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 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 85, NUMBER 24 *CONTENTS* **JUNE 2012-15(II)**

RAPID COMMUNICATIONS

Electronic structure and strongly correlated systems

Adler-Bell-Jackiw anomaly in Weyl semimetals: Application to pyrochlore iridates *(4 pages)* . . . . . 241101(R)
Vivek Aji

Observation of two fine structures related to the hidden order in the spectral functions of URu_2Si_2 *(4 pages)* . . . . . 241102(R)
Rikiya Yoshida, Masaki Fukui, Yoshinori Haga, Etsuji Yamamoto, Yoshichika Onuki, Mario Okawa, Walid Malaeb, Shik Shin, Yuji Muraoka, and Takayoshi Yokoya

Emerging coherence with unified energy, temperature, and lifetime scale in heavy fermion $YbRh_2Si_2$ *(5 pages)* . . . . . 241103(R)
S.-K. Mo, W. S. Lee, F. Schmitt, Y. L. Chen, D. H. Lu, C. Capan, D. J. Kim, Z. Fisk, C.-Q. Zhang, Z. Hussain, and Z.-X. Shen

Sliding charge-density wave in two-dimensional rare-earth tellurides *(5 pages)* . . . . . 241104(R)
A. A. Sinchenko, P. Lejay, and P. Monceau

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

Nonlinear spin to charge conversion in mesoscopic structures *(4 pages)* . . . . . 241301(R)
Peter Stano, Jaroslav Fabian, and Philippe Jacquod

Spin polarization of the $\nu = 12/5$ fractional quantum Hall state *(5 pages)* . . . . . 241302(R)
Chi Zhang, Chao Huan, J. S. Xia, N. S. Sullivan, W. Pan, K. W. Baldwin, K. W. West, L. N. Pfeiffer, and D. C. Tsui

Spin band-gap renormalization and hole spin dynamics in Ge/SiGe quantum wells *(5 pages)* . . . . . 241303(R)
C. Lange, G. Isella, D. Chrastina, F. Pezzoli, N. S. Köster, R. Woscholski, and S. Chatterjee

Complete control of a matter qubit using a single picosecond laser pulse *(5 pages)* . . . . . 241304(R)
Y. Kodriano, I. Schwartz, E. Poem, Y. Benny, R. Presman, T. A. Truong, P. M. Petroff, and D. Gershoni

Shubnikov–de Haas oscillations in GaAs quantum wells in tilted magnetic fields *(4 pages)* . . . . . 241305(R)
A. T. Hatke, M. A. Zudov, L. N. Pfeiffer, and K. W. West

High-fidelity optical preparation and coherent Larmor precession of a single hole in an (In,Ga)As quantum dot molecule *(4 pages)* . . . . . 241306(R)
K. Müller, A. Bechtold, C. Ruppert, C. Hautmann, J. S. Wildmann, T. Kaldewey, M. Bichler, H. J. Krenner, G. Abstreiter, M. Betz, and J. J. Finley

Copyright 2012 by American Physical Society

1098-0121(20120615)85:24;1-K

(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, 130001 (2008).

PHYSICAL REVIEW B THIRD SERIES, VOLUME 85, NUMBER 24 JUNE 2012-15(II)

Typology for quantum Hall liquids *(4 pages)* . . . . . 241307(R)
S. A. Parameswaran, S. A. Kivelson, E. H. Rezayi, S. H. Simon, S. L. Sondhi, and B. Z. Spivak

Fractional Chern insulators and the W_∞ algebra *(4 pages)* . . . . . 241308(R)
S. A. Parameswaran, R. Roy, and S. L. Sondhi

Correlated electron dynamics in quantum-dot sensitized solar cell: Kadanoff-Baym versus Markovian approach *(5 pages)* . . . . . 241309(R)
Grigory Kolesov and Yuri Dahnovsky

Electrostatic control over polarized currents through the spin-orbital Kondo effect *(5 pages)* . . . . . 241310(R)
C. A. Büsser, A. E. Feiguin, and G. B. Martins

