quasi-two-dimensional organic conductor κ-$(BEDT\text{-}TTF)_2Cu(NCS)_2$ *(8 pages)* 245114
V. M. Gvozdikov, A. G. M. Jansen, D. A. Pesin, I. D. Vagner, and P. Wyder

Band-gap energy in the random-phase approximation to density-functional theory *(12 pages)* 245115
Y. M. Niquet and X. Gonze

Electronic structure and electron energy-loss spectroscopy of ZrO_2 zirconia *(17 pages)* 245116
L. K. Dash, Nathalie Vast, Philippe Baranek, Marie-Claude Cheynet, and Lucia Reining

Electron energy-loss spectroscopy of the O *K* edge of NbO_2, MoO_2, and WO_2 *(7 pages)* 245117
Nan Jiang and John C. H. Spence

Extending Luttinger's theorem to Z_2 fractionalized phases of matter *(23 pages)* 245118
Arun Paramekanti and Ashvin Vishwanath

Excitonic effects in time-dependent density-functional theory: An analytically solvable model *(12 pages)* . . . 245119
R. Stubner, I. V. Tokatly, and O. Pankratov

X-ray absorption spectra at the Ca $L_{2,3}$ edge calculated within multichannel multiple scattering theory *(10 pages)* 245120
Peter Krüger and Calogero R. Natoli

Localization of transverse waves in randomly layered media at oblique incidence *(7 pages)* 245121
K. Yu. Bliokh and V. D. Freilikher

High-resolution photoemission mapping of the three-dimensional band structure of Bi(111) *(8 pages)* 245122
Christian R. Ast and Hartmut Höchst

Electronic and vibrational properties of the low-dimensional perovskites $Sr_{1-y}La_yNbO_{3.5-x}$ *(10 pages)* 245123
C. A. Kuntscher, S. Schuppler, P. Haas, B. Gorshunov, M. Dressel, M. Grioni, and F. Lichtenberg

Systematic mapping of the Hubbard model to the generalized *t-J* model *(15 pages)* 245124
Alexander Reischl, Erwin Müller-Hartmann, and Götz S. Uhrig

Orbital ordering near a Mott transition: Resonant x-ray scattering study of the perovskite Ti oxides $RTiO_3$ and $LaTiO_{3.02}$ (R=Gd, Sm, Nd, and La) *(8 pages)* 245125
M. Kubota, H. Nakao, Y. Murakami, Y. Taguchi, M. Iwama, and Y. Tokura

Semiconductors I: bulk

Complexes, clustering, and native-defect-assisted diffusion of aluminum in silicon *(7 pages)* 245201
Paolo Schirra, Giorgia M. Lopez, and Vincenzo Fiorentini

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 70, NUMBER 24** **DECEMBER 2004-15(II)**

Neutral Mn acceptor in bulk GaN in high magnetic fields *(8 pages)* 245202
A. Wolos, A. Wysmolek, M. Kaminska, A. Twardowski, M. Bockowski, I. Grzegory, S. Porowski, and M. Potemski

Spin scattering by dislocations in III-V semiconductors *(8 pages)* 245203
Debdeep Jena

Silicon vacancy annealing and D_I luminescence in 6*H*-SiC *(15 pages)* 245204
M. V. B. Pinheiro, E. Rauls, U. Gerstmann, S. Greulich-Weber, H. Overhof, and J.-M. Spaeth

First-principles study of the preference for zinc-blende or rocksalt structures in FeN and CoN *(8 pages)* 245205
Pavel Lukashev and Walter R. L. Lambrecht

Vibronic effects in the 1.4-eV optical center in diamond *(8 pages)* 245206
Konstantin Iakoubovskii and Gordon Davies

Highly *n*-doped silicon: Deactivating defects of donors *(8 pages)* 245207
D. Christoph Mueller and Wolfgang Fichtner

Intrinsic defect properties in GaN calculated by *ab initio* and empirical potential methods *(8 pages)* 245208
Fei Gao, Eric J. Bylaska, and William J. Weber

