

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 77, NUMBER 15

CONTENTS

APRIL 2008-15(I)

EDITORIALS AND ANNOUNCEMENTS

Announcement: PRB Editors' Suggestions (*1 page*) 150001

BRIEF REPORTS

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

Gap opening with ordering in $\text{PrFe}_4\text{P}_{12}$ studied by local tunneling spectroscopy (*4 pages*) 153101
H. Suderow, K. Behnia, I. Guillamon, V. Crespo, S. Vieira, D. Kikuchi, Y. Aoki, H. Sugawara, and
H. Sato

Semiconductors I: bulk

Ab initio studies of structural and electronic properties of the crystalline $\text{Ge}_2\text{Sb}_2\text{Te}_5$ (*4 pages*) 153201
Geunsik Lee and Seung-Hoon Jhi

Vibrational fine structures revealed by the real-time vibrational phase and amplitude in MEH-PPV using few
cycle pulses (*4 pages*) 153202
Jun Zhang, Zhuan Wang, and Takayoshi Kobayashi

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

Single-parameter nonadiabatic quantized charge pumping (*4 pages*) 153301
B. Kaestner, V. Kashcheyevs, S. Amakawa, M. D. Blumenthal, L. Li, T. J. B. M. Janssen, G. Hein,
K. Pierz, T. Weimann, U. Siegner, and H. W. Schumacher

Evidence for nonadiabatic electron-phonon intraband scattering in self-assembled quantum dots (*4 pages*) 153302
Stefan Menzel, Evgeny A. Zibik, Pantelis Aivaliotis, John W. Cockburn, Luke R. Wilson, and
Matthew J. Steer

Anisotropic optical emission of single CdSe/CdS tetrapod heterostructures: Evidence for a wavefunction
symmetry breaking (*4 pages*) 153303
C. Mauser, T. Limmer, E. Da Como, K. Becker, A. L. Rogach, J. Feldmann, and D. V. Talapin

Lasing of donor-bound excitons in ZnSe microdisks (*4 pages*) 153304
A. Pawlis, M. Panfilova, D. J. As, K. Lischka, K. Sanaka, T. D. Ladd, and Y. Yamamoto

Controlling the surface chirality of Si(110) (*3 pages*) 153305
Yoichi Yamada, Antoine Girard, Hidehito Asaoka, Hiroyuki Yamamoto, and Shin-ichi Shamoto



Copyright 2008 by The American Physical Society



1098-0121(20080415)77:15;1-G

(Continued)

 The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 150001 (2008).

