

PHYSICAL REVIEW B

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

PERIODICALS

Postmaster send address changes to:
APS Subscription Services
Suite 1N01
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 74, NUMBER 24

CONTENTS

DECEMBER 2006-15(II)

RAPID COMMUNICATIONS

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

- Observation of spin beats at the Rabi frequency in microcavities (*4 pages*) 241101(R)
A. Brunetti, M. Vladimirova, D. Scalbert, M. Nawrocki, A. V. Kavokin, I. A. Shelykh, and J. Bloch
- Metal-insulator transition in Hubbard-like models with random hopping (*4 pages*) 241102(R)
Matthew S. Foster and Andreas W. W. Ludwig
- Electron-phonon coupling and spin-charge separation in one-dimensional Mott insulators (*4 pages*) 241103(R)
H. Matsueda, T. Tohyama, and S. Maekawa
- Metal-insulator transition in $\text{Ca}_{1-x}\text{Na}_x\text{IrO}_3$ with post-perovskite structure (*4 pages*) 241104(R)
K. Ohgushi, H. Gotou, T. Yagi, Y. Kiuchi, F. Sakai, and Y. Ueda
- Double core excitations in LiI: Evidence for multicenter coupling in resonant inelastic soft x-ray scattering spectra (*4 pages*) 241105(R)
Marcus Agåker and Jan-Erik Rubensson

Semiconductors I: bulk

- Evidence for temperature-independent triplet diffusion in a ladder-type conjugated polymer (*4 pages*) 241201(R)
M. Reufer, P. G. Lagoudakis, M. J. Walter, J. M. Lupton, J. Feldmann, and U. Scherf
- Experimental and theoretical investigation of the conduction band edge of $\text{GaN}_x\text{P}_{1-x}$ (*4 pages*) 241202(R)
M. Güngerich, P. J. Klar, W. Heimbrodt, G. Weiser, J. F. Geisz, C. Harris, A. Lindsay, and E. P. O'Reilly

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

- Magnetic properties of Co/GaAs(110) (*4 pages*) 241301(R)
T. L. Monchesky and J. Unguris
- All electrical measurement of spin injection in a magnetic *p-n* junction diode (*4 pages*) 241302(R)
Peifeng Chen, Juergen Moser, Philipp Kotissek, Janusz Sadowski, Marcus Zenger, Dieter Weiss, and Werner Wegscheider
- Enhancement of interactions between magnetic ions in semiconductors due to declustering (*4 pages*) 241303(R)
A. Franceschetti, S. V. Barabash, J. Osorio-Guillen, A. Zunger, and M. van Schilfgaarde
- Optimally designed digitally doped Mn:GaAs studied using *ab initio* local-density approximation (*4 pages*) 241304(R)
J. L. Xu and M. van Schilfgaarde



Copyright 2006 by The American Physical Society

(Continued)



1098-0121(20061215)74:24;1-O

Spin qubits in double quantum dots: Entanglement versus the Kondo effect (<i>4 pages</i>)	241305(R)
A. Ramšak, J. Mravlje, R. Žitko, and J. Bonča	
Surface physics, nanoscale physics, low-dimensional systems	
Molecular quantum well at the $C_{60}/Au(111)$ interface (<i>4 pages</i>)	241401(R)
X.-Y. Zhu, G. Dutton, D. P. Quinn, C. D. Lindstrom, N. E. Schultz, and D. G. Truhlar	
Alteration of superconductivity and radial breathing modes in suspended ropes of carbon nanotubes by organic polymer coatings (<i>4 pages</i>)	241402(R)
M. Ferrier, A. Yu. Kasumov, V. Agache, L. Buchailot, A.-M. Bonnot, C. Naud, V. Bouchiat, R. Deblock, M. Kociak, M. Kobylko, S. Guéron, and H. Bouchiat	
Josephson effect in mesoscopic graphene strips with finite width (<i>4 pages</i>)	241403(R)
Ali G. Moghaddam and Malek Zareyan	