Surface physics, nanoscale physics, low-dimensional systems

High-fidelity quantum gates via analytically solvable pulses *(4 pages)* . . . . . 241401(R)
Sophia E. Economou

Robustness of helical edge states in topological insulators *(4 pages)* . . . . . 241402(R)
Xue-Feng Wang, Yibin Hu, and Hong Guo

Two-qubit geometric phase gate for quantum dot spins using cavity polariton resonance *(4 pages)* . . . . . 241403(R)
Shruti Puri, Na Young Kim, and Yoshihisa Yamamoto

Impact of Auger processes on carrier dynamics in graphene *(5 pages)* . . . . . 241404(R)
Torben Winzer and Ermin Malić

ARTICLES

Electronic structure and strongly correlated systems

Quench dynamics of correlated quantum dots *(8 pages)* 245101
D. M. Kennes and V. Meden

Modified embedded atom method potential for Al, Si, Mg, Cu, and Fe alloys *(18 pages)* 245102
B. Jelinek, S. Groh, M. F. Horstemeyer, J. Houze, S. G. Kim, G. J. Wagner, A. Moitra, and M. I. Baskes

Generalized scattering-matrix approach for magneto-optics in periodically patterned multilayer systems *(11 pages)* 245103
B. Caballero, A. García-Martín, and J. C. Cuevas

General properties of electron-positron momentum densities *(9 pages)* 245104
G. Kontrym-Sznajd, H. Sormann, and E. Boroński

Electron pairing and Coulomb repulsion in one-dimensional anharmonic lattices *(9 pages)* 245105
L. Brizhik, A. P. Chetverikov, W. Ebeling, G. Röpke, and M. G. Velarde

Nonlinear dynamics and inner-ring photoluminescence pattern of indirect excitons *(7 pages)* 245106
Mathieu Alloing, Aristide Lemaître, Elisabeth Galopin, and François Dubin

Dissipationless phonon Hall viscosity *(12 pages)* 245107
Maissam Barkeshli, Suk Bum Chung, and Xiao-Liang Qi

Kondo lattice on the edge of a two-dimensional topological insulator *(15 pages)* 245108
Joseph Maciejko

(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, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 85, NUMBER 24** **JUNE 2012-15(II)**

Continuous transition between antiferromagnetic insulator and paramagnetic metal in the pyrochlore iridate $Eu_2Ir_2O_7$ *(6 pages)* 245109
Jun J. Ishikawa, Eoin C. T. O'Farrell, and Satoru Nakatsuji

Pressure-driven orbital selective insulator-to-metal transition and spin-state crossover in cubic CoO *(5 pages)* 245110
Li Huang, Yilin Wang, and Xi Dai

Calculations of the thermodynamic and kinetic properties of $Li_{1+x}V_3O_8$ *(13 pages)* 245111
Tonghu Jiang and Michael L. Falk

Hidden and antiferromagnetic order as a rank-5 superspin in URu_2Si_2 *(6 pages)* 245112
Jeffrey G. Rau and Hae-Young Kee

Effective approach to the Nagaoka regime of the two-dimensional t-J model *(9 pages)* 245113
M. M. Maśka, M. Mierzejewski, E. A. Kochetov, L. Vidmar, J. Bonča, and O. P. Sushkov

Excitation of collective modes in a quantum flute *(9 pages)* 245114
Kristinn Torfason, Andrei Manolescu, Valeriu Molodoveanu, and Vidar Gudmundsson

Large electric-field effects on the resistance of $La_{0.67}Ca_{0.33}MnO_3$ microstructures *(4 pages)* 245115
C. Beekman, I. Komissarov, and J. Aarts

Transport, thermoelectric, and thermal expansion investigations of the cage structure compound $CeOs_2Al_{10}$ *(7 pages)* 245116
C. S. Lue, H. F. Liu, B. D. Ingale, J. N. Li, and Y. K. Kuo

