

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 20

CONTENTS

NOVEMBER 2004-15(II)

RAPID COMMUNICATIONS

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

- Left- and right-handed transmission peaks near the magnetic resonance frequency in composite metamaterials
(4 pages) 201101(R)
N. Katsarakis, T. Koschny, M. Kafesaki, E. N. Economou, Ekmel Ozbay, and C. M. Soukoulis
- Mapping from current densities to vector potentials in time-dependent current density functional theory
(4 pages) 201102(R)
Giovanni Vignale

Semiconductors I: bulk

- Large crystal local-field effects in the dynamical structure factor of rutile TiO_2 (4 pages) 201201(R)
I. G. Gurtubay, Wei Ku, J. M. Pitarke, A. G. Eguiluz, B. C. Larson, J. Tischler, and P. Zschack
- Low-temperature ferromagnetism in (Ga, Mn)N: *Ab initio* calculations (4 pages) 201202(R)
K. Sato, W. Schweika, P. H. Dederichs, and H. Katayama-Yoshida
- Energy levels and decoherence properties of single electron and nuclear spins in a defect center in diamond
(4 pages) 201203(R)
I. Popa, T. Gaebel, M. Domhan, C. Wittmann, F. Jelezko, and J. Wrachtrup
- Annealing of vacancy-related defects in semi-insulating SiC (4 pages) 201204(R)
U. Gerstmann, E. Rauls, and H. Overhof
- Spin injection into semiconductors driven by a spin battery (4 pages) 201205(R)
L. B. Shao and D. Y. Xing

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

- Temperature dependence of the zero-phonon linewidth in InAs/GaAs quantum dots (4 pages) 201301(R)
G. Ortner, D. R. Yakovlev, M. Bayer, S. Rudin, T. L. Reinecke, S. Fafard, Z. Wasilewski, and A. Forchel
- Coherent state monitoring in quantum dots (4 pages) 201302(R)
Ameenah N. Al-Ahmadi and Sergio E. Ulloa
- Structural features of Ga-rich GaAs(001) surfaces: Scanning tunneling microscopy study (4 pages) 201303(R)
Pavel Kocán, Akihiro Ohtake, and Nobuyuki Koguchi
- Nonadiabatic electron manipulation in quantum dot arrays (4 pages) 201304(R)
Keiji Saito and Yosuke Kayanuma



Copyright 2004 by The American Physical Society

(Continued)



CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 70, NUMBER 20

NOVEMBER 2004-15(II)

Nonmonotonous temperature dependence of the initial decoherence in quantum dots (<i>4 pages</i>)	201305(R)
A. Vagov, V. M. Axt, T. Kuhn, W. Langbein, P. Borri, and U. Woggon	
Coulomb blockade and non-Fermi-liquid behavior in quantum dots (<i>4 pages</i>)	201306(R)
Frithjof B. Anders, Eran Lebanon, and Avraham Schiller	
Competition between spin-orbit interaction and Zeeman coupling in Rashba two-dimensional electron gases (<i>4 pages</i>)	201307(R)
F. E. Meijer, A. F. Morpurgo, T. M. Klapwijk, T. Koga, and J. Nitta	
Quantum-confined Stark shifts of charged exciton complexes in quantum dots (<i>4 pages</i>)	201308(R)
J. J. Finley, M. Sabathil, P. Vogl, G. Abstreiter, R. Oulton, A. I. Tartakovskii, D. J. Mowbray, M. S. Skolnick, S. L. Liew, A. G. Cullis, and M. Hopkinson	
Sum rules for spin Hall conductivity cancellation (<i>4 pages</i>)	201309(R)
Emmanuel I. Rashba	