ARTICLES

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

$O(N)$ Krylov-subspace method for large-scale <i>ab initio</i> electronic structure calculations (<i>16 pages</i>)	245101
Taisuke Ozaki	
Optical study of $MgTi_2O_4$: Evidence for an orbital-Peierls state (<i>5 pages</i>)	245102
J. Zhou, G. Li, J. L. Luo, Y. C. Ma, Dan Wu, B. P. Zhu, Z. Tang, J. Shi, and N. L. Wang	
First-principles calculations of hyperfine parameters with the Gaussian and augmented-plane-wave method: Application to radicals embedded in a crystalline environment (<i>8 pages</i>)	245103
R. Declerck, E. Pauwels, V. Van Speybroeck, and M. Waroquier	
Green's function of the Holstein polaron (<i>22 pages</i>)	245104
Glen L. Goodvin, Mona Berciu, and George A. Sawatzky	
Electronic structure and transport properties of double-stranded Fibonacci DNA (<i>10 pages</i>)	245105
Enrique Maciá	
X-ray photoelectron spectroscopy of superconducting $RuSr_2Eu_{1.5}Ce_{0.5}Cu_2O_{10}$ and nonsuperconducting $RuSr_2EuCeCu_2O_{10}$ (<i>7 pages</i>)	245106
U. Manju, V. P. S. Awana, H. Kishan, and D. D. Sarma	
Characterization of two-dimensional fermionic insulating states (<i>18 pages</i>)	245107
Ryuichi Shindou, Ken-Ichiro Imura, and Masao Ogata	
Electron-phonon coupling in iron-doped yttrium aluminum garnet (<i>7 pages</i>)	245108
A. Anedda, C. M. Carbonaro, D. Chiriu, R. Corpino, M. Marceddu, and P. C. Ricci	
Comparison of theoretical and experimental dielectric functions: Electron energy-loss spectroscopy and density-functional calculations on skutterudites (<i>8 pages</i>)	245109
Ø. Prytz, O. M. Løvvik, and J. Taftø	
Tomonaga-Luttinger parameters and spin excitations in the dimerized extended Hubbard model (<i>10 pages</i>) . . .	245110
Satoshi Ejima, Florian Gebhard, and Satoshi Nishimoto	
Valence, spin, and orbital state of Co ions in one-dimensional $Ca_3Co_2O_6$: An x-ray absorption and magnetic circular dichroism study (<i>5 pages</i>)	245111
T. Burnus, Z. Hu, M. W. Haverkort, J. C. Cezar, D. Flahaut, V. Hardy, A. Maignan, N. B. Brookes, A. Tanaka, H. H. Hsieh, H.-J. Lin, C. T. Chen, and L. H. Tjeng	

Nodal-antinodal dichotomy and magic doping fractions in a stripe-ordered antiferromagnet (6 pages)	245112
Mats Granath	
Spin precession and real-time dynamics in the Kondo model: Time-dependent numerical renormalization-group study (22 pages)	245113
Frithjof B. Anders and Avraham Schiller	
Numerical renormalization group approach to Green's functions for quantum impurity models (12 pages)	245114
Robert Peters, Thomas Pruschke, and Frithjof B. Anders	
Theoretical study of ZnO phases using a screened hybrid density functional (7 pages)	245115
Jamal Uddin and Gustavo E. Scuseria	
Strain-induced phase separation in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ thin films (7 pages)	245116
A. Tebano, C. Aruta, P. G. Medaglia, F. Tozzi, G. Balestrino, A. A. Sidorenko, G. Allodi, R. De Renzi, G. Ghiringhelli, C. Dallera, L. Braicovich, and N. B. Brookes	
Performance of the Vignale-Kohn functional in the linear response of metals (13 pages)	245117
J. A. Berger, P. Romaniello, R. van Leeuwen, and P. L. de Boei	
Finite-temperature properties of the triangular lattice t - J model and applications to Na_xCoO_2 (12 pages)	245118
Jan O. Haerter, Michael R. Peterson, and B. Sriram Shastry	
Enhancement of photorefraction in whispering gallery mode resonators (4 pages)	245119
Anatoliy A. Savchenkov, Andrey B. Matsko, Dmitry Strelakov, Vladimir S. Ilchenko, and Lute Maleki	
Local electronic structure in a LiAlO_2 single crystal studied with ^7Li NMR spectroscopy and comparison with quantum chemical calculations (5 pages)	245120
Sylvio Indris, Paul Heitjans, Reinhard Uecker, and Thomas Bredow	
Theoretical study of the electronic properties of $\text{PrM}_2\text{B}_2\text{C}$ ($M=\text{Co}, \text{Ni}, \text{Pt}$) (10 pages)	245121
Donald H. Galvan, A. Durán, A. Posada Amarillas, and R. Escudero	
Theory of resonant inelastic x-ray scattering at the K edge in La_2CuO_4 : Multiple scattering effects (10 pages)	245122
Jun-ichi Igarashi, Takuji Nomura, and Manabu Takahashi	
Class of exactly soluble models of one-dimensional spinless fermions and its application to the Tomonaga-Luttinger Hamiltonian with nonlinear dispersion (12 pages)	245123
A. V. Rozhkov	
Ground-state properties of a large Coulomb-blockaded quantum dot (14 pages)	245124
Eugene B. Kolomeisky, Michael Timmins, and Ryan M. Kalas	
Adequacy of approximations in GW theory (16 pages)	245125
Mark van Schilfgaarde, Takao Kotani, and Sergey V. Faleev	
Theory of stripes in quasi-two-dimensional rare-earth tellurides (7 pages)	245126
Hong Yao, John A. Robertson, Eun-Ah Kim, and Steven A. Kivelson	
Collisions between supercooled excitons in Cu_2O studied by time-resolved Lyman spectroscopy (6 pages)	245127
Takeshi Tayagaki, Andre Mysyrowicz, and Makoto Kuwata-Gonokami	
Valence-skipping compounds as positive- U electronic systems (4 pages)	245128
Walter A. Harrison	