Surface optical phonons as a probe of organic ligands on ZnO nanoparticles: An investigation using a dielectric continuum model and Raman spectrometry (<i>4 pages</i>)	153306
P.-M. Chassaing, F. Demangeot, V. Paillard, A. Zwick, N. Combe, C. Pagès, M. L. Kahn, A. Maisonnat, and B. Chaudret	
Generation and measurement of nonequilibrium spin currents in two-terminal systems (<i>4 pages</i>)	153307
T. P. Pareek and A. M. Jayannavar	
Suppression of competing tunneling processes in thermally-activated carrier emission on self-assembled InAs quantum dots (<i>4 pages</i>)	153308
A. Schramm, S. Schulz, Ch. Heyn, and W. Hansen	
Coherence of terahertz emission from photoexcited electron-hole plasma: Hydrodynamic model and Monte Carlo simulations (<i>4 pages</i>)	153309
A. Reklaitis	
Surface physics, nanoscale physics, low-dimensional systems	
Lead-molecule coupling effects on the distortion-dependent conductance of carbon nanotubes (<i>4 pages</i>)	153401
Felipe A. Bulat, San-Huang Ke, Weitao Yang, and Luise Couchman	
Fine tuning the charge transfer in carbon nanotubes via the interconversion of encapsulated molecules (<i>4 pages</i>)	153402
H. Shiozawa, T. Pichler, C. Kramberger, A. Grüneis, M. Knupfer, B. Büchner, V. Zólyomi, J. Koltai, J. Kürti, D. Batchelor, and H. Kataura	
Statistics of orbital entanglement production in quantum-chaotic dots (<i>4 pages</i>)	153403
Victor A. Gopar and Diego Frustaglia	
Conditions for organized nanoring growth using kinetic Monte Carlo simulations (<i>4 pages</i>)	153404
F. Dumont, F. Picaud, C. Ramseyer, and C. Girardet	
Measurement of radial deformation of single-wall carbon nanotubes induced by intertube van der Waals forces (<i>4 pages</i>)	153405
Y. Y. Jiang, W. Zhou, T. Kim, Y. Huang, and J. M. Zuo	
Transport properties of single vacancies in nanotubes (<i>4 pages</i>)	153406
A. R. Rocha, J. E. Padilha, A. Fazzio, and A. J. R. da Silva	
Optical polarizer made of uniaxially aligned short single-wall carbon nanotubes embedded in a polymer film (<i>4 pages</i>)	153407
Satoru Shoji, Hidemasa Suzuki, Remo Proietti Zaccaria, Zouheir Sekkat, and Satoshi Kawata	
Manipulation of benzene on Cu(110) by dynamic force microscopy: An <i>ab initio</i> study (<i>4 pages</i>)	153408
N. Atodiresei, V. Caciuc, S. Blügel, and H. Hölscher	
Honeycomb chain structure of the Au/Si(111)-(5×2) surface reconstruction: A first-principles study (<i>4 pages</i>)	153409
Feng-Chuan Chuang, Chia-Hsiu Hsu, Cai-Zhuang Wang, and Kai-Ming Ho	
Quantum well and resonance-band split off in a K monolayer on Cu(111) (<i>4 pages</i>)	153410
F. Schiller, M. Corso, M. Urdanpilleta, T. Ohta, A. Bostwick, J. L. McChesney, E. Rotenberg, and J. E. Ortega	
Suppression of spin polarization in graphene nanoribbons by edge defects and impurities (<i>4 pages</i>)	153411
Bing Huang, Feng Liu, Jian Wu, Bing-Lin Gu, and Wenhui Duan	

(Continued)

Looking underneath fullerenes on Au(110): Formation of dimples in the substrate (<i>4 pages</i>)	153412
M. Hinterstein, X. Torrelles, R. Felici, J. Rius, M. Huang, S. Fabris, H. Fuess, and M. Pedio	