Surface physics, low-dimensional systems, and related topics

Theoretical study of carbon-coated iron nanowires (<i>4 pages</i>)	201401(R)
Mariana Weissmann, G. García, Miguel Kiwi, and R. Ramírez	
Vlasov simulations of ultrafast electron dynamics and transport in thin metal films (<i>4 pages</i>)	201402(R)
G. Manfredi and P.-A. Hervieux	
Elastic anomaly for SrTiO ₃ thin films grown on Si(001) (<i>4 pages</i>)	201403(R)
F. S. Aguirre-Tostado, A. Herrera-Gómez, J. C. Woicik, R. Droopad, Z. Yu, D. G. Schlom, P. Zschack, E. Karapetrova, P. Pianetta, and C. S. Hellberg	
Double resonance features in the Raman spectrum of carbon nanotubes (<i>4 pages</i>)	201404(R)
M. L. Sanjuán, A. Ansón, and M. T. Martínez	
Influence of the Au(111) reconstruction on the light emission induced by a scanning tunneling microscope (<i>4 pages</i>)	201405(R)
Karen Perronet, Luc Barbier, and Fabrice Charra	
Growth dynamics of pulsed laser deposited Pt nanoparticles on highly oriented pyrolytic graphite substrates (<i>4 pages</i>)	201406(R)
R. Dolbec, E. Irissou, M. Chaker, D. Guay, F. Rosei, and M. A. El Khakani	

ARTICLES

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

Modifications and extensions to Harrison's tight-binding theory (<i>7 pages</i>)	205101
Lei Shi and Dimitrios A. Papaconstantopoulos	
Absolute negative refraction and imaging of unpolarized electromagnetic waves by two-dimensional photonic crystals (<i>6 pages</i>)	205102
Xiangdong Zhang	
Electronic structure of actinide antimonides and tellurides from photoelectron spectroscopy (<i>11 pages</i>)	205103
T. Durakiewicz, J. J. Joyce, G. H. Lander, C. G. Olson, M. T. Butterfield, E. Guzewicz, A. J. Arko, L. Morales, J. Rebizant, K. Mattenberger, and O. Vogt	
First-principles study of wurtzite-structure MnO (<i>8 pages</i>)	205104
Priya Gopal, Nicola A. Spaldin, and Umesh V. Waghmare	

(Continued)

Projection method for rapid <i>ab initio</i> calculations of metals (6 pages)	205105
Abdelouaheb Kenoufi and Janos Polonyi	
Time-domain electromagnetic energy in a frequency-dispersive left-handed medium (7 pages)	205106
Tie Jun Cui and Jin Au Kong	
Effects beyond the random-phase approximation in calculating the interaction between metal films (11 pages)	205107
J. Jung, P. García-González, J. F. Dobson, and R. W. Godby	
Effective model of the electronic Griffiths phase (8 pages)	205108
D. Tanasković, E. Miranda, and V. Dobrosavljević	
Berthelot-type conductivity of porous $\text{Sr}_2\text{CrReO}_6$: Examination of an old empirical relation (5 pages)	205109
B. Fisher, K. B. Chashka, L. Patlagan, and G. M. Reisner	
Nonlinear optical tuning of a two-dimensional silicon photonic crystal (5 pages)	205110
H. W. Tan, H. M. van Driel, S. L. Schweizer, R. B. Wehrspohn, and U. Gösele	
Electronic structure of copper studied by electron momentum spectroscopy (11 pages)	205111
M. Vos, A. S. Kheifets, C. Bowles, C. Chen, E. Weigold, and F. Aryasetiawan	
Strong coupling theory for interacting lattice models (12 pages)	205112
Tudor D. Stanescu and Gabriel Kotliar	
Eu^{3+} luminescence in Eu-doped KMgF_3 crystals investigated by site-selective laser-excitation spectroscopy (8 pages)	205113
Hyo Jin Seo, Taiju Tsuboi, and Kiwan Jang	
Band-structure calculations of the half-metallic ferromagnetism and structural stability of full- and half-Heusler phases (5 pages)	205114
T. Block, M. J. Carey, B. A. Gurney, and O. Jepsen	
Random-phase approximation of core-electron scattering in solids (8 pages)	205115
K. Nuroh	
Electronic structure of paramagnetic V_2O_3 : Strongly correlated metallic and Mott insulating phase (14 pages)	205116
G. Keller, K. Held, V. Eyert, D. Vollhardt, and V. I. Anisimov	
Temperature dependence of the dispersion relation of the transverse plasmon (5 pages)	205117
Taturo Fukuda and Tadashi Toyoda	
Quantum data compression, quantum information generation, and the density-matrix renormalization-group method (7 pages)	205118
Ö. Legeza and J. Sólyom	
One hole in a CuO_2 plane: Resonating-valence-bond-like behavior (26 pages)	205119
M. W. Long and I. B. Styles	
Universal description of granular metals at low temperatures: Granular Fermi liquid (5 pages)	205120
I. S. Beloborodov, A. V. Lopatin, and V. M. Vinokur	
Localized hyperpolarizability approach to the origin of nonlinear optical properties in TeO_2 -based materials (7 pages)	205121
S. Suehara, P. Thomas, A. P. Mirgorodsky, T. Merle-Méjean, J. C. Champarnaud-Mesjard, T. Aizawa, S. Hishita, S. Todoroki, T. Konishi, and S. Inoue	

