

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 82, NUMBER 19

CONTENTS

NOVEMBER 2010-15(I)

BRIEF REPORTS

Electronic structure and strongly correlated systems

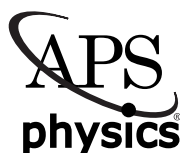
- Escape mechanism of a self-trapped topological soliton (*4 pages*) 193101
Yongwoo Shin, Minghai Li, André L. Botelho, and Xi Lin
- Soft x-ray absorption and photoemission spectroscopy study of superoxide KO_2 (*4 pages*) 193102
J.-S. Kang, D. H. Kim, J. H. Hwang, J. Baik, H. J. Shin, Minjae Kim, Y. H. Jeong, and B. I. Min
- Optimizing photoelectrochemical properties of TiO_2 by chemical codoping (*4 pages*) 193103
Peng Wang, Zhirong Liu, Feng Lin, Gang Zhou, Jian Wu, Wenhui Duan, Bing-Lin Gu, and
S. B. Zhang

Semiconductors I: bulk

- Hydrogen donors in SnO_2 studied by infrared spectroscopy and first-principles calculations (*4 pages*) 193201
W. M. Hlaing Oo, S. Tabatabaei, M. D. McCluskey, J. B. Varley, A. Janotti, and C. G. Van de Walle
- Extracting nondispersive charge carrier mobilities of organic semiconductors from simulations of small
systems (*4 pages*) 193202
Alexander Lukyanov and Denis Andrienko
- Possible room-temperature ferromagnetism in K-doped SnO_2 : X-ray diffraction and high-resolution
transmission electron microscopy study (*4 pages*) 193203
S. K. Srivastava, P. Lejay, B. Barbara, S. Pailhès, V. Madigou, and G. Bouzerar
- Band crossing in isovalent semiconductor alloys with large size mismatch: First-principles calculations of the
electronic structure of Bi and N incorporated GaAs (*4 pages*) 193204
Hui-Xiong Deng, Jingbo Li, Shu-Shen Li, Haowei Peng, Jian-Bai Xia, Lin-Wang Wang, and
Su-Huai Wei

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

- Anisotropic charge transport in nonpolar GaN quantum wells: Polarization induced line charge and interface
roughness scattering (*4 pages*) 193301
Aniruddha Konar, Tian Fang, Nan Sun, and Debdeep Jena
- Photoluminescence of PbS nanocrystals at high magnetic fields up to 30 T (*4 pages*) 193302
L. Turyanska, J. H. Blokland, U. Elfurawi, O. Makarovsky, P. C. M. Christianen, and A. Patanè



Copyright 2010 by The American Physical Society



1098-0121(20101115)82:19;1-V

(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).

Locking and unlocking of the counterflow transport in $\nu=1$ quantum Hall bilayers by tilting of magnetic field (4 pages)	193303
D. V. Fil	
Control of p - d exchange interaction in single Mn-doped vertically coupled asymmetric double quantum dots (4 pages)	193304
L. Villegas-Lelovsky, Fanyao Qu, V. López-Richard, and G. E. Marques	
Surface physics, nanoscale physics, low-dimensional systems	
Effective shear-strain driven electromechanical response in helical rippled carbon nanotubes (4 pages)	193401
D.-B. Zhang and T. Dumitrică	
Full Poincaré sphere coverage with plasmonic nanoslit metamaterials at Fano resonance (4 pages)	193402
M. R. Shcherbakov, M. I. Dobynde, T. V. Dolgova, D.-P. Tsai, and A. A. Fedyanin	
Renormalized spectral function for Co adatom on the Pt(111) surface (4 pages)	193403
V. V. Mazurenko, S. N. Isakov, A. N. Rudenko, V. I. Anisimov, and A. I. Lichtenstein	
Dislocation mechanism of interface point defect migration (4 pages)	193404
Kedarnath Kolluri and Michael J. Demkowicz	
Local density of states and Friedel oscillations in graphene (4 pages)	193405
Ádám Bácsi and Attila Virosztek	
Tunable charge donation and spin polarization of metal adsorbates on graphene using an applied electric field (4 pages)	193406
Jae-Hyeon Parq, Jaejun Yu, Young-Kyun Kwon, and Gunn Kim	
Two-phonon assisted selective adsorption (4 pages)	193407
Wilhelm Brenig and Christian Mosch	
Regular pattern formation through the retraction and pinch-off of edges during solid-state dewetting of patterned single crystal films (4 pages)	193408
Jongpil Ye and Carl V. Thompson	
Electronic and optical properties of carbon nanotubes under pure bending (4 pages)	193409
Pekka Koskinen	
Giant magnetic moment enhancement of nickel nanoparticles embedded in multiwalled carbon nanotubes (4 pages)	193410
Jun Wang, Pieder Beeli, Yang Ren, and Guo-meng Zhao	
Strong effect of substrate termination on Rashba spin-orbit splitting: Bi on BaTiO ₃ (001) from first principles (4 pages)	193411
Samir Abdelouahed and J. Henk	
High-temperature investigation of intradimer diffusion of hydrogen on Si(001) (4 pages)	193412
C. H. Schwalb, M. Dürr, and U. Höfer	