ARTICLES

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

Hybrid exchange-correlation functionals applied to hyperfine interactions at lanthanide and actinide impurities in Fe (<i>13 pages</i>)	155101
D. Torumba, P. Novák, and S. Cottenier	
Sign structure of the t - J model (<i>5 pages</i>)	155102
K. Wu, Z. Y. Weng, and J. Zaanen	
Fractional periodicity and magnetism of extended quantum rings (<i>9 pages</i>)	155103
Y. Hancock, J. Suorsa, E. Tölö, and A. Harju	
γ and β cerium: LDA+ U calculations of ground-state parameters (<i>10 pages</i>)	155104
B. Amadon, F. Jollet, and M. Torrent	
Quantum criticality of U(1) gauge theories with fermionic and bosonic matter in two spatial dimensions (<i>14 pages</i>)	155105
Ribhu K. Kaul and Subir Sachdev	
Self-interaction correction with Wannier functions (<i>11 pages</i>)	155106
Massimiliano Stengel and Nicola A. Spaldin	
Indium-oxide polymorphs from first principles: Quasiparticle electronic states (<i>10 pages</i>)	155107
F. Fuchs and F. Bechstedt	
Coarse-grained density functional theories for metallic alloys: Generalized coherent-potential approximations and charge-excess functional theory (<i>19 pages</i>)	155108
Ezio Bruno, Francesco Mammano, Antonino Fiorino, and Emanuela V. Morabito	
Embedded-cluster self-consistent partial-wave method: Extending the spatial scale of electronic structure calculations (<i>12 pages</i>)	155109
Frank W. Averill and Gayle S. Painter	
Extended Hartree-Fock method based on pair density functional theory (<i>8 pages</i>)	155110
Balázs Hetényi and Andreas W. Hauser	
Entanglement, fidelity, and topological entropy in a quantum phase transition to topological order (<i>6 pages</i>)	155111
A. Hamma, W. Zhang, S. Haas, and D. A. Lidar	
Another mechanism for the insulator-metal transition observed in Mott insulators (<i>6 pages</i>)	155112
Alexander G. Gavriliuk, Viktor V. Struzhkin, Igor S. Lyubutin, Sergey G. Ovchinnikov, Michael Y. Hu, and Paul Chow	
Electronic structure and bulk properties of the single-crystalline paramagnet URuGa (<i>11 pages</i>)	155113
M. Samsel-Czekala, E. Talik, R. Troć, and J. Stępień-Damm	
GW quasiparticle corrections to the LDA+ U /GGA+ U electronic structure of bcc hydrogen (<i>4 pages</i>)	155114
Emmanouil Kioupakis, Peihong Zhang, Marvin L. Cohen, and Steven G. Louie	
On-site interband excitations in resonant inelastic x-ray scattering from Cu ₂ O (<i>10 pages</i>)	155115
J. P. Hu, D. J. Payne, R. G. Egdel, P.-A. Glans, T. Learmonth, K. E. Smith, J. Guo, and N. M. Harrison	

(Continued)

Bootstrap approximations in contractor renormalization (8 pages)	155116
M. Stewart Siu and Marvin Weinstein	
Fluctuating charge-density waves in the Hubbard model (7 pages)	155117
Alexei Sherman and Michael Schreiber	
Optical anisotropy and electronic structures of CdMoO ₄ and CdWO ₄ crystals: Polarized reflection measurements, x-ray photoelectron spectroscopy, and electronic structure calculations (7 pages)	155118
Masami Fujita, Minoru Itoh, Tsuyoshi Katagiri, Daisuke Iri, Mamoru Kitaura, and Vitalii B. Mikhailik	
Modeling elastic and photoassisted transport in organic molecular wires: Length dependence and current-voltage characteristics (14 pages)	155119
J. K. Viljas, F. Pauly, and J. C. Cuevas	
Theoretical study of the electronic states of hollandite vanadate K ₂ V ₈ O ₁₆ (6 pages)	155120
S. Horiuchi, T. Shirakawa, and Y. Ohta	
Insulator-to-metal transition in (R,Ca)VO ₃ (8 pages)	155121
M. H. Sage, G. R. Blake, and T. T. M. Palstra	
Upconversion-induced delayed fluorescence in multicomponent organic systems: Role of Dexter energy transfer (4 pages)	155122
A. Monguzzi, R. Tubino, and F. Meinardi	
Anomalies in transition metal conductivity: Strong evidence for Fermi-velocity dominance (5 pages)	155123
V. Meded, T. Dziekan, S. Mirbt, P. Zahn, and S. Shallcross	
Effects of crystal structure on Co-L _{2,3} x-ray absorption near-edge structure and electron-energy-loss near-edge structure of trivalent cobalt oxides (9 pages)	155124
Yu Kumagai, Hidekazu Ikeno, Fumiyasu Oba, Katsuyuki Matsunaga, and Isao Tanaka	
Controlled compositional disorder in Er ³⁺ :Y ₂ SiO ₅ provides a wide-bandwidth spectral hole burning material at 1.5 μm (6 pages)	155125
Thomas Böttger, C. W. Thiel, R. L. Cone, and Y. Sun	
Hard-Sphere variational approach using an <i>ab initio</i> molecular dynamics code (10 pages)	155126
Gérald Faussurier, Christophe Blancard, and Pier Luigi Silvestrelli	
Phase diagram for bilayer quantum Hall effect at total filling ν _T =5 (9 pages)	155127
Chuntai Shi, Shivakumar Jolad, Nicolas Regnault, and Jainendra K. Jain	
Hybridization effects in CeCoIn ₅ observed by angle-resolved photoemission (7 pages)	155128
A. Koitzsch, S. V. Borisenko, D. Inosov, J. Geck, V. B. Zabolotnyy, H. Shiozawa, M. Knupfer, J. Fink, B. Büchner, E. D. Bauer, J. L. Sarrao, and R. Follath	
Ferromagnetism and spin transitions in prussian blue: A solid-state hybrid functional study (13 pages)	155129
Derek S. Middlemiss and Chick C. Wilson	
Hartree-Fock study of electronic ferroelectricity in the Falicov-Kimball model with <i>f-f</i> hopping (7 pages)	155130
Pavol Farkašovský	
Direct observation of charge-density waves in Ho ₅ Ir ₄ Si ₁₀ (5 pages)	155131
C. M. Tseng, C. H. Chen, and H. D. Yang	
Full-potential all-electron positron lifetime calculations: Assessment of local enhancement factors (5 pages)	155132
H. Takenaka and D. J. Singh	