Origin of NMR shielding in fluorides *(6 pages)* 245117
Robert Laskowski and Peter Blaha

Internal electric fields and color shift in Cr^{3+}-based gemstones *(10 pages)* 245118
J. A. Aramburu, P. Garcia-Fernandez, J. M. García-Lastra, M. T. Barriuso, and M. Moreno

Fermi-surface evolution in Yb-substituted $CeCoIn_5$ *(8 pages)* 245119
A. Polyakov, O. Ignatchik, B. Bergk, K. Götze, A. D. Bianchi, S. Blackburn, B. Prévost, G. Seyfarth, M. Côté, D. Hurt, C. Capan, Z. Fisk, R. G. Goodrich, I. Sheikin, Manuel Richter, and J. Wosnitza

Functional renormalization group approach to the Ising-nematic quantum critical point of two-dimensional metals *(18 pages)* 245120
Casper Drukier, Lorenz Bartosch, Aldo Isidori, and Peter Kopietz

Universal transport signatures of Majorana fermions in superconductor-Luttinger liquid junctions *(22 pages)* 245121
Lukasz Fidkowski, Jason Alicea, Netanel H. Lindner, Roman M. Lutchyn, and Matthew P. A. Fisher

Thermally assisted tunneling transport in $La_{0.7}Ca_{0.3}MnO_3/SrTiO_3$:Nb Schottky-like heterojunctions *(6 pages)* 245122
F. A. Cuellar, G. Sanchez-Santolino, M. Varela, M. Clement, E. Iborra, Z. Sefrioui, J. Santamaria, and C. Leon

Skyrmions with quadratic band touching fermions: A way to achieve charge 4e superconductivity *(5 pages)* 245123
Eun-Gook Moon

Precise response functions in all-electron methods: Application to the optimized-effective-potential approach *(15 pages)* 245124
Markus Betzinger, Christoph Friedrich, Andreas Görling, and Stefan Blügel

(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, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 85, NUMBER 24** **JUNE 2012-15(II)**

Dielectric screening in extended systems using the self-consistent Sternheimer equation and localized basis sets *(5 pages)* 245125
Hannes Hübener, Miguel A. Pérez-Osorio, Pablo Ordejón, and Feliciano Giustino

Classification of topological symmetry sectors on anyon rings *(4 pages)* 245126
Robert N. C. Pfeifer

Stability of Holstein and Fröhlich bipolarons *(6 pages)* 245127
Monodeep Chakraborty, B. I. Min, Atisdipankar Chakrabarti, and A. N. Das

High-pressure tuning of valence and magnetic interactions in $Eu_{0.5}Yb_{0.5}Ga_4$ *(6 pages)* 245128
G. D. Loula, R. D. dos Reis, D. Haskel, F. Garcia, N. M. Souza-Neto, and F. C. G. Gandra

Pseudogap and quasiparticle behavior in the normal state of κ-(BEDT-TTF)$_2X$ *(12 pages)* 245129
D. Meddeb, S. Charfi-Kaddour, B. Bellafi, and M. Héritier

Symmetry-projected variational approach for ground and excited states of the two-dimensional Hubbard model *(15 pages)* 245130
R. Rodríguez-Guzmán, K. W. Schmid, Carlos A. Jiménez-Hoyos, and Gustavo E. Scuseria

Electronic structure of $(LaNiO_3)_2/(LaAlO_3)_N$ heterostructures grown along [111] *(11 pages)* 245131
Andreas Rüegg, Chandrima Mitra, Alexander A. Demkov, and Gregory A. Fiete

Interacting topological phases and modular invariance *(10 pages)* 245132
Shinsei Ryu and Shou-Cheng Zhang

Origin of the charge density wave in 1T-$TiSe_2$ *(4 pages)* 245133
Zhiyong Zhu, Yingchun Cheng, and Udo Schwingenschlögl

Mixed states in Rabi waves and quantum nanoantennas *(10 pages)* 245134
G. Ya. Slepyan, Y. D. Yerchak, S. A. Maksimenko, A. Hoffmann, and F. G. Bass

