

Nonadiabatic chemical-to-electrical energy conversion in heterojunction nanostructures (<i>4 pages</i>)	205443
Eduard G. Karpov and Ievgen Nedrygailov	
Electronic band gaps and transport properties in graphene superlattices with one-dimensional periodic potentials of square barriers (<i>9 pages</i>)	205444
Li-Gang Wang and Shi-Yao Zhu	
Magnetotransport in disordered graphene exposed to ozone: From weak to strong localization (<i>6 pages</i>)	205445
J. Moser, H. Tao, S. Roche, F. Alzina, C. M. Sotomayor Torres, and A. Bachtold	
Correlation and dimensional effects of trions in carbon nanotubes (<i>7 pages</i>)	205446
Troels F. Rønnow, Thomas G. Pedersen, and Horia D. Cornean	

ERRATA

Publisher's Note: Hierarchy of relevant couplings in perturbative renormalization group transformations [Phys. Rev. B 81 , 121107(R) (2010)] (<i>1 page</i>)	209901(E)
Hong-Yan Shih, Wen-Min Huang, Sze-Bi Hsu, and Hsiu-Hau Lin	
Erratum: <i>Ab initio</i> lattice dynamics and thermodynamics of RuO ₂ (110) surfaces [Phys. Rev. B 81 , 081405(R) (2010)] (<i>1 page</i>)	209902(E)
Klaus-Peter Bohnen, Rolf Heid, and Omar de la Peña Seaman	
Publisher's Note: Ability to discern the splitting between longitudinal and transverse plasmon resonances in Au compared to Ag nanoparticles in close-packed planar arrays [Phys. Rev. B 81 , 205405 (2010)] (<i>1 page</i>)	209903(E)
Peng Yang, Hervé Portalès, and Marie-Paule Pileni	



Symmetry properties of vibrational modes in graphene nanoribbons (<i>9 pages</i>)	205426
Roland Gillen, Marcel Mohr, and Janina Maultzsch	
Monte Carlo simulations of argon adsorption in nanoscopic linear channels (<i>11 pages</i>)	205427
Marco Da Re, Sonja Grubišić, and Francesco Ancilotto	
Asymmetric relief of surface stress induced by a chiral adsorbate: Alaninate adsorption on Cu(110) (<i>7 pages</i>)	205428
M. Blanco-Rey and G. Jones	
Zero-energy states of massive Dirac equation in magnetic fields (<i>5 pages</i>)	205429
Igor F. Herbut	
Electroluminescence spectra in weakly coupled single-molecule junctions (<i>9 pages</i>)	205430
J. S. Seldenthuis, H. S. J. van der Zant, M. A. Ratner, and J. M. Thijssen	
Doping graphene by adsorption of polar molecules at the oxidized zigzag edges (<i>7 pages</i>)	205431
Julia Berashevich and Tapash Chakraborty	
Logarithmic scaling of Lyapunov exponents in disordered chiral two-dimensional lattices (<i>5 pages</i>)	205432
P. Markoš and L. Schweitzer	
Structural, electronic, and magnetic features of platinum alloy strings templated on a boron-doped carbon nanotube (<i>8 pages</i>)	205433
Wei An and C. Heath Turner	
Structure of chlorine on Ag(111): Evidence of the (3×3) reconstruction (<i>5 pages</i>)	205434
B. V. Andryushechkin, V. V. Cherkez, E. V. Gladchenko, G. M. Zhidomirov, B. Kierren, Y. Fagot-Revurat, D. Malterre, and K. N. Eltsov	
Reversible fluorination of graphene: Evidence of a two-dimensional wide bandgap semiconductor (<i>5 pages</i>)	205435
S.-H. Cheng, K. Zou, F. Okino, H. R. Gutierrez, A. Gupta, N. Shen, P. C. Eklund, J. O. Sofo, and J. Zhu	
Quasiparticle self-consistent GW calculation of the work functions of Al(111), Al(100), and Al(110) (<i>7 pages</i>)	205436
Sergey V. Faleev, Oleg N. Mryasov, and Thomas R. Mattsson	
Current-voltage (<i>I-V</i>) characteristics of armchair graphene nanoribbons under uniaxial strain (<i>5 pages</i>)	205437
M. Topsakal, V. M. K. Bagci, and S. Ciraci	
Scattering and lifetime broadening of quantum well states in Pb films on Ag(111) (<i>6 pages</i>)	205438
Michael Becker and Richard Berndt	
Impact of ambient oxygen on the surface structure of α -Cr ₂ O ₃ (0001) (<i>8 pages</i>)	205439
O. Bikondoa, W. Moritz, X. Torrelles, H. J. Kim, G. Thornton, and R. Lindsay	
Calculation of images of oriented C ₆₀ molecules using molecular orbital theory (<i>13 pages</i>)	205440
Ian D. Hands, Janette L. Dunn, and Colin A. Bates	
Optimized Tersoff and Brenner empirical potential parameters for lattice dynamics and phonon thermal transport in carbon nanotubes and graphene (<i>6 pages</i>)	205441
L. Lindsay and D. A. Broido	
Morphology of vacancy aggregates in carbon nanotubes: Thinning control due to interwall interaction (<i>6 pages</i>)	205442
Mitsuru Nishikawa, Jun-ichi Iwata, and Atsushi Oshiyama	

(Continued)