(Continued)

Semiconductors I: bulk

First-principles study of transition metal impurities in Si (8 pages)	155201
Z. Z. Zhang, B. Partoens, Kai Chang, and F. M. Peeters	
Density-functional study of bulk silicon lightly doped with manganese (7 pages)	155202
Bhagawan R. Sahu, Sanjay K. Banerjee, and Leonard Kleinman	
Planar Hall effect and uniaxial in-plane magnetic anisotropy in Mn δ -doped GaAs/ <i>p</i> -AlGaAs heterostructures (8 pages)	155203
A. M. Nazmul, H. T. Lin, S. N. Tran, S. Ohya, and M. Tanaka	
Point defects in pure amorphous silicon and their role in structural relaxation: A tight-binding molecular-dynamics study (6 pages)	155204
Xavier Urli, Cristiano L. Dias, Laurent J. Lewis, and Sjoerd Roorda	
Origin of the hot phonon effect in group-III nitrides (6 pages)	155205
G. P. Srivastava	
 <i>Ab initio</i> supercell calculations on nitrogen-vacancy center in diamond: Electronic structure and hyperfine tensors (12 pages)	155206
Adam Gali, Maria Fyta, and Efthimios Kaxiras	
Microstructure, magnetic, and spin-dependent transport properties of (Zn,Cr)Te films fabricated by magnetron sputtering (7 pages)	155207
W. G. Wang, K. J. Yee, D. H. Kim, K. J. Han, X. R. Wang, C. Ni, T. Moriyama, A. Mathew, R. Opila, T. Zhu, and John Q. Xiao	
Resonant Raman-active localized vibrational modes in $\text{Al}_y\text{Ga}_{1-y}\text{N}_x\text{As}_{1-x}$ alloys: Experiment and first-principles calculations (6 pages)	155208
A. M. Teweldeberhan, G. Stenuit, S. Fahy, E. Gallardo, S. Lazić, J. M. Calleja, J. Miguel-Sánchez, M. Montes, A. Hierro, R. Gargallo-Caballero, A. Guzmán, and E. Muñoz	
Copper dihydrogen complex in ZnO (10 pages)	155209
E. V. Lavrov, J. Weber, and F. Börrnert	
Ultrasonic investigation of $\text{ZnSe}:\text{V}^{2+}$ and $\text{ZnSe}:\text{Mn}^{2+}$: Lattice softening and low-temperature relaxation in crystals with orbitally degenerate states (6 pages)	155210
V. V. Gudkov, A. T. Lonchakov, V. I. Sokolov, I. V. Zhevstovskikh, and V. T. Surikov	
Electronic surface error in the Si interstitial formation energy (7 pages)	155211
Ann E. Mattsson, Ryan R. Wixom, and Rickard Armiento	
Exciton-spin dephasing and relaxation due to symmetry breaking in two-band bulk semiconductors (6 pages)	155212
M. Gallart, S. Cronenberger, C. Brimont, B. Hönerlage, and P. Gilliot	
Role of strain and properties of N clusters at the onset of the alloy limit in $\text{GaAs}_{1-x}\text{N}_x$ (8 pages)	155213
A. Polimeni, F. Masia, G. Pettinari, R. Trotta, M. Felici, M. Capizzi, A. Lindsay, E. P. O'Reilly, T. Niebling, W. Stolz, and P. J. Klar	
Optical absorption and electron paramagnetic resonance of the E'_α center in amorphous silicon dioxide (5 pages)	155214
G. Buscarino, R. Boscaino, S. Agnello, and F. M. Gelardi	