Semiconductors I: bulk

Symmetry effects on nonlocal electron-phonon coupling in organic semiconductors *(7 pages)* 245201
Yuan Li, Yuanping Yi, Veaceslav Coropceanu, and Jean-Luc Brédas

Quantification of the magnetic exchange via element-selective high-field magnetometry: Co-doped ZnO epitaxial films *(8 pages)* 245202
A. Ney, V. Ney, F. Wilhelm, A. Rogalev, and K. Usadel

Two-step thermal quenching of photoluminescence in Zn-doped GaN *(11 pages)* 245203
Michael A. Reshchikov

Atomic-scale structure and band-gap bowing in $Cu(In,Ga)Se_2$ *(7 pages)* 245204
C. S. Schnohr, H. Kämmer, C. Stephan, S. Schorr, T. Steinbach, and J. Rensberg

Scaling theory for percolative charge transport in molecular semiconductors: Correlated versus uncorrelated energetic disorder *(8 pages)* 245205
J. Cottaar, R. Coehoorn, and P. A. Bobbert

Wave-packet approach to transport properties of carrier coupled with intermolecular and intramolecular vibrations of organic semiconductors *(9 pages)* 245206
Hiroyuki Ishii, Keisuke Honma, Nobuhiko Kobayashi, and Kenji Hirose

(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, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 85, NUMBER 24** **JUNE 2012-15(II)**

Electronic transitions of single silicon vacancy centers in the near-infrared spectral region *(8 pages)* 245207
Elke Neu, Roland Albrecht, Martin Fischer, Stefan Gsell, Matthias Schreck, and Christoph Becher

Field-dependent exciton dissociation in organic heterojunction solar cells *(10 pages)* 245208
Andreas Petersen, Antti Ojala, Thomas Kirchartz, Thomas A. Wagner, Frank Würthner, and Uwe Rau

Singlet exciton diffusion length in organic light-emitting diodes *(8 pages)* 245209
Simone Hofmann, Thomas C. Rosenow, Malte C. Gather, Björn Lüssem, and Karl Leo

Effect of Mn doping on the temperature-dependent anomalous giant dielectric behavior of $CaCu_3Ti_4O_{12}$ *(6 pages)* 245210
C. H. Kim, Y. H. Jang, S. J. Seo, C. H. Song, J. Y. Son, Y. S. Yang, and J. H. Cho

Electronic, vibrational, and transport properties of pnictogen-substituted ternary skutterudites *(10 pages)* 245211
Dmitri Volja, Boris Kozinsky, An Li, Daehyun Wee, Nicola Marzari, and Marco Fornari

Nonlinear dynamics of corrugated doping fronts in organic optoelectronic devices *(12 pages)* 245212
V. Bychkov, O. Jukimenko, M. Modestov, and M. Marklund

Effects of spin-spin interactions on magnetoresistance in disordered organic semiconductors *(9 pages)* 245213
N. J. Harmon and M. E. Flatté

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

Topological thermoelectric effects in spin-orbit coupled electron- and hole-doped semiconductors *(8 pages)* 245301
E. Dumitrescu, Chuanwei Zhang, D. C. Marinescu, and Sumanta Tewari

High-fidelity simulations of CdTe vapor deposition from a bond-order potential-based molecular dynamics method *(15 pages)* 245302
X. W. Zhou, D. K. Ward, B. M. Wong, F. P. Doty, J. A. Zimmerman, G. N. Nielson, J. L. Cruz-Campa, V. P. Gupta, J. E. Granata, J. J. Chavez, and D. Zubia

Spinful composite fermions in a negative effective field *(13 pages)* 245303
Simon C. Davenport and Steven H. Simon

Nanosecond laser-induced selective removal of the active layer of $CuInGaSe_2$ solar cells by stress-assisted ablation *(14 pages)* 245304
András Buzás and Zsolt Geretovszky