Semiconductors I: bulk

Electrical resistivity and metal-nonmetal transition in <i>n</i> -type doped 4H-SiC (5 pages)	245201
Antonio Ferreira da Silva, Julien Pernot, Sylvie Contreras, Bo E. Sernelius, Clas Persson, and Jean Camassel	
Influence of nitrogen-cluster states on the gyromagnetic factor of electrons in GaAs _{1-x} N _x (5 pages)	245202
G. Pettinari, F. Masia, A. Polimeni, M. Felici, A. Frova, M. Capizzi, A. Lindsay, E. P. O'Reilly, P. J. Klar, W. Stolz, G. Bais, M. Piccin, S. Rubini, F. Martelli, and A. Franciosi	
Diffusion and conversion dynamics for neutral muonium in aluminum nitride (8 pages)	245203
H. N. Bani-Salameh, R. L. Lichti, Y. G. Celebi, and S. F. J. Cox	
<i>Ab initio</i> study of the nonlinear optics of III-V semiconductors in the terahertz regime (9 pages)	245204
Eric Roman, Jonathan R. Yates, Marek Veithen, David Vanderbilt, and Ivo Souza	
Mn incorporation in as-grown and annealed (Ga,Mn)As layers studied by x-ray diffraction and standing-wave fluorescence (9 pages)	245205
V. Holý, Z. Matěj, O. Pacherová, V. Novák, M. Cukr, K. Olejník, and T. Jungwirth	
Transport and recombination through weakly coupled localized spin pairs in semiconductors during coherent spin excitation (5 pages)	245206
V. Rajevac, C. Boehme, C. Michel, A. Gliesche, K. Lips, S. D. Baranovskii, and P. Thomas	
Vibrations and thermal transport in nanocrystalline silicon (11 pages)	245207
Arun Bodapati, Patrick K. Schelling, Simon R. Phillpot, and Pawel Koblinski	
Exact-exchange-based quasiparticle energy calculations for the band gap, effective masses, and deformation potentials of ScN (8 pages)	245208
Abdallah Qteish, Patrick Rinke, Matthias Scheffler, and Jörg Neugebauer	
Pressure-induced phase transformations in the Ba ₈ Si ₄₆ clathrate (6 pages)	245209
L. Yang, Y. M. Ma, T. Iitaka, J. S. Tse, K. Stahl, Y. Ohishi, Y. Wang, R. W. Zhang, J. F. Liu, H.-K. Mao, and J. Z. Jiang	
Generalized transport-band field-effect mobility in disordered organic and inorganic semiconductors (7 pages)	245210
P. Servati, A. Nathan, and G. A. J. Amaratunga	
Triplet exciton energy transfer in polyfluorene doped with heavy metal complexes studied using photoluminescence and photoinduced absorption (8 pages)	245211
H. H. Liao, H. F. Meng, S. F. Horng, W. S. Lee, J. M. Yang, C. C. Liu, J. T. Shy, F. C. Chen, and C. S. Hsu	
Deactivation of nitrogen donors in silicon carbide (11 pages)	245212
F. Schmid, S. A. Reshanov, H. B. Weber, G. Pensl, M. Bockstedte, A. Mattausch, O. Pankratov, T. Ohshima, and H. Itoh	
Quasiparticle energy of semicore <i>d</i> electrons in ZnS: Combined LDA+ <i>U</i> and <i>GW</i> approach (5 pages)	245213
Takashi Miyake, Peihong Zhang, Marvin L. Cohen, and Steven G. Louie	
Quantum coherence of 1s orthoexcitons in Cu ₂ O driven by resonant two-photon excitation (7 pages)	245214
Shunsuke Kono and Nobukata Nagasawa	
Magnitude and crystalline anisotropy of hole magnetization in (Ga,Mn)As (5 pages)	245215
C. Śliwa and T. Dietl	