ARTICLES

Electronic structure and strongly correlated systems

Orbital-selective pressure-driven metal to insulator transition in FeO from dynamical mean-field theory (4 pages)	195101
A. O. Shorikov, Z. V. Pchelkina, V. I. Anisimov, S. L. Skornyakov, and M. A. Korotin	

(Continued)

Thermoelectric transport properties of PbTe under pressure (<i>16 pages</i>)	195102
Lanqing Xu (徐兰青), Yongping Zheng (郑勇平), and Jin-Cheng Zheng (郑金成)	
First-principles determination of the α - α' interfacial energy in Fe-Cr alloys (<i>7 pages</i>)	195103
Song Lu, Qing-Miao Hu, Rui Yang, Börje Johansson, and Levente Vitos	
Renormalization group and the superconducting susceptibility of a Fermi liquid (<i>8 pages</i>)	195104
S. A. Parameswaran, R. Shankar, and S. L. Sondhi	
Kelvin formula for thermopower (<i>5 pages</i>)	195105
Michael R. Peterson and B. Sriram Shastry	
Multiple-charge transfer and trapping in DNA dimers (<i>9 pages</i>)	195106
Sabine Törnøw, Ralf Bulla, Frithjof B. Anders, and Gertrud Zwicknagl	
First-order liquid-liquid phase transition in dense hydrogen (<i>6 pages</i>)	195107
Winfried Lorenzen, Bastian Holst, and Ronald Redmer	
Enhanced static approximation to the electron self-energy operator for efficient calculation of quasiparticle energies (<i>8 pages</i>)	195108
Wei Kang and Mark S. Hybertsen	
Dynamical mean field theory for manganites (<i>12 pages</i>)	195109
Y.-F. Yang and K. Held	
Lifshitz transition in two-dimensional spin-density wave models (<i>8 pages</i>)	195110
Jie Lin	
Scaling properties of the Anderson model in the Kondo regime studied by $\sigma G \sigma W$ formalism (<i>9 pages</i>)	195111
Catalin D. Spataru	
Magnetic plasmon resonance: Underlying route to plasmonic electromagnetically induced transparency in metamaterials (<i>7 pages</i>)	195112
Yuehui Lu, Hua Xu, Joo Yull Rhee, Won Ho Jang, Byoung Seung Ham, and YoungPak Lee	
Off-critical Luttinger junctions (<i>10 pages</i>)	195113
Brando Bellazzini, Mihail Mintchev, and Paul Sorba	
Electronic structure of pristine and K-doped solid picene: Nonrigid band change and its implication for electron-intramolecular-vibration interaction (<i>5 pages</i>)	195114
H. Okazaki, T. Wakita, T. Muro, Y. Kaji, X. Lee, H. Mitamura, N. Kawasaki, Y. Kubozono, Y. Yamanari, T. Kambe, T. Kato, M. Hirai, Y. Muraoka, and T. Yokoya	
Dynamical mean-field theory for molecular electronics: Electronic structure and transport properties (<i>10 pages</i>)	195115
D. Jacob, K. Haule, and G. Kotliar	
Electronic and optical properties of the $\text{Mg}_{2-x}\text{Fe}_x\text{SiO}_4$ spinel: From band insulator to Mott insulator (<i>10 pages</i>)	195116
Kamil Tokár, Przemysław Piekarczyk, Mariana Derzsi, Paweł T. Jochym, Jan Łażewski, Małgorzata Sternik, Andrzej M. Oleś, and Krzysztof Parlinski	
Search for ferromagnetism in doped semiconductors in the absence of transition metal ions (<i>17 pages</i>)	195117
Erik Nielsen and R. N. Bhatt	
Energy spectrum analysis and finite temperature properties of the Falicov-Kimball model with Hund coupling at half filling (<i>9 pages</i>)	195118
Jakub Wrzodak and Romuald Lemański	