(Continued)

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

Krylov subspace method for evaluating the self-energy matrices in electron transport calculations (12 pages)	155301
Hans Henrik B. Sørensen, Per Christian Hansen, Dan Erik Petersen, Stig Skelboe, and Kurt Stokbro	
Model of valley interference effects on a donor electron close to a Si/SiO ₂ interface (6 pages)	155302
M. J. Calderón, Belita Koiller, and S. Das Sarma	
Interaction, growth, and ordering of epitaxial graphene on SiC{0001} surfaces: A comparative photoelectron spectroscopy study (10 pages)	155303
K. V. Emtsev, F. Speck, Th. Seyller, L. Ley, and J. D. Riley	
Understanding spin transport from motion in SU(2) × U(1) fields (6 pages)	155304
Pei-Qing Jin and You-Quan Li	
Spin-conserving scattering of holes by magnetic ions in semimagnetic quantum wells (7 pages)	155305
Elena Tsitsishvili and Heinz Kalt	
Pathways of bond topology transitions at the interface of silicon nanocrystals and amorphous silica matrix (5 pages)	155306
D. E. Yılmaz, C. Bulutay, and T. Çağın	
Fano resonances in the conductance of quantum dots with mixed dynamics (9 pages)	155307
Michel Mendoza, Peter A. Schulz, Raúl O. Vallejos, and Caio H. Lewenkopf	
Quantum Hall system in Tao-Thouless limit (23 pages)	155308
E. J. Bergholtz and A. Karlhede	
Confinement properties of a Ga _{0.25} In _{0.75} As/InP quantum point contact (5 pages)	155309
T. P. Martin, C. A. Marlow, L. Samuelson, A. R. Hamilton, H. Linke, and R. P. Taylor	
Aharonov-Bohm ring with a side-coupled atomic cluster: Magnetotransport and the selective switching effect (6 pages)	155310
Supriya Jana and Arunava Chakrabarti	
Differential reflectance and second-harmonic generation of the Si/SiO ₂ interface from first principles (7 pages)	155311
V. I. Gavrilenko	
Density-functional study of tilt-angle and temperature-dependent conductance in biphenyl dithiol single-molecule junctions (9 pages)	155312
F. Pauly, J. K. Viljas, J. C. Cuevas, and Gerd Schön	
Scanning tunneling spectroscopy of cleaved InAs/GaAs quantum dots at low temperatures (6 pages)	155313
A. Urbieto, B. Grandier, J. P. Nys, D. Deresmes, D. Stiévenard, A. Lemaître, G. Patriarche, and Y. M. Niquet	
Optical properties and growth mechanism of multiple type-II ZnTe/ZnSe quantum dots grown by migration-enhanced epitaxy (6 pages)	155314
Y. Gong, W. MacDonald, G. F. Neumark, M. C. Tamargo, and Igor L. Kuskovsky	
Temperature dependence of persistent spin currents in a spin-orbit-coupled electron gas: A density-matrix approach (10 pages)	155315
K. Bencheikh and G. Vignale	

(Continued)