Influence of excited states of a deep substitutional dopant on majority-carrier concentration in semiconductors (8 pages)	245216
Hideharu Matsuura	
Donor levels for selected n -type dopants in diamond: A computational study of the effect of supercell size (7 pages)	245217
J. P. Goss, P. R. Briddon, and R. J. Eyre	
Energetics of cubic and hexagonal phases in Mn-doped GaN: First-principles pseudopotential calculations (7 pages)	245218
Eun-Ae Choi, Joongoo Kang, and K. J. Chang	
Dynamics of positively charged muonium centers in indium nitride (9 pages)	245219
Y. G. Celebi, R. L. Lichti, B. E. Coss, and S. F. J. Cox	
Semiconductors II: surfaces, interfaces, microstructures, and related topics	
Charging effects and Andreev reflection in a double-junction circuit: A model approach combining rate equations and Green's functions (19 pages)	245301
Ursula Schröter and Elke Scheer	
Magnetic-field dependence of valley splitting in Si quantum wells grown on tilted SiGe substrates (5 pages)	245302
Seungwon Lee and Paul von Allmen	
Anharmonicity and asymmetry of Landau levels for a disordered two-dimensional electron gas (10 pages) ...	245303
Stephane Bonifacie, Christophe Chaubet, Benoit Jouault, and Andre Raymond	
Magnetic and chemical nonuniformity in $\text{Ga}_{1-x}\text{Mn}_x\text{As}$ films as probed by polarized neutron and x-ray reflectometry (7 pages)	245304
B. J. Kirby, J. A. Borchers, J. J. Rhyne, K. V. O'Donovan, S. G. E. te Velthuis, S. Roy, Cecilia Sanchez-Hanke, T. Wojtowicz, X. Liu, W. L. Lim, M. Dobrowolska, and J. K. Furdyna	
Thermodynamic description of the competition between quantum dots and quantum dashes during metalorganic vapor phase epitaxy in the InAs/InP(001) system: Experiment and theory (5 pages)	245305
G. Saint-Girons, A. Michon, I. Sagnes, G. Beaudoin, and G. Patriarche	
Bistability of the nuclear polarization created through optical pumping in $\text{In}_{1-x}\text{Ga}_x\text{As}$ quantum dots (8 pages)	245306
P.-F. Braun, B. Urbaszek, T. Amand, X. Marie, O. Krebs, B. Eble, A. Lemaitre, and P. Voisin	
Experimental and theoretical evidence for a hydrogen stabilized $c(2 \times 2)$ reconstruction of the P-rich InP(001) surface (6 pages)	245307
T. Letzig, F. Willig, P. H. Hahn, and W. G. Schmidt	
Influence of exchange interaction on spin-dependent transport through a single quantum dot doped with a magnetic ion (9 pages)	245308
Fanyao Qu and P. Vasilopoulos	
Intrinsic spin Hall effect in the presence of extrinsic spin-orbit scattering (5 pages)	245309
Wang-Kong Tse and S. Das Sarma	
Microwave-modulated photoluminescence of a two-dimensional electron gas (9 pages)	245310
B. M. Ashkinadze, E. Linder, E. Cohen, and L. N. Pfeiffer	