(Continued)

Insulating phases of electrons on a zigzag strip in the orbital magnetic field (7 pages)	195119
Hsin-Hua Lai and Olexei I. Motrunich	
Exact solution for eigenfunction statistics at the center-of-band anomaly in the Anderson localization model (5 pages)	195120
V. E. Kravtsov and V. I. Yudson	
Measurement of strong phonon softening in Cr with and without Fermi-surface nesting by inelastic x-ray scattering (6 pages)	195121
D. Lamago, M. Hoesch, M. Krisch, R. Heid, K.-P. Bohnen, P. Böni, and D. Reznik	
First-principles calculation of electronic and structural properties of $\text{YBa}_2\text{Cu}_3\text{O}_{6+y}$ (13 pages)	195122
Giorgia M. Lopez, Alessio Filippetti, Mauro Mantega, and Vincenzo Fiorentini	
Structure dependence of metallization density in solid atomic hydrogen using dynamical mean field theory (5 pages)	195123
Kazunori Shibata, Takuma Ohashi, Tetsuo Ogawa, and Ryosuke Kodama	
Exchange-correlation potential with a proper long-range behavior for harmonically confined electron droplets (5 pages)	195124
S. Pittalis and E. Räsänen	
Optical conductivity in the vicinity of a quantum critical point (14 pages)	195125
Patrick Bogdanski, Mohammed Halaoui, Andrzej M. Oleś, and Raymond Frésard	
Searching for topological density-wave insulators in multiorbital square-lattice systems (15 pages)	195126
Bohm-Jung Yang and Hae-Young Kee	
Carrier recombination processes and divalent lanthanide spectroscopy in $\text{YPO}_4:\text{Ce}^{3+};L^{3+}$ ($L=\text{Sm},\text{Dy},\text{Tm}$) (7 pages)	195127
P. Dorenbos, A. J. J. Bos, and N. R. J. Poolton	
Method for locating low-energy solutions within DFT+ U (5 pages)	195128
B. Meredig, A. Thompson, H. A. Hansen, C. Wolverton, and A. van de Walle	
NMR evidence for the partially gapped state in $\text{CeOs}_2\text{Al}_{10}$ (5 pages)	195129
C. S. Lue, S. H. Yang, T. H. Su, and Ben-Li Young	
Density matrix renormalization group study of optical conductivity in the one-dimensional Mott insulator Sr_2CuO_3 (5 pages)	195130
Shigetoshi Sota and Takami Tohyama	
Effect of electron-electron interactions on Rashba-like and spin-split systems (19 pages)	195131
A. Alexandradinata and J. E. Hirsch	
Evaluation of the coupling parameters of many-body interactions in $\text{Fe}(110)$ (9 pages)	195132
X. Y. Cui, K. Shimada, Y. Sakisaka, H. Kato, M. Hoesch, T. Oguchi, Y. Aiura, H. Namatame, and M. Taniguchi	
Observation of two charge ordering transitions in the valence-fluctuating EuPtP by resonant x-ray diffraction (5 pages)	195133
T. Inami, S. Michimura, A. Mitsuda, and H. Wada	
Semiconductors I: bulk	
D^- centers in uniaxially stressed Si and in Si/SiO_2 quantum wells (9 pages)	195201
Tomo Chiba, Jun Nakamura, and Akiko Natori	