<i>Ab initio</i> study of atomic structure and Schottky barrier height at the GaAs/Ni _{0.5} Pt _{0.5} Ge interface (7 pages)	155316
Manish K. Niranjana, Leonard Kleinman, and Alexander A. Demkov	
Theory of Bose-Einstein condensation and superfluidity of two-dimensional polaritons in an in-plane harmonic potential (6 pages)	155317
Oleg L. Berman, Yurii E. Lozovik, and David W. Snoke	
Aharonov-Bohm-type oscillations in antidot lattices in the quantum Hall regime (7 pages)	155318
Masanori Kato, Akira Endo, Shingo Katsumoto, and Yasuhiro Iye	
Quantum pumping of electrons by a moving modulated potential (8 pages)	155319
Markku Jääskeläinen, Frank Corvino, Christopher P. Search, and Vassilios Fessatidis	
Multichannel architecture for electronic quantum Hall interferometry (5 pages)	155320
Vittorio Giovannetti, Fabio Taddei, Diego Frustaglia, and Rosario Fazio	
Quantum model of microcavity intersubband electroluminescent devices (10 pages)	155321
Simone De Liberato and Cristiano Ciuti	
Effect of uniaxial stress on the polarization of light emitted from GaN/AlN quantum dots grown on Si(111) (9 pages)	155322
O. Moshe, D. H. Rich, B. Damilano, and J. Massies	
8-band k.p modeling of the quantum confined Stark effect in Ge quantum wells on Si substrates (7 pages)	155323
D. J. Paul	
Modulation of bilayer quantum Hall states by tilted-field-induced subband-Landau-level coupling (7 pages)	155324
N. Kumada, K. Iwata, K. Tagashira, Y. Shimoda, K. Muraki, Y. Hirayama, and A. Sawada	
Exciton polariton kinematic interaction in crystalline organic microcavities (12 pages)	155325
Marina Litinskaya	
Ga-assisted catalyst-free growth mechanism of GaAs nanowires by molecular beam epitaxy (5 pages)	155326
C. Colombo, D. Spirkoska, M. Frimmer, G. Abstreiter, and A. Fontcuberta i Morral	
Theoretical study of the effect of nonlinear piezoelectricity on the pressure coefficient of the light emission in (111)-oriented InGaAs/GaAs quantum wells (9 pages)	155327
S. P. Łepkowski	
Electric field effect on electron spin splitting in SiGe/Si quantum wells (8 pages)	155328
M. O. Nestoklon, E. L. Ivchenko, J.-M. Jancu, and P. Voisin	
Surface physics, nanoscale physics, low-dimensional systems	
Atomic configuration and mechanical and electrical properties of stable gold wires of single-atom width (11 pages)	155401
Tokushi Kizuka	
Effects of self-interaction corrections on the transport properties of phenyl-based molecular junctions (12 pages)	155402
C. Toher and S. Sanvito	

(Continued)