Anharmonic effects on infrared spectra of GaAs and GaP: First-principles calculations *(6 pages)* 245209
Hadley M. Lawler and Eric L. Shirley

Semiclassical kinetic theory of electron spin relaxation in semiconductors *(22 pages)* 245210
Franz X. Bronold, Avadh Saxena, and Darryl L. Smith

Optical properties of metallic (III, Mn)V ferromagnetic semiconductors in the infrared to visible range *(10 pages)* 245211
E. M. Hankiewicz, T. Jungwirth, T. Dietl, C. Timm, and Jairo Sinova

Low-field charge-carrier hopping transport in energetically and positionally disordered organic materials *(12 pages)* 245212
I. I. Fishchuk, A. Kadashchuk, H. Bässler, and M. Abkowitz

Effect of Zn on the cation vacancy–isoelectronic oxygen pair in $Cd_{1-x}Zn_xTe$ crystals *(4 pages)* 245213
Salah A. Awadalla, Kelvin G. Lynn, Su-Huai Wei, and Csaba Szeles

Ab initio molecular dynamics simulations of liquid structure change with temperature for a GaSb alloy *(7 pages)* 245214
Tingkun Gu, Jingyu Qin, Xiufang Bian, Changye Xu, and Yuanhua Qi

Direct experimental evidence for unusual effects of hydrogen on the electronic and vibrational properties of GaN_xP_{1-x} alloys: A proof for a general property of dilute nitrides *(4 pages)* 245215
I. A. Buyanova, M. Izadifard, I. G. Ivanov, J. Birch, W. M. Chen, M. Felici, A. Polimeni, M. Capizzi, Y. G. Hong, H. P. Xin, and C. W. Tu

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

Surface electronic structure of K- and Cs-induced $\sqrt{21}\times\sqrt{21}$ phases on Ag/Si(111)$\sqrt{3}\times\sqrt{3}$ *(7 pages)* 245301
H. M. Zhang, Kazuyuki Sakamoto, and R. I. G. Uhrberg

Coulomb drag in high Landau levels *(20 pages)* 245302
I. V. Gornyi, A. D. Mirlin, and F. von Oppen

Interference effects in the conductance of multilevel quantum dots *(13 pages)* 245303
C. A. Büsser, G. B. Martins, K. A. Al-Hassanieh, Adriana Moreo, and Elbio Dagotto

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 70, NUMBER 24** **DECEMBER 2004-15(II)**

Softening of spin resonance at low temperature in *p*-doped $Cd_{1-x}Mn_xTe$ quantum wells *(7 pages)* 245304
D. Scalbert, F. Teppe, M. Vladimirova, S. Tatarenko, J. Cibert, and M. Nawrocki

Floquet scattering theory for current and heat noise in large amplitude adiabatic pumps *(15 pages)* 245305
M. Moskalets and M. Büttiker

Quantum-limited position detection and amplification: A linear response perspective *(9 pages)* 245306
A. A. Clerk

Non-Markovian effects on the two-dimensional magnetotransport: Low-field anomaly in magnetoresistance *(15 pages)* 245307
Vadim V. Cheianov, A. P. Dmitriev, and V. Yu. Kachorovskii

Coherent electronic transport in a multimode quantum channel with Gaussian-type scatterers *(10 pages)* 245308
Jens Hjorleifur Bardarson, Ingibjorg Magnusdottir, Gudny Gudmundsdottir, Chi-Shung Tang, Andrei Manolescu, and Vidar Gudmundsson

Spin relaxation dynamics of quasiclassical electrons in ballistic quantum dots with strong spin-orbit coupling *(13 pages)* 245309
Cheng-Hung Chang, A. G. Mal'shukov, and K. A. Chao

Spin-dependent transport of electrons in the presence of a smooth lateral potential and spin-orbit interaction *(6 pages)* 245310
Alexander O. Govorov, Alexander V. Kalameitsev, and John P. Dulka