(Continued)

Large-amplitude chirped coherent phonons in tellurium mediated by ultrafast photoexcited carrier diffusion (7 pages)	195202
N. Kamaraju, Sunil Kumar, M. Anija, and A. K. Sood	
Wurtzite-derived polytypes of kesterite and stannite quaternary chalcogenide semiconductors (8 pages)	195203
Shiyu Chen, Aron Walsh, Ye Luo, Ji-Hui Yang, X. G. Gong, and Su-Huai Wei	
Defect physics of BaCuChF ($Ch=S, Se, Te$) p -type transparent conductors (8 pages)	195204
A. Zakutayev, J. Tate, and G. Schneider	
Observation of antiferromagnetic interlayer exchange coupling in a $Ga_{1-x}Mn_xAs/GaAs:Be/Ga_{1-x}Mn_xAs$ trilayer structure (5 pages)	195205
J. Leiner, H. Lee, T. Yoo, Sanghoon Lee, B. J. Kirby, K. Tivakornsasithorn, X. Liu, J. K. Furdyna, and M. Dobrowolska	
Correlation between structure and physical properties of chalcogenide glasses in the As_xSe_{1-x} system (8 pages)	195206
Guang Yang, Bruno Bureau, Tanguy Rouxel, Yann Gueguen, Ozgur Gulbiten, Claire Roiland, Emmanuel Soignard, Jeffery L. Yarger, Johann Troles, Jean-Christophe Sangleboeuf, and Pierre Lucas	
Effect of filler mass and binding on thermal conductivity of fully filled skutterudites (6 pages)	195207
Mona Zebarjadi, Keivan Esfarjani, Jian Yang, Z. F. Ren, and Gang Chen	
Determining the influence of excited states on current transport in organic light emitting diodes using magnetic field perturbation (6 pages)	195208
W. P. Gillin, Sijie Zhang, N. J. Rolfe, P. Desai, P. Shakya, A. J. Drew, and T. Kreouzis	
Semiconductors II: surfaces, interfaces, microstructures, and related topics	
Large tunable photonic band gaps in nanostructured doped semiconductors (6 pages)	195301
J. Leon and T. Taliercio	
Spin relaxation of free excitons in narrow $GaN/Al_xGa_{1-x}N$ quantum wells (8 pages)	195302
J. Besbas, A. Gadalla, M. Gallart, O. Crégut, B. Hönerlage, P. Gilliot, E. Feltin, J.-F. Carlin, R. Butté, and N. Grandjean	
Coulomb bridge function and the pair-distribution functions of the two-dimensional electron liquid in the quantum regime (5 pages)	195303
M. W. C. Dharma-wardana	
Generalized effective-mass theory of subsurface scanning tunneling microscopy: Application to cleaved quantum dots (5 pages)	195304
M. Roy, P. A. Maksym, D. Bruls, P. Offermans, and P. M. Koenraad	
Manipulation of two spin qubits in a double quantum dot using an electric field (6 pages)	195305
Atsuo Shitade, Motohiko Ezawa, and Naoto Nagaosa	
Manipulation of single electron spin in a GaAs quantum dot through the application of geometric phases: The Feynman disentangling technique (10 pages)	195306
Sanjay Prabhakar, James Raynolds, Akira Inomata, and Roderick Melnik	
Resonance continuum coupling in high-permittivity dielectric metamaterials (12 pages)	195307
Thomas Lepetit, Eric Akmansoy, Jean-Pierre Ganne, and Jean-Michel Lourtioz	
Electronic structures and spin gapless semiconductors in BN nanoribbons with vacancies (5 pages)	195308
Yanfei Pan and Zhongqin Yang	

(Continued)