Validity of Yubero-Tougaard theory to quantitatively determine the dielectric properties of surface nanofilms (11 pages)	155403
Shaaker Hajati, Oleksandr Romanyuk, Josef Zemek, and Sven Tougaard	
☞ Inelastic light scattering study of the $\nu=1$ quantum Hall ferromagnet (7 pages)	155404
A. S. Zhuravlev, A. B. Van'kov, L. V. Kulik, I. V. Kukushkin, V. E. Kirpichev, J. H. Smet, K. v. Klitzing, V. Umansky, and W. Wegscheider	
Thermal stability, phase segregation, and sublimation of cesium fulleride thin films (11 pages)	155405
Daniel Löffler, Patrick Weis, Sharali Malik, Artur Böttcher, and Manfred M. Kappes	
Ion bombardment induced smoothing of amorphous metallic surfaces: Experiments versus computer simulations (6 pages)	155406
Sebastian Vauth and S. G. Mayr	
Cobalt-doped β -peptide nanotubes: A class of spintronic materials (6 pages)	155407
Biplab Sanyal, Olle Eriksson, and Per I. Arvidsson	
☞ Coupling of plasmonic nanoparticles to their environments in the context of van der Waals–Casimir interactions (9 pages)	155408
U. Håkanson, M. Agio, S. Kühn, L. Rogobete, T. Kalkbrenner, and V. Sandoghdar	
Optical conductivity of bilayer graphene with and without an asymmetry gap (11 pages)	155409
E. J. Nicol and J. P. Carbotte	
CO oxidation on Pd(100) at technologically relevant pressure conditions: First-principles kinetic Monte Carlo study (12 pages)	155410
Jutta Rogal, Karsten Reuter, and Matthias Scheffler	
☞ Coulomb blockade in graphene nanodisks (9 pages)	155411
Motohiko Ezawa	
Raman spectra of single-walled carbon nanotubes with vacancies (8 pages)	155412
Sami Malola, Hannu Häkkinen, and Pekka Koskinen	
Rapidly converging methods for the location of quantum critical points from finite-size data (9 pages)	155413
M. Roncaglia, L. Campos Venuti, and C. Degli Esposti Boschi	
Strain relaxation in small adsorbate islands: O on W(110) (9 pages)	155414
T. O. Menteş, N. Stojić, N. Binggeli, M. A. Niño, A. Locatelli, L. Aballe, M. Kiskinova, and E. Bauer	
Ballistic conductance of oxygen and sulfur-incorporated zigzag Au atomic wires (5 pages)	155415
H. Ishida	
Chiral decomposition in the electronic structure of graphene multilayers (5 pages)	155416
Hongki Min and A. H. MacDonald	
Heat transfer between nanoparticles: Thermal conductance for near-field interactions (7 pages)	155417
A. Pérez-Madrid, J. M. Rubí, and L. C. Lapas	
Renormalization group study of transport through a superconducting junction of multiple one-dimensional quantum wires (16 pages)	155418
Sourin Das, Sumathi Rao, and Arijit Saha	
Plastic flow and failure resistance of metallic glass: Insight from <i>in situ</i> compression of nanopillars (6 pages)	155419
Z. W. Shan, J. Li, Y. Q. Cheng, A. M. Minor, S. A. Syed Asif, O. L. Warren, and E. Ma	

(Continued)

Entanglement between charge qubits induced by a common dissipative environment (9 pages)	155420
L. D. Contreras-Pulido and R. Aguado	
Adsorption and motion of C ₆₀ molecules on the Pb-covered Si(111) surface (7 pages)	155421
Shih-Hsin Chang, Ing-Shouh Hwang, Chung-Kai Fang, and Tien T. Tsong	
⌘ Junctions of three quantum wires for spin- $\frac{1}{2}$ electrons (32 pages)	155422
Chang-Yu Hou and Claudio Chamón	
Commensurate surface structures and concerted <i>cis-trans</i> -isomerization within ordered monolayers of α -sexithiophene on Ag(001) (8 pages)	155423
Klaus Duncker, Mario Kiel, Anke Höfer, and Wolf Widdra	
Dissociative adsorption of O ₂ molecules on O-precovered Fe(110) and Fe(100): Density-functional calculations (8 pages)	155424
Piotr Błoński, Adam Kiejna, and Jürgen Hafner	
Dielectric function of metal clusters: Finite-size effects and the macroscopic limit (14 pages)	155425
F. A. Ivanyuk	
Atomic and electronic structure of few-layer graphene on SiC(0001) studied with scanning tunneling microscopy and spectroscopy (10 pages)	155426
P. Lauffer, K. V. Emtsev, R. Graupner, Th. Seyller, L. Ley, S. A. Reshanov, and H. B. Weber	
Electronic interaction of individual slow highly charged ions with TiO ₂ (110) (4 pages)	155427
Masahide Tona, Yuso Fujita, Chikashi Yamada, and Shunsuke Ohtani	
<i>Ab initio</i> study of optical properties and magneto-optical Kerr effect in the pyrite compound CoS ₂ (8 pages)	155428
Swarup Saha, Molly De Raychaudhury, and T. Saha-Dasgupta	
Suppression of conductance fluctuation in weakly disordered mesoscopic graphene samples near the charge neutral point (5 pages)	155429
Neal E. Staley, Conor P. Puls, and Ying Liu	
Atomic structure model of the reconstructed Si(557) surface with a triple step structure: Adatom-parallel dimer model (7 pages)	155430
D.-H. Oh, M. K. Kim, J. H. Nam, I. Song, C.-Y. Park, S. H. Woo, H.-N. Hwang, C. C. Hwang, and J. R. Ahn	
⌘ Structure and properties of the stable two-dimensional conducting polymer Mg ₅ C ₆₀ (5 pages)	155431
D. Quintavalle, F. Borondics, G. Klupp, A. Baserga, F. Simon, A. Jánosy, K. Kamarás, and S. Pekker	
Theory of subgap interchain tunneling in quasi 1D conductors (11 pages)	155432
S. Brazovskii and S. I. Matveenko	
Bose-Einstein condensation and superfluidity of magnetoexcitons in bilayer graphene (10 pages)	155433
Oleg L. Berman, Yuri E. Lozovik, and Godfrey Gumbs	
Effect of strain on the band gap and effective mass of zigzag single-wall carbon nanotubes: First-principles density-functional calculations (7 pages)	155434
S. Sreekala, X.-H. Peng, P. M. Ajayan, and S. K. Nayak	
Theoretical studies of epitaxially grown Co and Ni thin films on (111) metallic substrates (6 pages)	155435
M. Zelený and M. Šob	