Anomalous luminescence dynamics of Eu^{3+} in BaFCl microcrystals (9 pages)	205122
X. Y. Chen, W. Zhao, R. E. Cook, and G. K. Liu	
Large- N expansion based on the Hubbard operator path integral representation and its application to the t - J model. II. The case for finite J (9 pages)	205123
Adriana Foussats and Andrés Greco	
Electrical resistance of ballistic-electron transport through a finite disordered Fibonacci chain (5 pages)	205124
Danhong Huang and Danrun Huang	
Spectral negative refraction and focusing analysis of a two-dimensional left-handed photonic crystal lens (5 pages)	205125
K. Guven, K. Aydin, K. B. Alici, C. M. Soukoulis, and E. Ozbay	
Spin-resolved correlation kinetic energy of the spin-polarized electron gas (8 pages)	205126
John F. Dobson, Hung M. Le, and Giovanni Vignale	
Local density functional for the short-range part of the electron-electron interaction (6 pages)	205127
Lorenzo Zecca, Paola Gori-Giorgi, Saverio Moroni, and Giovanni B. Bachelet	
Molecular orbital excitations in cuprates: Resonant inelastic x-ray scattering studies (5 pages)	205128
Young-June Kim, J. P. Hill, G. D. Gu, F. C. Chou, S. Wakimoto, R. J. Birgeneau, Seiki Komiya, Yoichi Ando, N. Motoyama, K. M. Kojima, S. Uchida, D. Casa, and T. Gog	
Anomalous scaling of conductivity in integrable fermion systems (6 pages)	205129
P. Prelovšek, S. El Shawish, X. Zotos, and M. Long	
Semiconductors I: bulk	
Interaction of hydrogen with boron, phosphorus, and sulfur in diamond (12 pages)	205201
E. B. Lombardi, Alison Mainwood, and K. Osuch	
Sampling the diffusion paths of a neutral vacancy in silicon with quantum mechanical calculations (9 pages)	205202
Fedwa El-Mellouhi, Normand Mousseau, and Pablo Ordejón	
Properties and formation mechanism of tetrainterstitial agglomerates in hydrogen-doped silicon (9 pages)	205203
Teimuraz Mchedlidze and Masashi Suesawa	
Theory of singlet exciton yield in light-emitting polymers (8 pages)	205204
William Barford	
Quenching of excitons in doped disordered organic semiconductors (7 pages)	205205
V. I. Arkhipov, E. V. Emelianova, and H. Bässler	
Full organic distributed feedback cavities based on a soluble electroluminescent oligothiophene (5 pages)	205206
Dario Pisignano, Elisa Mele, Luana Persano, Giuseppe Gigli, Paolo Visconti, Roberto Cingolani, Giovanna Barbarella, and Laura Favaretto	
Hydrogen-related photoluminescent centers in SiC (5 pages)	205207
D. Prezzi, T. A. G. Eberlein, R. Jones, B. Hourahine, P. R. Briddon, and S. Öberg	
Ellipsometric study of the electronic structure of $\text{Ga}_{1-x}\text{Mn}_x\text{As}$ and low-temperature GaAs (10 pages)	205208
K. S. Burch, J. Stephens, R. K. Kawakami, D. D. Awschalom, and D. N. Basov	
Deep acceptor states of platinum and iridium in $4H$ -silicon carbide (8 pages)	205209
J. Grillenberger, U. Grossner, B. G. Svensson, F. Albrecht, W. Witthuhn, and R. Sielemann	