Coulomb oscillations of indium-doped ZnO nanowire transistors in a magnetic field (<i>5 pages</i>)	195309
Xiulai Xu, Andrew C. Irvine, Yang Yang, Xitian Zhang, and David A. Williams	
Radio frequency pulsed-gate charge spectroscopy on coupled quantum dots (<i>8 pages</i>)	195310
D. Harbusch, S. Manus, H. P. Tranitz, W. Wegscheider, and S. Ludwig	
Fano resonances in current-voltage characteristics of nanowires with embedded quantum dots (<i>5 pages</i>)	195311
A. Sowa-Rykowska and J. Adamowski	
Role of phonons in Josephson oscillations of excitonic and polaritonic condensates (<i>9 pages</i>)	195312
E. B. Magnusson, H. Flayac, G. Malpuech, and I. A. Shelykh	
Electronic states and optical properties of PbSe nanorods and nanowires (<i>16 pages</i>)	195313
A. C. Bartnik, Al. L. Efros, W.-K. Koh, C. B. Murray, and F. W. Wise	
Dephasing of excitons and multiexcitons in undoped and <i>p</i> -doped InAs/GaAs quantum dots-in-a-well (<i>9 pages</i>)	195314
Valentina Cesari, Wolfgang Langbein, and Paola Borri	
Exciton spin relaxation in strongly confining semiconductor quantum dots (<i>9 pages</i>)	195315
E. Tsitsishvili and H. Kalt	
Non-Abelian gauge fields in the gradient expansion: Generalized Boltzmann and Eilenberger equations (<i>11 pages</i>)	195316
C. Gorini, P. Schwab, R. Raimondi, and A. L. Shelankov	
Spin-polarized electroluminescence and spin-dependent photocurrent in hybrid semiconductor/ferromagnetic heterostructures: An asymmetric problem (<i>10 pages</i>)	195317
P. Renucci, V. G. Truong, H. Jaffrès, L. Lombez, P. H. Binh, T. Amand, J. M. George, and X. Marie	
Band offsets and band bending at heterovalent semiconductor interfaces (<i>10 pages</i>)	195318
A. Frey, U. Bass, S. Mahapatra, C. Schumacher, J. Geurts, and K. Brunner	
Modular symmetry and temperature flow of conductivities in quantum Hall systems with varying Zeeman energy (<i>8 pages</i>)	195319
Brian P. Dolan	
Robust magnetic polarons in type-II (Zn,Mn)Te/ZnSe magnetic quantum dots (<i>7 pages</i>)	195320
I. R. Sellers, R. Oszwaldowski, V. R. Whiteside, M. Eginligil, A. Petrou, I. Zutic, W.-C. Chou, W. C. Fan, A. G. Petukhov, S. J. Kim, A. N. Cartwright, and B. D. McCombe	
Intermediate-band solar cells: Influence of band formation on dynamical processes in InAs/GaAs quantum dot arrays (<i>15 pages</i>)	195321
Stanko Tomić	
Nonmonotonic Fano factor and backscattering effects in single-molecule junctions (<i>5 pages</i>)	195322
Maximilian G. Schultz	
Spin relaxation and coherence times for electrons at the Si/SiO ₂ interface (<i>6 pages</i>)	195323
S. Shankar, A. M. Tyryshkin, Jianhua He, and S. A. Lyon	
Chiral topological excitonic insulator in semiconductor quantum wells (<i>6 pages</i>)	195324
Ningning Hao, Ping Zhang, Jian Li, Zhigang Wang, Wei Zhang, and Yupeng Wang	
Time-dependent magnetotransport in an interacting double quantum wire with window coupling (<i>10 pages</i>)	195325
Nzar Rauf Abdullah, Chi-Shung Tang, and Vidar Gudmundsson	

(Continued)