Weak localization in high-quality two-dimensional systems *(16 pages)* 245311
S. McPhail, C. E. Yasin, A. R. Hamilton, M. Y. Simmons, E. H. Linfield, M. Pepper, and D. A. Ritchie

Exciton spin relaxation in quasiresonantly excited CdTe/ZnTe self-assembled quantum dots *(9 pages)* 245312
S. Mackowski, T. A. Nguyen, T. Gurung, K. Hewaparakrama, H. E. Jackson, L. M. Smith, J. Wrobel, K. Fronc, J. Kossut, and G. Karczewski

Quantum master equations for the superconductor–quantum dot entangler *(15 pages)* 245313
Olivier Sauret, Denis Feinberg, and Thierry Martin

Hydrogen-bridge bonding on semiconductor surfaces: Density-functional calculations *(4 pages)* 245314
J. M. Ripalda, J. D. Gale, and T. S. Jones

Fast isotropic adatom diffusion on Ge(105) dot facets *(8 pages)* 245315
F. Montalenti, D. B. Migas, F. Gamba, and Leo Miglio

Magnetotransport measurements on a damaged surface of *p*-type InAs and the annealing effect *(5 pages)* 245316
Yukihide Tsuji and Tohru Okamoto

Charging-induced asymmetry in molecular conductors *(5 pages)* 245317
F. Zahid, A. W. Ghosh, M. Paulsson, E. Polizzi, and S. Datta

Spin pumping and magnetization dynamics in ferromagnet–Luttinger liquid junctions *(7 pages)* 245318
Cristina Bena and Leon Balents

Conductance of a quantum wire at low electron density *(15 pages)* 245319
K. A. Matveev

Migration, incorporation, and passivation reactions of molecular hydrogen at the $Si\text{-}SiO_2$ interface *(6 pages)* .. 245320
L. Tsetseris and S. T. Pantelides

Confinement effects in PbSe quantum wells and nanocrystals *(9 pages)* 245321
G. Allan and C. Delerue

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 70, NUMBER 24** **DECEMBER 2004-15(II)**

Augmented-plane-wave approach to scattering of Bloch electrons by an interface *(11 pages)* 245322
E. E. Krasovskii

Doping-dependent changes in nitrogen 2*p* states in the diluted magnetic semiconductor $Ga_{1-x}Cr_xN$ *(4 pages)* 245323
T. Takeuchi, Y. Harada, T. Tokushima, M. Taguchi, Y. Takata, A. Chainani, J. J. Kim, H. Makino, T. Yao, T. Yamamoto, T. Tsukamoto, S. Shin, and K. Kobayashi

Spin pump in the presence of a superconducting lead *(8 pages)* 245324
Yanxia Xing, Bin Wang, Yadong Wei, Baigeng Wang, and Jian Wang

Temperature dependent magnetic anisotropy in (Ga,Mn)As layers *(6 pages)* 245325
M. Sawicki, F. Matsukura, A. Idziaszek, T. Dietl, G. M. Schott, C. Ruester, C. Gould, G. Karczewski, G. Schmidt, and L. W. Molenkamp

Surface physics, low-dimensional systems, and related topics

Ternary half-metallics and related binary compounds: Stoichiometry, surface states, and spin *(11 pages)* 245401
S. J. Jenkins

Empirical-potential study of phonon transport in graphitic ribbons *(7 pages)* 245402
Takahiro Yamamoto, Kazuyuki Watanabe, and Kazuaki Mii

Relaxation kinetics of nano-ripples on Cu(001) surface *(9 pages)* 245403
Wai Lun Chan, Ashwin Ramasubramaniam, Vivek B. Shenoy, and Eric Chason

Effects of next-nearest-neighbor interactions on the orientation dependence of step stiffness: Reconciling theory with experiment for Cu(001) *(7 pages)* 245404
T. J. Stasevich, T. L. Einstein, R. K. P. Zia, M. Giesen, H. Ibach, and F. Szalma