Ground state, quasihole, a pair of quasihole wave functions, and instability in bilayer quantum Hall systems (8 pages)	245311
Longhua Jiang and Jinwu Ye	
Magnetic field effects on optical and transport properties in InAs/GaAs quantum dots (8 pages)	245312
M. Larsson, E. S. Moskalenko, L. A. Larsson, P. O. Holtz, C. Verdozzi, C.-O. Almbladh, W. V. Schoenfeld, and P. M. Petroff	
Electronic transport through Si nanowires: Role of bulk and surface disorder (11 pages)	245313
Troels Markussen, Riccardo Rurali, Mads Brandbyge, and Antti-Pekka Jauho	
Quenching of the spin Hall effect in ballistic nanojunctions (5 pages)	245314
S. Bellucci and P. Onorato	
Increase of charge-carrier redistribution efficiency in a laterally organized superlattice of coupled quantum dots (10 pages)	245315
C. Cornet, M. Hayne, P. Caroff, C. Levallois, L. Joulaud, E. Homeyer, C. Paranthoen, J. Even, C. Labbé, H. Folliot, V. V. Moshchalkov, and S. Loualiche	
Absence of long-range coherence in the parametric emission of photonic wires (6 pages)	245316
M. Wouters and I. Carusotto	
Efficient method for scattering problems in open billiards: Theory and applications (9 pages)	245317
Gursoy B. Akguc and Thomas H. Seligman	
Gate tunability of stray-field-induced electron spin precession in a GaAs/In _x Ga _{1-x} As quantum well below an interdigitated magnetized Fe grating (5 pages)	245318
L. Meier, G. Salis, C. Ellenberger, E. Gini, and K. Ensslin	
Tunable spin Hall effect by Stern-Gerlach diffraction (5 pages)	245319
Jun-Qiang Lu, X.-G. Zhang, and Sokrates T. Pantelides	
Spin-dependent electronic transport through a porphyrin ring ligating an Fe(II) atom: An <i>ab initio</i> study (9 pages)	245320
Yunqing Chen, Alexander Prociuk, Trilisa Perrine, and Barry D. Dunietz	
Giant Zeeman splitting in manganese-doped ZnSe quantum spheres: Eight-band effective-mass calculations (5 pages)	245321
Yuan-Hui Zhu and Jian-Bai Xia	
Relation between scattering-matrix and Keldysh formalisms for quantum transport driven by time-periodic fields (13 pages)	245322
Liliana Arrachea and Michael Moskalets	
Anisotropic magneto-optical effects in one-dimensional diluted magnetic semiconductors (7 pages)	245323
Yukihiro Harada, Takashi Kita, Osamu Wada, and Hiroaki Ando	
Optically switchable mirrors for surface plasmon polaritons propagating on semiconductor surfaces (6 pages)	245324
J. Gómez Rivas, J. A. Sánchez-Gil, M. Kuttge, P. Haring Bolivar, and H. Kurz	
Study of two-subband population in Fe-doped Al _x Ga _{1-x} N/GaN heterostructures by persistent photoconductivity effect (5 pages)	245325
Ikai Lo, J. K. Tsai, M. H. Gau, Y. L. Chen, Z. J. Chang, W. T. Wang, J. C. Chiang, K. R. Wang, Chun-Nan Chen, T. Aggerstam, and S. Lourdudoss	
Multiply charged excitons in vertically coupled quantum dots (6 pages)	245326
E. Anisimovas and F. M. Peeters	