Variational approach to transport in quantum dots (<i>14 pages</i>)	195326
Nicola Lanatà	
Energy spectrum of layered semiconductors in a magnetic field parallel to the layers: Voigt geometry (<i>9 pages</i>)	195327
K. H. Yoo and L. R. Ram-Mohan	
Dispersion and polarization conversion of whispering gallery modes in nanowires (<i>8 pages</i>)	195328
G. Pavlovic, G. Malpuech, and N. A. Gippius	
Theory of transport properties of the sixfold-degenerate two-dimensional electron gas at the H-Si(111) surface (<i>5 pages</i>)	195329
A. Gold	
Optical characterization and selective addressing of the resonant modes of a micropillar cavity with a white light beam (<i>7 pages</i>)	195330
Georgios Ctistis, Alex Hartsuiker, Edwin van der Pol, Julien Claudon, Willem L. Vos, and Jean-Michel Gérard	
Surface physics, nanoscale physics, low-dimensional systems	
Nitrogen at the Si-nanocrystal/SiO ₂ interface and its influence on luminescence and interface defects (<i>9 pages</i>)	195401
Daniel Hiller, Silvana Goetze, Frans Munnik, Mihaela Jivanescu, Jürgen W. Gerlach, Jürgen Vogt, Eckhard Pippel, Nikolai Zakharov, Andre Stesmans, and Margit Zacharias	
Structural phases of strained LaAlO ₃ driven by octahedral tilt instabilities (<i>5 pages</i>)	195402
Alison J. Hatt and Nicola A. Spaldin	
Temperature-dependent resistivity of suspended graphene (<i>11 pages</i>)	195403
Eros Mariani and Felix von Oppen	
Intrinsic electron glassiness in strongly localized Be films (<i>5 pages</i>)	195404
Z. Ovadyahu, Y. M. Xiong, and P. W. Adams	
Hollow C ₃ N ₄ nanoclusters from first principles (<i>5 pages</i>)	195405
Guillermo Román-Pérez, Félix Zamora, and José M. Soler	
Plasmon-phonon coupling in graphene (<i>5 pages</i>)	195406
E. H. Hwang, Rajdeep Sensarma, and S. Das Sarma	
First-principles investigation of BaFe ₂ As ₂ (001) (<i>7 pages</i>)	195407
G. Profeta, C. Franchini, K. A. I. L. W. Gamalath, and A. Continenza	
Quantum delocalization and correlation effects in one-dimensional chains of adsorbed hydrogen atoms (<i>10 pages</i>)	195408
Benjamin Berberich and Axel Groß	
Spin Aharonov-Bohm effect and topological spin transistor (<i>8 pages</i>)	195409
Joseph Maciejko, Eun-Ah Kim, and Xiao-Liang Qi	
Theoretical study of interface structure and energetics in semicoherent Fe(001)/MX(001) systems (<i>M</i> =Sc, Ti, V, Cr, Zr, Nb, Hf, Ta; <i>X</i> =C or N) (<i>13 pages</i>)	195410
Dan H. R. Fors and Göran Wahnström	
First-principles calculations of graphene nanoribbons in gaseous environments: Structural and electronic properties (<i>6 pages</i>)	195411
M. Vanin, J. Gath, K. S. Thygesen, and K. W. Jacobsen	

(Continued)