Sulfur point defects in crystalline and amorphous silicon (<i>10 pages</i>)	205210
Yina Mo, Martin Z. Bazant, and Efthimios Kaxiras	
Ni-vacancy defect in diamond detected by electron spin resonance (<i>5 pages</i>)	205211
K. Iakoubovskii	
Excitonic splitting in conjugated molecular materials: A quantum mechanical model including interchain interactions and dielectric effects (<i>11 pages</i>)	205212
Benedetta Mennucci, Jacopo Tomasi, and Roberto Cammi	
Electrical transport across an individual magnetic domain wall in (Ga,Mn)As microdevices (<i>7 pages</i>)	205213
Hongxing Tang and Michael L. Roukes	
Evidence of a sulfur-boron-hydrogen complex in GaAs grown by the liquid encapsulation Czochralski technique (<i>5 pages</i>)	205214
W. Ulrici and B. Clerjaud	
Semiconductors II: surfaces, interfaces, microstructures, and related topics	
Spontaneous parametric scattering of microcavity polaritons in momentum space (<i>11 pages</i>)	205301
Wolfgang Langbein	
Local backscattering in the quantum Hall regime (<i>6 pages</i>)	205302
S. Kičín, A. Pioda, T. Ihn, K. Ensslin, D. C. Driscoll, and A. C. Gossard	
Magnetic field effects on organic electrophosphorescence (<i>7 pages</i>)	205303
J. Kalinowski, M. Cocchi, D. Virgili, V. Fattori, and P. Di Marco	
Generation of squeezed states of nanomechanical resonators by reservoir engineering (<i>12 pages</i>)	205304
P. Rabl, A. Shnirman, and P. Zoller	
Single-particle electronic spectra of quantum rings: A comparative study (<i>8 pages</i>)	205305
J. Simonin, C. R. Proetto, Z. Barticevic, and G. Fuster	
Electronic transport through a quantum dot network (<i>5 pages</i>)	205306
August Dorn, Thomas Ihn, Klaus Ensslin, Werner Wegscheider, and Max Bichler	
Growth and characterization of InAs epitaxial layer on GaAs(111)B (<i>4 pages</i>)	205307
H. Wen, Zh. M. Wang, J. L. Shultz, B. L. Liang, and G. J. Salamo	
Electronic properties of hybrid organic-inorganic semiconductors (<i>5 pages</i>)	205308
B. Fluegel, Y. Zhang, A. Mascarenhas, X. Huang, and J. Li	
Landau Fermi-liquid picture of spin density functional theory: Strutinsky approach to quantum dots (<i>15 pages</i>)	205309
Denis Ullmo, Hong Jiang, Weitao Yang, and Harold U. Baranger	
Lateral coupling of In _x Ga _{1-x} As/GaAs quantum dots investigated using differential transmission spectroscopy (<i>5 pages</i>)	205310
K. L. Silverman, R. P. Mirin, and S. T. Cundiff	
Carrier diffusion in low-dimensional semiconductors: A comparison of quantum wells, disordered quantum wells, and quantum dots (<i>12 pages</i>)	205311
A. Fiore, M. Rossetti, B. Alloing, C. Paranthoen, J. X. Chen, L. Geelhaar, and H. Riechert	
Efficient nonlinear room-temperature spin injection from ferromagnets into semiconductors through a modified Schottky barrier (<i>6 pages</i>)	205312
V. V. Osipov and A. M. Bratkovsky	