Germanium core-level shifts at Ge/GeO_2 interfaces through hybrid functionals *(15 pages)* 245305
Jan Felix Binder, Peter Broqvist, Hannu-Pekka Komsa, and Alfredo Pasquarello

Formation and stability of a two-dimensional nickel silicide on Ni(111): An Auger, LEED, STM, and high-resolution photoemission study *(6 pages)* 245306
B. Lalmi, C. Girardeaux, A. Portavoce, C. Ottaviani, B. Aufray, and J. Bernardini

Topological *d*-wave pairing structures in Jain states *(7 pages)* 245307
N. Moran, A. Sterdyniak, I. Vidanović, N. Regnault, and M. V. Milovanović

Impact of biexcitons on the relaxation mechanisms of polaritons in III-nitride based multiple quantum well microcavities *(13 pages)* 245308
P. Corfdir, J. Levrat, G. Rossbach, R. Butté, E. Feltin, J.-F. Carlin, G. Christmann, P. Lefebvre, J.-D. Ganière, N. Grandjean, and B. Deveaud-Plédran

(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, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 85, NUMBER 24** **JUNE 2012-15(II)**

Spintronics-based mesoscopic heat engine *(4 pages)* 245309
J. Atalaya and L. Y. Gorelik

Optical Aharonov-Bohm oscillations in InGaAs quantum wells *(5 pages)* 245310
L. Schweidenback, T. Ali, A. H. Russ, J. R. Murphy, A. N. Cartwright, A. Petrou, C. H. Li, M. K. Yakes, G. Kioseoglou, B. T. Jonker, and A. Govorov

X-ray diffraction study of plastic relaxation in Ge-rich SiGe virtual substrates *(9 pages)* 245311
Viktor S. Kopp, Vladimir M. Kaganer, Giovanni Capellini, Monica De Seta, and Peter Zaumseil

Enhanced orbital mixing in the valence band of strained germanium *(4 pages)* 245312
F. Bottegoni, A. Ferrari, G. Isella, M. Finazzi, and F. Ciccacci

Understanding the role of Si doping on surface charge and optical properties: Photoluminescence study of intrinsic and Si-doped InN nanowires *(8 pages)* 245313
S. Zhao, Z. Mi, M. G. Kibria, Q. Li, and G. T. Wang

Phase separation analysis of bulk heterojunctions in small-molecule organic solar cells using zinc-phthalocyanine and C_{60} *(10 pages)* 245314
Christoph Schünemann, David Wynands, Lutz Wilde, Moritz Philipp Hein, Steffen Pfützner, Chris Elschner, Klaus-Jochen Eichhorn, Karl Leo, and Moritz Riede

Transition dynamics in the electrical breakdown of the quantum Hall effect *(6 pages)* 245315
Ming-Yang Li, T. Nakajima, Kuan-Ting Lin, C. C. Chi, J. C. Chen, and S. Komiyama

Defect formation dynamics during CdTe overlayer growth *(4 pages)* 245316
J. J. Chavez, D. K. Ward, B. M. Wong, F. P. Doty, J. L. Cruz-Campa, G. N. Nielson, V. P. Gupta, D. Zubia, J. McClure, and X. W. Zhou

PTCDA induced reconstruction on Sn/Si(111)-$2\sqrt{3} \times 2\sqrt{3}$ *(5 pages)* 245317
H. M. Zhang, L. K. E. Ericsson, and L. S. O. Johansson

Using spacer layers to control metal and semiconductor absorption in ultrathin solar cells with plasmonic substrates *(10 pages)* 245318
Niraj N. Lal, Hang Zhou, Matthew Hawkeye, Jatin K. Sinha, Philip N. Bartlett, Gehan A. J. Amaratunga, and Jeremy J. Baumberg

Transport blocking and topological phases using ac magnetic fields *(5 pages)* 245319
A. Gómez-León and G. Platero