☞ Observation of excitonic effects in metallic single-walled carbon nanotubes (6 pages)	195412
Patrick May, Hagen Telg, Guofang Zhong, John Robertson, Christian Thomsen, and Janina Maultzsch	
☞ Lattice dynamics of a rotor-stator molecular crystal: Fullerene-cubane $C_{60} \cdot C_8H_8$ (10 pages)	195413
Colin Bousige, Stéphane Rols, Julien Cambedouzou, Bart Verberck, Sándor Pekker, Éva Kováts, Gábor Durkó, István Jalsovsky, Éric Pellegrini, and Pascale Launois	
Hot carrier diffusion in graphene (5 pages)	195414
Brian A. Ruzicka, Shuai Wang, Lalani K. Werake, Ben Weintrub, Kian Ping Loh, and Hui Zhao	
Determination of the Ge-nanocrystal/ SiO_2 matrix interface trap density from the small signal response of charge stored in the nanocrystals (12 pages)	195415
R. Peibst, J. S. de Sousa, and K. R. Hofmann	
Channel saturation and conductance quantization in single-atom gold constrictions (11 pages)	195416
Jason N. Armstrong, R. M. Schaub, Susan Z. Hua, and Harsh Deep Chopra	
Bulk metals with helical surface states (11 pages)	195417
Doron L. Bergman and Gil Refael	
Two- and three-dimensional growth of Bi on <i>i</i> -Al-Pd-Mn studied using medium-energy ion scattering (9 pages)	195418
T. C. Q. Noakes, P. Bailey, C. F. McConville, M. Draxler, M. Walker, M. G. Brown, A. Hentz, D. P. Woodruff, T. A. Lograsso, A. R. Ross, J. A. Smerdon, L. Leung, and R. McGrath	
Strongly coupled quantum dot-metal nanoparticle systems: Exciton-induced transparency, discontinuous response, and suppression as driven quantum oscillator effects (10 pages)	195419
Ryan D. Artuso and Garnett W. Bryant	
Layer-dependent Debye temperature and thermal expansion of Ru(0001) by means of high-energy resolution core-level photoelectron spectroscopy (9 pages)	195420
Eugenio Ferrari, Lorenzo Galli, Elisa Miniussi, Maurizio Morri, Mirko Panighel, Maria Ricci, Paolo Lacovig, Silvano Lizzit, and Alessandro Baraldi	
Equilibrium shapes and triple line energy of epitaxial gold nanocrystals supported on $TiO_2(110)$ (10 pages)	195421
Shankar Sivaramakrishnan, Jianguo Wen, Michael. E. Scarpelli, Benjamin J. Pierce, and Jian-Min Zuo	
Suppression of thermal conductivity in graphene nanoribbons with rough edges (9 pages)	195422
Alexander V. Savin, Yuri S. Kivshar, and Bambi Hu	
Characteristics of bamboo defects in peapod-grown double-walled carbon nanotubes (8 pages)	195423
V. Zólyomi, J. Koltai, D. Visontai, L. Oroszlány, Á. Ruzsnyák, I. László, and J. Kürti	
Infrared spectra of individual semiconducting single-walled carbon nanotubes: Testing the scaling of transition energies for large diameter nanotubes (5 pages)	195424
Matthew Y. Sfeir, James A. Misewich, Sami Rosenblatt, Yang Wu, Christophe Voisin, Hugen Yan, Stéphane Berciaud, Tony F. Heinz, Bhupesh Chandra, Robert Caldwell, Yuyao Shan, James Hone, and G. L. Carr	
Resistance anomaly near phase transition in confined ferromagnetic nanowires (9 pages)	195425
M. Venkata Kamalakar and A. K. Raychaudhuri	
Anomalous criticality at the $n=0$ quantum Hall transition in graphene: The role of disorder preserving chiral symmetry (7 pages)	195426
Tohru Kawarabayashi, Takahiro Morimoto, Yasuhiro Hatsugai, and Hideo Aoki	

(Continued)