Magnetoconductance oscillations in quasiballistic multimode nanowires (10 pages)	245327
Yaroslav Tserkovnyak and Bertrand I. Halperin	
Surface reconstructions and atomic ordering in $\text{In}_x\text{Ga}_{1-x}\text{As}(001)$ films: A density-functional theory study (11 pages)	245328
Aparna Chakrabarti, Peter Kratzer, and Matthias Scheffler	
Weak localization in arrays of metallic quantum dots: Combined scattering matrix formalism and nonlinear σ model (13 pages)	245329
Dmitri S. Golubev and Andrei D. Zaikin	
Ferromagnetic resonance study of GdN thin films with bulk and extended lattice constants (7 pages)	245330
K. Khazen, H. J. von Bardeleben, J. L. Cantin, A. Bittar, S. Granville, H. J. Trodahl, and B. J. Ruck	
Effects of size and shape on electronic states of quantum dots (10 pages)	245331
C. Y. Ngo, S. F. Yoon, W. J. Fan, and S. J. Chua	
Composition and strain dependence of the piezoelectric coefficients in $\text{In}_x\text{Ga}_{1-x}\text{As}$ alloys (7 pages)	245332
M. A. Migliorato, D. Powell, A. G. Cullis, T. Hammerschmidt, and G. P. Srivastava	
Diffusive magnetotransport in a two-dimensional electron gas in the presence of Rashba spin-orbit interaction (9 pages)	245333
S. G. Novokshonov and A. G. Groshev	
Surface physics, nanoscale physics, low-dimensional systems	
Photon-assisted shot noise in the mesoscopic system with a toroidal carbon nanotube coupled to normal-metal leads perturbed by ac fields (11 pages)	245401
Hong-Kang Zhao and Jian Wang	
Size-dependent electronic and optical properties of GaN nanotubes studied using LDA calculations (4 pages)	245402
B. Xu and B. C. Pan	
Refining the model of light diffraction from a subwavelength slit surrounded by grooves on a metallic film (7 pages)	245403
Changtao Wang, Chunlei Du, and Xiangang Luo	
Elastic quantum transport calculations for molecular nanodevices using plane waves (10 pages)	245404
A. Garcia-Lekue and Lin-Wang Wang	
<i>Ab initio</i> study of the structural, electronic, and optical properties of ultrathin lead nanowires (12 pages)	245405
B. K. Agrawal, V. Singh, R. Srivastava, and S. Agrawal	
Structural determination of the Bi(110) semimetal surface by LEED analysis and <i>ab initio</i> calculations (8 pages)	245406
J. Sun, A. Mikkelsen, M. Fuglsang Jensen, Y. M. Koroteev, G. Bihlmayer, E. V. Chulkov, D. L. Adams, Ph. Hofmann, and K. Pohl	
Monochromatic polarized coherent emitter enhanced by surface plasmons and a cavity resonance (7 pages)	245407
A. Battula and S. C. Chen	
Monte Carlo study of variations in the surface sensitivity of energy-resolved x-ray absorption spectra from Ni/NiO thin-film bilayers (8 pages)	245408
Brian Abbey, John D. Lipp, Zoe H. Barber, and Trevor Rayment	