Direct measurement of the camel-back energy surface in AlAs and its evolution in an electric field (6 pages)	205313
Hyunsik Im, L. E. Bremme, P. C. Klipstein, A. V. Kornilov, H. Beere, D. Ritchie, R. Grey, and G. Hill	
Tensile-strained GaAs quantum wells and quantum dots in a $\text{GaAs}_x\text{Sb}_{1-x}$ matrix (8 pages)	205314
A. A. Toropov, O. G. Lyublinskaya, B. Ya. Meltser, V. A. Solov'ev, A. A. Sitnikova, M. O. Nestoklon, O. V. Rykhova, S. V. Ivanov, K. Thonke, and R. Sauer	
Spin-orbit and electronic interactions in narrow-gap quantum dots (16 pages)	205315
C. F. Destefani, Sergio E. Ulloa, and G. E. Marques	
ac transport through a resonant level between ferromagnetic electrodes (8 pages)	205316
Chi-keung Lui, Baigeng Wang, and Jian Wang	
Diluted magnetic semiconductor quantum dots: An extreme sensitivity of the hole Zeeman splitting on the aspect ratio of the confining potential (6 pages)	205317
F. V. Kyrychenko and J. Kossut	
Exchange energy tuned by asymmetry in artificial molecules (5 pages)	205318
B. Szafran, F. M. Peeters, and S. Bednarek	
Kinetic spin confinement by lateral modulation of the Rashba or Dresselhaus coefficient (4 pages)	205319
I. Vurgaftman and J. R. Meyer	
Single-qubit gates and measurements in the surface acoustic wave quantum computer (12 pages)	205320
S. Furuta, C. H. W. Barnes, and C. J. L. Doran	
Native oxidation of CuGaSe_2 crystals and thin films studied by electron paramagnetic resonance and photoelectron spectroscopy (10 pages)	205321
R. Würz, A. Meeder, D. Fuertes Marrón, Th. Schedel-Niedrig, A. Knop-Gericke, and K. Lips	
Photoluminescence and stimulated emission from microcrystalline CsPbCl_3 films prepared by amorphous-to- crystalline transformation (7 pages)	205322
S. Kondo, K. Suzuki, T. Saito, H. Asada, and H. Nakagawa	
Modified transfer matrix for nanostructures with arbitrary potential profile (16 pages)	205323
S. A. Rakityansky	
Weak localization of the open kicked rotator (8 pages)	205324
J. Tworzydło, A. Tajic, and C. W. J. Beenakker	
Unoccupied Mott-Hubbard state on the $(\sqrt{3} \times \sqrt{3})R30^\circ$ reconstructed $4H\text{-SiC}(0001)$ surface (5 pages)	205325
R. Ostendorf, K. Wulff, C. Benesch, H. Merz, and H. Zacharias	
Ground state of two-dimensional quantum-dot helium in zero magnetic field: Perturbation, diagonalization, and variational theory (8 pages)	205326
Orion Ciftja and A. Anil Kumar	
Evolution of localized electron spin in a nuclear spin environment (9 pages)	205327
Sigurdur I. Erlingsson and Yuli V. Nazarov	
Fano and Breit-Wigner resonances in carrier transport through Datta and Das spin modulators (4 pages)	205328
I. A. Shelykh and N. G. Galkin	
Spin-photon dynamics of quantum dots in two-mode cavities (6 pages)	205329
Florian Meier and David D. Awschalom	

Excitons and biexcitons bound to a positive ion in a bismuth-doped inorganic-organic layered lead iodide semiconductor (6 pages)	205330
Jun-ichi Fujisawa and Teruya Ishihara	
Interplay of Coulomb and nonparabolicity effects in the intersubband absorption of electrons and holes in quantum wells (8 pages)	205331
M. F. Pereira, Jr. and H. Wenzel	
Neutral and charged electron-hole complexes in artificial molecules: Quantum transitions induced by the in-plane magnetic field (9 pages)	205332
Devis Bellucci, Filippo Troiani, Guido Goldoni, and Elisa Molinari	
Electronic correlations in coherent transport through a two quantum dot system (11 pages)	205333
Bogdan R. Buřka and Tomasz Kostyrko	
Current noise in a vibrating quantum dot array (21 pages)	205334
Christian Flindt, Tomáš Novotný, and Antti-Pekka Jauho	
Slowing down of spin relaxation in two-dimensional systems by quantum interference effects (9 pages)	205335
I. S. Lyubinskiy and V. Yu. Kachorovskii	
Impurity center in a semiconductor quantum ring in the presence of a radial electric field (12 pages)	205336
Boris S. Monozon, Mikhail V. Ivanov, and Peter Schmelcher	
Surface energetics and structure of the Ge wetting layer on Si(100) (7 pages)	205337
M. J. Beck, A. van de Walle, and M. Asta	
Geometric phases and quantum entanglement as building blocks for non-Abelian quasiparticle statistics (13 pages)	205338
Ady Stern, Felix von Oppen, and Eros Mariani	
Low-temperature transport through a quantum dot between two superconductor leads (4 pages)	205339
S. Y. Liu and X. L. Lei	
Initial stages of Mn adsorption on Ge(111) (8 pages)	205340
Changgan Zeng, Wenguang Zhu, Steven C. Erwin, Zhenyu Zhang, and Hanno H. Weitering	
Magnetically induced Bragg scattering of electrons in quantum-dot crystals (4 pages)	205341
M. Elhassan, R. Akis, J. P. Bird, D. K. Ferry, T. Ida, and K. Ishibashi	
Parity measurement of one- and two-electron double well systems (14 pages)	205342
T. M. Stace, S. D. Barrett, H-S. Goan, and G. J. Milburn	
Polariton lasers based on semiconductor quantum microspheres (6 pages)	205343
Pierre Bigenwald, Valentin V. Nikolaev, Dmitry Solnyshkov, Alexey Kavokin, Guillaume Malpuech, and Bernard Gil	
Surface physics, low-dimensional systems, and related topics	
Au _N clusters (N=32,33,34,35): Cagelike structures of pure metal atoms (5 pages)	205401
X. Gu, M. Ji, S. H. Wei, and X. G. Gong	
Step effects and coverage dependence of hydrogen atom diffusion on Pt(111) surfaces (7 pages)	205402
C. Z. Zheng, C. K. Yeung, M. M. T. Loy, and Xudong Xiao	
Theory of acoustic surface plasmons (12 pages)	205403
J. M. Pitarke, V. U. Nazarov, V. M. Silkin, E. V. Chulkov, E. Zaremba, and P. M. Echenique	