Ground state and infrared response of triple concentric quantum ring structures (9 pages)	195427
José María Escartín, Manuel Barranco, and Martí Pi	
Dynamic screening and low-energy collective modes in bilayer graphene (11 pages)	195428
Rajdeep Sensarma, E. H. Hwang, and S. Das Sarma	
Long electron dephasing length and disorder-induced spin-orbit coupling in indium tin oxide nanowires (6 pages)	195429
Yao-Wen Hsu, Shao-Pin Chiu, An-Shao Lien, and Juhn-Jong Lin	
Energy- and angle-dependent threshold photoemission magnetic circular dichroism from an ultrathin Co/Pt(111) film (11 pages)	195430
K. Hild, G. Schönhense, H. J. Elmers, T. Nakagawa, T. Yokoyama, K. Tarafder, and P. M. Oppeneer	
Electronic structure of LiCoO ₂ thin films: A combined photoemission spectroscopy and density functional theory study (16 pages)	195431
David Ensling, Andreas Thissen, Stefan Laubach, Peter C. Schmidt, and Wolfram Jaegermann	
Interplay of RKKY, Zeeman, and Dzyaloshinskii-Moriya interactions and the nonzero average spin chirality in Dy/Y multilayer structures (8 pages)	195432
S. V. Grigoriev, D. Lott, Yu. O. Chetverikov, A. T. D. Grünwald, R. C. C. Ward, and A. Schreyer	
Simulation method of Kelvin probe force microscopy at nanometer range and its application (9 pages)	195433
A. Masago, M. Tsukada, and M. Shimizu	
Assisted self-healing in ripped graphene (4 pages)	195434
L. Bläckberg, A. Ringbom, H. Sjöstrand, and M. Klintonberg	
Spin-1 Kitaev model in one dimension (11 pages)	195435
Diptiman Sen, R. Shankar, Deepak Dhar, and Kabir Ramola	
First-principles investigation of graphene fluoride and graphane (6 pages)	195436
O. Leenaerts, H. Peelaers, A. D. Hernández-Nieves, B. Partoens, and F. M. Peeters	
Optical phonon lineshapes and transport in metallic carbon nanotubes under high bias voltage (15 pages)	195437
Jürgen Dietel and Hagen Kleinert	
Topological insulating phases in monolayer and bilayer graphene: An effective action approach (9 pages)	195438
Alberto Cortijo, Adolfo G. Grushin, and María A. H. Vozmediano	
Formation, structure, and bonding of boron-vacancy pairs in graphene: A first-principles study (6 pages)	195439
Kyoung Eun Kweon and Gyeong S. Hwang	
Microwave-driven ferromagnet-topological-insulator heterostructures: The prospect for giant spin battery effect and quantized charge pump devices (6 pages)	195440
Farzad Mahfouzi, Branislav K. Nikolić, Son-Hsien Chen, and Ching-Ray Chang	
Percolation of thermal conductivity in amorphous fluorocarbons (7 pages)	195441
Marc G. Ghossoub, Jung-Hyun Lee, Oksen T. Baris, David G. Cahill, and Sanjiv Sinha	
Calculating phase-coherent quantum transport in nanoelectronics with <i>ab initio</i> quasiatomic orbital basis set (18 pages)	195442
Xiaofeng Qian, Ju Li, and Sidney Yip	
Doping of the step-edge Si chain: Ag on a Si(557)-Au surface (7 pages)	195443
M. Krawiec and M. Jałochowski	
Long-range interactions in carbon atomic chains (5 pages)	195444
S. Cahangirov, M. Topsakal, and S. Ciraci	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 82, NUMBER 19

NOVEMBER 2010-15(I)

Elastic properties of graphene flakes: Boundary effects and lattice vibrations (<i>12 pages</i>)	195445
S. Bera, A. Arnold, F. Evers, R. Narayanan, and P. Wölfle	
Negative permeability due to exchange spin-wave resonances in thin magnetic films with surface pinning (<i>10 pages</i>)	195446
R. V. Mikhaylovskiy, E. Hendry, and V. V. Kruglyak	
Effect of magnetic Gd adatoms on the transport properties of ultrathin gold films (<i>5 pages</i>)	195447
M. Alemani, A. Huegel, E. Helgren, D. R. Queen, and F. Hellman	

COMMENTS

Comment on “Screening in gated bilayer graphene” (<i>4 pages</i>)	197401
M. M. Fogler and E. McCann	

ERRATA

Erratum: Rigorous construction of ground state correlations in graphene: Renormalization of the velocities and Ward identities [Phys. Rev. B 79 , 201403(R) (2009)] (<i>2 pages</i>)	199901(E)
Alessandro Giuliani and Vieri Mastropietro	
Publisher’s Note: Competing orders in the generalized Hund chain model at half filling [Phys. Rev. B 82 , 155134 (2010)] (<i>1 page</i>)	199902(E)
H. Nonne, E. Boulat, S. Capponi, and P. Lecheminant	
Publisher’s Note: Intrinsic electron glassiness in strongly localized Be films [Phys. Rev. B 82 , 195404 (2010)] (<i>1 page</i>)	199903(E)
Z. Ovadyahu, Y. M. Xiong, and P. W. Adams	