Nucleation and growth of Pd-Au alloy particles on crystalline graphite at elevated temperatures *(7 pages)* . . . 245405
R. Anton

Surface polaritons on metallic and semiconducting cylinders: A complex angular momentum analysis *(13 pages)* 245406
Stéphane Ancey, Yves Décanini, Antoine Folacci, and Paul Gabrielli

Low-energy electron diffraction study of potassium adsorbed on single-crystal graphite and highly oriented pyrolytic graphite *(6 pages)* 245407
N. Ferralis, K. Pussi, S. E. Finberg, J. Smerdon, M. Lindroos, R. McGrath, and R. D. Diehl

Transition from two-dimensional to three-dimensional melting in Langmuir-Blodgett films *(9 pages)* 245408
M. K. Mukhopadhyay, M. K. Sanyal, A. Datta, M. Mukherjee, Th. Geue, J. Grenzer, and U. Pietsch

Analysis of the interface in a nonequilibrium two-temperature Ising model *(10 pages)* 245409
P. I. Hurtado, P. L. Garrido, and J. Marro

Field emission mechanisms of graphitic nanostructures *(5 pages)* 245410
Masaaki Araidai, Yasuhiro Nakamura, and Kazuyuki Watanabe

Metastability of a gold nanoring: Density-functional calculations *(5 pages)* 245411
Q. Sun, Q. Wang, P. Jena, R. Note, J-Z. Yu, and Y. Kawazoe

Impurity effects on resonant Andreev reflection in a finite-sized carbon nanotube system *(5 pages)* 245412
Hui Pan, Tsung-Han Lin, and Dapeng Yu

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 70, NUMBER 24** **DECEMBER 2004-15(II)**

Relationship between domain-boundary free energy and the temperature dependence of stress-domain patterns of Pb on Cu(111) *(6 pages)* 245413
R. van Gastel, N. C. Bartelt, P. J. Feibelman, F. Léonard, and G. L. Kellogg

Conservative and dissipative forces measured by self-oscillator atomic force microscopy at constant-drive amplitude *(9 pages)* 245414
Vladimir V. Protasenko, Massimiliano Labardi, and Alan Gallagher

Manipulation and adsorption-site mapping of single pentacene molecules on Cu(111) *(6 pages)* 245415
Jérôme Lagoute, Kiyoshi Kanisawa, and Stefan Fölsch

Mechanical properties of carbon nanotubes with vacancies and related defects *(8 pages)* 245416
M. Sammalkorpi, A. Krasheninnikov, A. Kuronen, K. Nordlund, and K. Kaski

Oxygen adsorption on Cu(100): First-principles pseudopotential calculations *(6 pages)* 245417
M. Alatalo, S. Jaatinen, P. Salo, and K. Laasonen

Self-organized nanoscale multilayer growth in hyperthermal ion deposition *(8 pages)* 245418
I. Gerhards, H. Stillrich, C. Ronning, H. Hofsäss, and M. Seibt

Nonlinear dynamics of vibrating microcantilevers in tapping-mode atomic force microscopy *(10 pages)* 245419
Kazuyuki Yagasaki

Neon adsorbed in carbon nanotube bundles *(7 pages)* 245420
M. C. Gordillo, L. Brualla, and S. Fantoni

Carbon nanotube/metal interface studied by cross-sectional transmission electron microscopy *(5 pages)* 245421
N. Y. Jin-Phillipp and M. Rühle

Dynamics of adatoms of the Si(111)-(7×7) surface studied by reflection high-energy positron diffraction *(5 pages)* 245422
Y. Fukaya, A. Kawasuso, K. Hayashi, and A. Ichimiya

Magnetoresistance and dephasing in a two-dimensional electron gas at intermediate conductances *(24 pages)* 245423
G. M. Minkov, A. V. Germanenko, and I. V. Gornyi

2×1 reconstructed Si(111) surface: STM experiments versus *ab initio* calculations *(7 pages)* 245424
J. K. Garleff, M. Wenderoth, K. Sauthoff, R. G. Ulbrich, and M. Rohlfing