Zener tunneling isospin Hall effect in HgTe quantum wells and graphene multilayers *(10 pages)* 245320
M. Lasia, E. Prada, and L. Brey

Effects of spin polarization in the HgTe quantum well *(8 pages)* 245321
M. V. Yakunin, A. V. Suslov, S. M. Podgornykh, S. A. Dvoretsky, and N. N. Mikhailov

Surface physics, nanoscale physics, low-dimensional systems

Tunable wide-angle plasmonic perfect absorber at visible frequencies *(7 pages)* 245401
Zheyu Fang, Yu-Rong Zhen, Linran Fan, Xing Zhu, and Peter Nordlander

Junction between surfaces of two topological insulators *(10 pages)* 245402
Diptiman Sen and Oindrila Deb

(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, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 85, NUMBER 24** **JUNE 2012-15(II)**

Monitoring the formation of interface-confined mixture by photoelectron spectroscopy *(7 pages)* 245403
Azzedine Bendounan, Jürgen Braun, Jan Minár, Sven Bornemann, Roman Fasel, Oliver Gröning, Yannick Fagot-Revurat, Bertrand Kierren, Daniel Malterre, Fausto Sirotti, and Hubert Ebert

Quantum Monte Carlo study of small aluminum clusters Al_n ($n = 2$–13) *(7 pages)* 245404
Ladir Cândido, J. N. Teixeira Rabelo, Juarez L. F. Da Silva, and Guo-Qiang Hai

Stable ferromagnetism and doping-induced half-metallicity in asymmetric graphene nanoribbons *(5 pages)* 245405
Donat J. Adams, Oliver Gröning, Carlo A. Pignedoli, Pascal Ruffieux, Roman Fasel, and Daniele Passerone

Effect of ^{13}C isotope doping on the optical phonon modes in graphene: Localization and Raman spectroscopy *(8 pages)* 245406
J. F. Rodriguez-Nieva, R. Saito, S. D. Costa, and M. S. Dresselhaus

Enhanced transmission with a graphene-dielectric microstructure at low-terahertz frequencies *(6 pages)* 245407
Chandra S. R. Kaipa, Alexander B. Yakovlev, George W. Hanson, Yashwanth R. Padooru, Francisco Medina, and Francisco Mesa

Generation of coherently coupled vibronic oscillations in carotenoids *(10 pages)* 245408
Mitsuru Sugisaki, Daisuke Kosumi, Keisuke Saito, Richard J. Cogdell, and Hideki Hashimoto

Graphene-based polaritonic crystal *(5 pages)* 245409
Yu. V. Bludov, N. M. R. Peres, and M. I. Vasilevskiy

Origin of electron-hole asymmetry in graphite and graphene *(5 pages)* 245410
P. Plochocka, P. Y. Solane, R. J. Nicholas, J. M. Schneider, B. A. Piot, D. K. Maude, O. Portugall, and G. L. J. A. Rikken

Collective resonances in metal nanoparticle arrays with dipole-quadrupole interactions *(12 pages)* 245411
Andrey B. Evlyukhin, Carsten Reinhardt, Urs Zywietz, and Boris N. Chichkov

One-dimensional ballistic transport with FLAPW Wannier functions *(18 pages)* 245412
Björn Hardrat, Neng-Ping Wang, Frank Freimuth, Yuriy Mokrousov, and Stefan Heinze

Spin-split silicon states at step edges of Si(553)-Au *(9 pages)* 245413
K. Biedermann, S. Regensburger, Th. Fauster, F. J. Himpsel, and S. C. Erwin

Master equation approach of classical noise in intersubband detectors *(10 pages)* 245414
A. Delga, M. Carras, V. Trinité, V. Guériaux, L. Doyennette, A. Nedelcu, H. Schneider, and V. Berger

Tight-binding model of Mn_{12} single-molecule magnets: Electronic and magnetic structure and transport properties *(16 pages)* 245415
Fatemeh Rostamzadeh Renani and George Kirczenow