(Continued)

Charge accumulation at the boundaries of a graphene strip induced by a gate voltage: Electrostatic approach (5 pages)	155436
P. G. Silvestrov and K. B. Efetov	
Electronic transport in iron atomic contacts: From the infinite wire to realistic geometries (11 pages)	155437
Gabriel Autès, Cyrille Barreteau, Daniel Spanjaard, and Marie-Catherine Desjonquères	
Renormalization of the dephasing by zero point fluctuations (8 pages)	155438
Swarnali Bandopadhyay and Doron Cohen	
Optical transitions in a quantum wire with spin-orbit interaction and its applications in terahertz electronics: Beyond zeroth-order theory (12 pages)	155439
P. Upadhyaya, S. Pramanik, and S. Bandyopadhyay	

ERRATA

Publisher's Note: Morphology of copper nanoparticles in a nitrogen atmosphere: A first-principles investigation [Phys. Rev. B 77 , 125423 (2008)] (1 page)	159901(E)
Aloysius Soon, Lindee Wong, Bernard Delley, and Catherine Stampfl	
Publisher's Note: Long-time electron spin storage via dynamical suppression of hyperfine-induced decoherence in a quantum dot [Phys. Rev. B 77 , 125336 (2008)] (1 page)	159902(E)
Wenxian Zhang, N. P. Konstantinidis, V. V. Dobrovitski, B. N. Harmon, Lea F. Santos, and Lorenza Viola	
Publisher's Note: Energy transfer to Gd^{3+} from the self-trapped exciton in $ScPO_4:Gd^{3+}$: Dynamics and application to quantum cutting [Phys. Rev. B 77 , 075129 (2008)] (1 page)	159903(E)
Y. Zhou, S. P. Feofilov, H. J. Seo, J. Y. Jeong, D. A. Keszler, and R. S. Meltzer	
Publisher's Note: Krylov subspace method for evaluating the self-energy matrices in electron transport calculations [Phys. Rev. B 77 , 155301 (2008)] (1 page)	159904(E)
Hans Henrik B. Sørensen, Per Christian Hansen, Dan Erik Petersen, Stig Skelboe, and Kurt Stokbro	
Erratum: Exciton-polariton kinematic interactions in organic microcavities [Phys. Rev. B 72 , 125306 (2005)] (1 page)	159905(E)
Hashem Zoubi and G. C. La Rocca	