Ab initio study of OH-functionalized single-wall carbon nanotubes *(5 pages)* 245425
H. Pan, Y. P. Feng, and J. Y. Lin

Impurity-doped Si_{10} cluster: Understanding the structural and electronic properties from first-principles calculations *(7 pages)* 245426
Chiranjib Majumder and S. K. Kulshreshtha

Ab initio transmission electron microscopy image simulations of coherent Ag-MgO interfaces *(9 pages)* 245427
S. Mogck, B. J. Kooi, J. Th. M. De Hosson, and M. W. Finnis

Importance of proper choice of transition rates in kinetic simulations of dynamic processes *(6 pages)* 245428
Z. Erdélyi and D. L. Beke

Reconstructing the radial breathing mode resonance Raman spectra for HiPco single-wall carbon nanotubes *(8 pages)* 245429
Zhengtang Luo, Rongfu Li, Sang Nyon Kim, and Fotios Papadimitrakopoulos

Absolute surface free energies of perfect low-index orientations of metals and semiconductors *(9 pages)* 245430
H. P. Bonzel and M. Nowicki

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 70, NUMBER 24** **DECEMBER 2004-15(II)**

Detecting surface resonance states of Si(111)-$\sqrt{3}\times\sqrt{3}$-Ag with a scanning tunneling microscope *(5 pages)* . . . 245431
Lan Chen, H. J. Xiang, Bin Li, Aidi Zhao, Xudong Xiao, Jinlong Yang, J. G. Hou, and Qingshi Zhu

Trend for the multilayer relaxation sequence of stepped Cu surfaces *(9 pages)* 245432
Juarez L. F. Da Silva, Kurt Schroeder, and Stefan Blügel

Growth, magic behavior, and electronic and vibrational properties of Cr-doped Si clusters *(10 pages)* 245433
Hiroaki Kawamura, Vijay Kumar, and Yoshiyuki Kawazoe

Nonlinear Mie scattering from spherical particles *(8 pages)* 245434
Y. Pavlyukh and W. Hübner

Electronic properties of barium-intercalated single-wall carbon nanotubes *(7 pages)* 245435
X. Liu, T. Pichler, M. Knupfer, and J. Fink

ERRATA

Erratum: Phonon transport in nanowires coated with an amorphous material: An atomistic Green's function approach [Phys. Rev. B **68**, 245406 (2003)] *(1 page)* . . . . . 249901(E)
N. Mingo and Liu Yang

Publisher's Note: Disordered carbon nanotube alloys in the effective-medium supercell approximation [Phys. Rev. B **70**, 205425 (2004)] *(1 page)* . . . . . 249902(E)
Rostam Moradian

Erratum: Second generation of composite fermions in the Hamiltonian theory [Phys. Rev. B **69**, 155324 (2004)] *(2 pages)* . . . . . 249903(E)
M. O. Goerbig, P. Lederer, and C. Morais Smith

Publisher's Note: Single Mott transition in the multiorbital Hubbard model [Phys. Rev. B **70**, 165103 (2004); 209903(E) (2004)] *(1 page)* . . . . . 249904(E)
A. Liebsch

Publisher's Note: Exciton spin relaxation in quasiresonantly excited CdTe/ZnTe self-assembled quantum dots [Phys. Rev. B **70**, 245312 (2004)] *(1 page)* . . . . . 249905(E)
S. Mackowski, T. A. Nguyen, T. Gurung, K. Hewaparakrama, H. E. Jackson, L. M. Smith, J. Wrobel, K. Fronc, J. Kossut, and G. Karczewski

Erratum: Orientation effects in the electronic and optical properties of germanium quantum wires [Phys. Rev. B **70**, 035317 (2004)] *(1 page)* . . . . . 249906(E)
Alexandre N. Kholod, V. L. Shaposhnikov, N. Sobolev, V. E. Borisenko, F. Arnaud D'Avitaya, and Stefano Ossicini

Cumulative Author Index i