Spin-polarized currents in parallel coupled double quantum point contacts *(4 pages)* 245416
Tung-Sheng Lo, Yiping Lin, and Jeng-Chung Chen

Tunable thermal transport and thermal rectification in strained graphene nanoribbons *(5 pages)* 245417
K. G. S. H. Gunawardana, Kieran Mullen, Jiuning Hu, Yong P. Chen, and Xiulin Ruan

Symmetries and the conductance of graphene nanoribbons with long-range disorder *(10 pages)* 245418
Jürgen Wurm, Michael Wimmer, and Klaus Richter

(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, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 85, NUMBER 24** **JUNE 2012-15(II)**

Electric dipole moment oscillations in Aharonov-Bohm quantum rings *(9 pages)* 245419
A. M. Alexeev and M. E. Portnoi

Quasiparticle band gaps of boron nitride nanoribbons *(6 pages)* 245420
Chunping Hu, Ryo Ogura, Nobuhito Onoda, Satoru Konabe, and Kazuyuki Watanabe

High van Hove singularity extension and Fermi velocity increase in epitaxial graphene functionalized by intercalated gold clusters *(6 pages)* 245421
M. N. Nair, M. Cranney, F. Vonau, D. Aubel, P. Le Fèvre, A. Tejeda, F. Bertran, A. Taleb-Ibrahimi, and L. Simon

Configurational disorder effects on adatom mobilities on $Ti_{1-x}Al_xN(001)$ surfaces from first principles *(7 pages)* 245422
B. Alling, P. Steneteg, C. Tholander, F. Tasnádi, I. Petrov, J. E. Greene, and L. Hultman

Derivation of third-order nonlinear susceptibility of thin metal films as a delayed optical response *(4 pages)* 245423
Matteo Conforti and Giuseppe Della Valle

Random matrices and quantum chaos in weakly disordered graphene nanoflakes *(20 pages)* 245424
Adam Rycerz

Light scattering by a magneto-optical nanoparticle in front of a flat surface: Perturbative approach *(10 pages)* 245425
H. Marinchio, J. J. Sáenz, and R. Carminati

Magnetotransport in periodically modulated bilayer graphene *(10 pages)* 245426
M. Zarenia, P. Vasilopoulos, and F. M. Peeters

Inelastic electron transport through mesoscopic systems: Heating versus cooling and sequential tunneling versus cotunneling processes *(12 pages)* 245427
Feng Jiang, Jinshuang Jin, Shikuan Wang, and YiJing Yan

Multilayer thin film growth on crystalline and quasicrystalline surfaces: A phase-field crystal study *(14 pages)* . . . 245428
Srevatsan Muralidharan, Raika Khodadad, Ethan Sullivan, and Mikko Haataja

Scanning tunneling spectroscopy and Dirac point resonances due to a single Co adatom on gated graphene *(11 pages)* 245429
Alireza Saffarzadeh and George Kirczenow

van der Waals interaction in magnetic bilayer graphene nanoribbons *(6 pages)* 245430
H. Santos, A. Ayuela, L. Chico, and Emilio Artacho

Dynamics of interacting transport qubits *(8 pages)* 245431
Christian Nietner, Gernot Schaller, Christina Pöltl, and Tobias Brandes

Promoting magnetic dipolar transition in trivalent lanthanide ions with lossless Mie resonances *(6 pages)* 245432
Brice Rolly, Betina Bebey, Sebastien Bidault, Brian Stout, and Nicolas Bonod

Theory of multiple magnetic scattering for quasiparticles on a gapless topological insulator surface *(7 pages)* 245433
Zhen-Guo Fu, Ping Zhang, Zhigang Wang, Fawei Zheng, and Shu-Shen Li

Effect of hydrogen coverage on the Young's modulus of graphene *(3 pages)* 245434
Emiliano Cadelano and Luciano Colombo

(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, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 85, NUMBER 24** **JUNE 2012-15(II)**