Water adsorption on a NaCl (001) surface: A density functional theory study (10 pages)	245409
Yong Yang, Sheng Meng, and E. G. Wang	
Fractal-mound growth of pentacene thin films (5 pages)	245410
Serkan Zorba, Yonathan Shapir, and Yongli Gao	
Vacancy defects and the formation of local haeckelite structures in graphene from tight-binding molecular dynamics (5 pages)	245411
Gun-Do Lee, C. Z. Wang, Euijoon Yoon, Nong-Moon Hwang, and K. M. Ho	
Geometry, electronic properties, and thermodynamics of pure and Al-doped Li clusters (6 pages)	245412
Mal-Soon Lee, S. Gowtham, Haiying He, Kah-Chun Lau, Lin Pan, and D. G. Kanhere	
Thickness of graphene and single-wall carbon nanotubes (9 pages)	245413
Y. Huang, J. Wu, and K. C. Hwang	
Stability and symmetry breaking in metal nanowires: The nanoscale free-electron model (13 pages)	245414
D. F. Urban, J. Bürki, C. A. Stafford, and Hermann Grabert	
Localized and delocalized plasmons in metallic nanovoids (12 pages)	245415
T. A. Kelf, Y. Sugawara, R. M. Cole, J. J. Baumberg, M. E. Abdelsalam, S. Cintra, S. Mahajan, A. E. Russell, and P. N. Bartlett	
Structural and mechanical properties of single-wall carbon nanotube fibers (8 pages)	245416
V. Pichot, S. Badaire, P. A. Albouy, C. Zakri, P. Poulin, and P. Launois	
Band-gap unification of partially Si-substituted single-wall carbon nanotubes (8 pages)	245417
Pavel V. Avramov, Pavel B. Sorokin, Alexander S. Fedorov, Dmitri G. Fedorov, and Yoshihito Maeda	
Crystal-encapsulation-induced band-structure change in single-walled carbon nanotubes: Photoluminescence and Raman spectra (5 pages)	245418
Lain-Jong Li, Tsung-Wu Lin, J. Doig, I. B. Mortimer, J. G. Wiltshire, R. A. Taylor, J. Sloan, M. L. H. Green, and R. J. Nicholas	
Linear optical properties of zigzag single-walled BN nanotube ensembles from a model calculation (10 pages)	245419
Vl. A. Margulis, E. A. Gaiduk, E. E. Muryumin, O. V. Boyarkina, and L. V. Fomina	
Energetics, structure, and long-range interaction of vacancy-type defects in carbon nanotubes: Atomistic simulations (5 pages)	245420
J. Kotakoski, A. V. Krashennnikov, and K. Nordlund	
First-principles study of the structure of methanethiolate on Ag(111) (8 pages)	245421
Guo-min He	
Tuning the optical response of nanocylinder arrays: An analytical study (5 pages)	245422
Marine Laroche, Silvia Albaladejo, Raquel Gómez-Medina, and Juan José Sáenz	
Kinetic Monte Carlo simulations of oscillatory shape evolution for electromigration-driven islands (7 pages)	245423
Marko Rusanen, Philipp Kuhn, and Joachim Krug	
Density functional calculation of the geometric and electronic structure of a (1 × 1) and a (1 × 3) supported gold system: Au/TiO ₃ /Mo(112) (11 pages)	245424
S. Yang, J. M. Phillips, and L. Ouyang	

CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 74, NUMBER 24

DECEMBER 2006-15(II)

Controlled anisotropic deformation of Ag nanoparticles by Si ion irradiation (<i>6 pages</i>)	245425
A. Oliver, J. A. Reyes-Esqueda, J. C. Cheang-Wong, C. E. Román-Velázquez, A. Crespo-Sosa, L. Rodríguez-Fernández, J. A. Seman, and Cecilia Noguez	
Site-specific force-distance characteristics on NaCl(001): Measurements versus atomistic simulations (<i>9 pages</i>)	245426
M. A. Lantz, R. Hoffmann, A. S. Foster, A. Baratoff, H. J. Hug, H. R. Hidber, and H.-J. Güntherodt	
Ground state properties of the one-dimensional Coulomb gas using the lattice regularized diffusion Monte Carlo method (<i>15 pages</i>)	245427
Michele Casula, Sandro Sorella, and Gaetano Senatore	
Nonlinear stick-spiral model for predicting mechanical behavior of single-walled carbon nanotubes (<i>13 pages</i>)	245428
Jingyan Geng and Tienchong Chang	
Spin-dependent transport through a single-walled carbon nanotube coupled to a ferromagnetic and a nonmagnetic metal electrode (<i>5 pages</i>)	245429
L. W. Liu, J. H. Fang, L. Lu, H. F. Yang, A. Z. Jin, and C. Z. Gu	

COMMENTS

Comment on “Magnetic quantum oscillations of the conductivity in layered conductors” (<i>4 pages</i>)	247101
T. Champel and V. P. Mineev	

ERRATA

Publisher’s Note: Electronic structure and optical properties of layered perovskites Sr_2MO_4 ($M=\text{Ti, V, Cr, and Mn}$): An <i>ab initio</i> study [Phys. Rev. B 74 , 205112 (2006)] (<i>1 page</i>)	249901(E)
Hongming Weng, Y. Kawazoe, Xiangang Wan, and Jinming Dong	
Erratum: Tunneling in fractional quantum Hall line junctions [Phys. Rev. B 72 , 085318 (2005)] (<i>1 page</i>)	249902(E)
M. Aranzana, N. Regnault, and Th. Jolicœur	
Erratum: Relative stability of negative and positive trions in model symmetric quantum wires [Phys. Rev. B 71 , 235305 (2005)] (<i>1 page</i>)	249903(E)
B. Szafran, T. Chwiej, F. M. Peeters, S. Bednarek, and J. Adamowski	