Stable tetrahedral structure of the silica cluster (SiO ₂) ₁₀ (5 pages)	205404
M. W. Zhao, R. Q. Zhang, and S. T. Lee	
Electronic properties of FeCl ₃ -intercalated single-wall carbon nanotubes (5 pages)	205405
X. Liu, T. Pichler, M. Knupfer, J. Fink, and H. Kataura	
Grazing-incidence x-ray diffraction measurement of the relaxations and elastic step interactions on Cu(211) and Cu(322) (9 pages)	205406
G. Prévot, A. Coati, and Y. Garreau	
Theoretical study of crossed and parallel carbon nanotube junctions and three-dimensional grid structures (9 pages)	205407
S. Dag, R. T. Senger, and S. Ciraci	
Midgap states and generalized supersymmetry in semi-infinite nanowires (10 pages)	205408
Bor-Luen Huang, Shin-Tza Wu, and Chung-Yu Mou	
Tight-binding model for calcium nanoclusters: Structural, electronic, and dynamical properties (10 pages)	205409
Xiao Dong, Guan Ming Wang, and Estela Blaisten-Barojas	
First-principles calculations for the adsorption of water molecules on the Cu(100) surface (5 pages)	205410
Sanwu Wang, Yanzhao Cao, and P. A. Rikvold	
Size-dependent tunneling differential conductance spectra of crystalline Pd nanoparticles (6 pages)	205411
Bing Wang, Kedong Wang, Wei Lu, Jinlong Yang, and J. G. Hou	
Stability of antiphase line defects in nanometer-sized boron nitride cones (6 pages)	205412
Sérgio Azevedo, Mário S. C. Mazzoni, R. W. Nunes, and H. Chacham	
Potential flow of renormalization group in quasi-one-dimensional systems (6 pages)	205413
Wei Chen, Ming-Shyang Chang, Hsiu-Hau Lin, Darwin Chang, and Chung-Yu Mou	
Self-organized formation of regular nanostripes on vicinal surfaces (7 pages)	205414
Yan-Mei Yu and Bang-Gui Liu	
Structural and energetic properties of nickel clusters: $2 \leq N \leq 150$ (15 pages)	205415
Valeri G. Grigoryan and Michael Springborg	
Scaling analysis of electron transport through metal-semiconducting carbon nanotube interfaces: Evolution from the molecular limit to the bulk limit (17 pages)	205416
Yongqiang Xue and Mark A. Ratner	
Decay and dephasing of the Cu(100) image states induced by Cu adatoms (5 pages)	205417
F. E. Olsson, A. G. Borisov, M. Persson, N. Lorente, A. K. Kazansky, and J. P. Gauyacq	
Energetics and structural characterization of C ₆₀ polymerization in BN and carbon nanopeapods (7 pages)	205418
Andrea Trave, Filipe J. Ribeiro, Steven G. Louie, and Marvin L. Cohen	
Increase in thermal stability induced by organic coatings on nanoparticles (5 pages)	205419
L. H. Liang, C. M. Shen, S. X. Du, W. M. Liu, X. C. Xie, and H. J. Gao	
Computational study of electron states in Au chains on NiAl(110) (9 pages)	205420
Mats Persson	
Local phonon density of states in an elastic substrate (6 pages)	205421
Michael R. Geller	

CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 70, NUMBER 20

NOVEMBER 2004-15(II)

Stretching of carbon-carbon bonds in a 0.7 nm diameter carbon nanotube studied by electron diffraction (7 pages)	205422
Kaori Hirahara, Shunji Bandow, Hiromichi Kataura, Mathieu Kociak, and Sumio Iijima	
Flow-induced voltage and current generation in carbon nanotubes (5 pages)	205423
S. Ghosh, A. K. Sood, S. Ramaswamy, and N. Kumar	
Plasmon emission in photoexcited gold nanoparticles (4 pages)	205424
E. Dulkeith, T. Niedereichholz, T. A. Klar, J. Feldmann, G. von Plessen, D. I. Gittins, K. S. Mayya, and F. Caruso	
Disordered carbon nanotube alloys in the effective-medium supercell approximation (6 pages)	205425
Rostam Moradian	
Adsorbed rare-gas layers on Au(111): Shift of the Shockley surface state studied with ultraviolet photoelectron spectroscopy and scanning tunneling spectroscopy (13 pages)	205426
Thomas Andreev, Ingo Barke, and Heinz Hövel	
Structural and electronic properties of Ag-Pd superlattices (8 pages)	205427
Matthieu J. Verstraete, Jacques Dumont, Robert Sporken, R. L. Johnson, Frédéric Wiame, Kristiaan Temst, Johan Swerts, Frédéric Mirabella, Jacques Ghijsen, and Xavier Gonze	
Assignment of the chiralities of double-walled carbon nanotubes using two radial breathing modes (8 pages)	205428
Minggang Xia, Shengli Zhang, Xianjun Zuo, Erhu Zhang, Shumin Zhao, Jian Li, Lei Zhang, Yachao Liu, and Run Liang	
Quasiparticle effects and optical absorption in small fullerene-like GaP clusters (6 pages)	205429
Giuliano Mallocci, Giancarlo Cappellini, Giacomo Mulas, and Guido Satta	
Small-scale effects on buckling of multiwalled carbon nanotubes under axial compression (6 pages)	205430
Y. Q. Zhang, G. R. Liu, and J. S. Wang	
Semiempirical approach to the energetics of interlayer binding in graphite (7 pages)	205431
Masayuki Hasegawa and Kazume Nishidate	
Spontaneous roughening of low-coverage Si(100)-2 × 1:Cl surfaces: Patch formation on submonolayer halogenated surface (4 pages)	205432
Dongxue Chen and John J. Boland	

ERRATA

Publisher's Note: Stability of reduced V ₂ O ₅ (001) surfaces [Phys. Rev. B 70 , 045422 (2004)] (1 page)	209901(E)
M. V. Ganduglia-Pirovano and J. Sauer	
Erratum: Resonant inelastic x-ray scattering at the F 1s photoabsorption edge in LiF: Interplay of excitonic and conduction states, and Stokes' doubling [Phys. Rev. B 70 , 085102 (2004)] (1 page)	209902(E)
A. Kikas, T. Käämbre, A. Saar, K. Kooser, E. Nõmmiste, I. Martinson, V. Kimberg, S. Polyutov, and F. Gel'mukhanov	
Publisher's Note: Single Mott transition in the multiorbital Hubbard model [Phys. Rev. B 70 , 165103 (2004)] (1 page)	209903(E)
A. Liebsch	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 70, NUMBER 20

NOVEMBER 2004-15(II)

Publisher's Note: Native oxidation of CuGaSe₂ crystals and thin films studied by electron paramagnetic resonance and photoelectron spectroscopy [Phys. Rev. B **70**, 205321 (2004)] (*1 page*) 209904(E)

R. Würz, A. Meeder, D. Fuertes Marrón, Th. Schedel-Niedrig, A. Knop-Gericke, and K. Lips

Cumulative Author Index i