Tuning the electron transport of molecular junctions by chemically functionalizing anchoring groups: First-principles study *(7 pages)* 245435
Shigeru Tsukamoto, Vasile Caciuc, Nicolae Atodiresei, and Stefan Blügel

Junction resistance, tunnel magnetoresistance ratio, and spin-transfer torque in Zn-doped magnetic tunnel junctions *(6 pages)* 245436
Dongping Liu, Xiufeng Han, and Hong Guo

Isotope effect in the spin response of aluminum tris(8-hydroxyquinoline) based devices *(7 pages)* 245437
Tho D. Nguyen, T. P. Basel, Y.-J. Pu, X-G. Li, E. Ehrenfreund, and Z. V. Vardeny

Atomic configuration and phase transition of Pt-induced nanowires on a Ge(001) surface studied using scanning tunneling microscopy, reflection high-energy positron diffraction, and angle-resolved photoemission spectroscopy *(6 pages)* 245438
Izumi Mochizuki, Yuki Fukaya, Atsuo Kawasuso, Koichiro Yaji, Ayumi Harasawa, Iwao Matsuda, Ken Wada, and Toshio Hyodo

Empirical evaluation of attractive van der Waals potentials for type-purified single-walled carbon nanotubes *(9 pages)* 245439
Erik K. Hobbie, Thomas Ihle, John M. Harris, and Matthew R. Semler

Resolving all atoms of an alkali halide via nanomodulation of the thin NaCl film surface using the Au(111) reconstruction *(7 pages)* 245440
K. Lauwaet, K. Schouteden, E. Janssens, C. Van Haesendonck, P. Lievens, M. I. Trioni, L. Giordano, and G. Pacchioni

Tunable thermopower in a graphene-based topological insulator *(6 pages)* 245441
Oleksii Shevtsov, Pierre Carmier, Christoph Groth, Xavier Waintal, and David Carpentier

Voltage-induced conformational changes and current control in charge transfer through molecules *(6 pages)* 245442
Lars Kecke and Joachim Ankerhold

Critical analysis of vacancy-induced magnetism in monolayer and bilayer graphene *(8 pages)* 245443
J. J. Palacios and F. Ynduráin

Current-induced atomic dynamics, instabilities, and Raman signals: Quasiclassical Langevin equation approach *(16 pages)* 245444
Jing-Tao Lü, Mads Brandbyge, Per Hedegård, Tchavdar N. Todorov, and Daniel Dundas

Measuring the mode volume of plasmonic nanocavities using coupled optical emitters *(4 pages)* 245445
Kasey J. Russell, Kitty Y. M. Yeung, and Evelyn Hu

Role of defect healing on the chirality of single-wall carbon nanotubes *(6 pages)* 245446
M. Diarra, H. Amara, C. Bichara, and F. Ducastelle

Modal decompositions of the local electromagnetic density of states and spatially resolved electron energy loss probability in terms of geometric modes *(15 pages)* 245447
Guillaume Boudarham and Mathieu Kociak

Conductance fluctuations in graphene systems: The relevance of classical dynamics *(7 pages)* 245448
Lei Ying, Liang Huang, Ying-Cheng Lai, and Celso Grebogi

(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, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 85, NUMBER 24** **JUNE 2012-15(II)**

Dielectric screening effects on transition energies in aligned carbon nanotubes *(6 pages)* 245449
Olga A. Dyatlova, Jordi Gomis-Bresco, Ermin Malic, Hagen Telg, Janina Maultzsch, Guofang Zhong, Junfeng Geng, and Ulrike Woggon

Transition from Au to pseudo-Ga catalyzed growth mode observed in GaAs nanowires grown by molecular beam epitaxy *(6 pages)* 245450
M. Soda, A. Rudolph, D. Schuh, J. Zweck, D. Bougeard, and E. Reiger

℘ Competing nematic, antiferromagnetic, and spin-flux orders in the ground state of bilayer graphene *(18 pages)* . . . 245451
Y. Lemonik, I. Aleiner, and V. I. Fal'ko

℘ 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, 130001 (2008).