Interband and plasma excitations in single-walled carbon nanotubes and graphite in inelastic x-ray and electron scattering (<i>5 pages</i>)	205410
C. Kramberger, E. Einarsson, S. Huotari, T. Thurakitserree, S. Maruyama, M. Knupfer, and T. Pichler	
Detection of finite-frequency photoassisted shot noise with a resonant circuit (<i>12 pages</i>)	205411
D. Chevallier, T. Jonckheere, E. Paladino, G. Falci, and T. Martin	
Role of the self-interaction error in studying chemisorption on graphene from first-principles (<i>5 pages</i>)	205412
Simone Casolo, Espen Flage-Larsen, Ole Martin Løvvik, George R. Darling, and Gian Franco Tantardini	
Effect of a Coulombic dot-lead coupling on the dynamics of a quantum dot (<i>7 pages</i>)	205413
Florian Elste, David R. Reichman, and Andrew J. Millis	
Reversing the shape transition of InAs/GaAs (001) quantum dots by etching-induced lateral In segregation (<i>4 pages</i>)	205414
T. Lutz, T. Suzuki, G. Costantini, L. Wang, S. Kiravittaya, A. Rastelli, O. G. Schmidt, and K. Kern	
Electronic structure and molecular orientation of pentacene thin films on ferromagnetic $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ (<i>6 pages</i>)	205415
Fenghong Li, Patrizio Graziosi, Qun Tang, Yiqiang Zhan, Xianjie Liu, Valentin Dediu, and Mats Fahlman	
RKKY coupling in graphene (<i>8 pages</i>)	205416
Annica M. Black-Schaffer	
Electronic and magnetic properties of graphane nanoribbons (<i>8 pages</i>)	205417
H. Şahin, C. Ataca, and S. Ciraci	
Large-scale density functional calculations of the surface properties of the Wigner crystal (<i>12 pages</i>)	205418
R. Cortes-Huerto and P. Ballone	
Robust Dirac point in honeycomb-structure nanoribbons with zigzag edges (<i>5 pages</i>)	205419
Bo Xu, Jiang Yin, Hongming Weng, Yidong Xia, Xiangang Wan, and Zhiguo Liu	
Structure and magnetic properties of curved graphene networks and the effects of bromine and potassium adsorption (<i>12 pages</i>)	205420
Kazuyuki Takai, Tsuyoshi Suzuki, Toshiaki Enoki, Hirotomo Nishihara, and Takashi Kyotani	
Dielectric switching of the nature of excited singlet state in a donor-acceptor-type polyfluorene copolymer (<i>7 pages</i>)	205421
Annamaria Petrozza, Frédéric Laquai, Ian A. Howard, Ji-Seon Kim, and Richard H. Friend	
Electronic structure of the thallium-induced 2×1 reconstruction on Si(001) (<i>5 pages</i>)	205422
P. E. J. Eriksson, Kazuyuki Sakamoto, and R. I. G. Uhrberg	
Terahertz conductivity peak in composite materials containing carbon nanotubes: Theory and interpretation of experiment (<i>6 pages</i>)	205423
G. Ya. Slepyan, M. V. Shuba, S. A. Maksimenko, C. Thomsen, and A. Lakhtakia	
Transition metal adatom and dimer adsorbed on graphene: Induced magnetization and electronic structures (<i>9 pages</i>)	205424
Chao Cao, Min Wu, Jianzhong Jiang, and Hai-Ping Cheng	
Phase of the transmission amplitude for a quantum dot embedded in the arm of an electronic Mach-Zehnder interferometer (<i>4 pages</i>)	205425
L. V. Litvin, A. Helzel, H.-P. Tranitz, W. Wegscheider, and C. Strunk	

(Continued)

Charge carrier mobility in disordered organic blends for photovoltaics (7 pages)	205318
L. J. A. Koster	
Correlated time-dependent transport through a two-dimensional quantum structure (11 pages)	205319
Vidar Gudmundsson, Chi-Shung Tang, Olafur Jonasson, Valeriu Moldoveanu, and Andrei Manolescu	
Resonant generation of coherent LO phonons by charge oscillations in a biased quantum well (7 pages)	205320
T. Papenkort, T. Kuhn, and V. M. Axt	
Thermoelectric and thermal rectification properties of quantum dot junctions (10 pages)	205321
David M.-T. Kuo and Yia-chung Chang	
Metallization of ZnO(10 $\bar{1}$ 0) by adsorption of hydrogen, methanol, and water: Angle-resolved photoelectron spectroscopy (6 pages)	205322
Kenichi Ozawa and Kazuhiko Mase	
Temperature dependence of the nonlocal voltage in an Fe/GaAs electrical spin-injection device (5 pages)	205323
G. Salis, A. Fuhrer, R. R. Schlittler, L. Gross, and S. F. Alvarado	
Model for the electron distribution in modulation-doped heterostructures with high density of surface states (10 pages)	205324
Rolf R. Gerhardt	
Surface physics, nanoscale physics, low-dimensional systems	
T-shaped molecular heat pump (4 pages)	205401
Wei-Rong Zhong and Bambi Hu	
External stress-induced chemical reactivity of O ₂ on Si(001) (5 pages)	205402
Masanori Yata	
Giant inelastic tunneling in epitaxial graphene mediated by localized states (5 pages)	205403
J. Červenka, K. van de Ruit, and C. F. J. Flipse	
Polarity of ultrathin MgO(111) films deposited on a metal substrate (8 pages)	205404
Jacek Goniakowski, Livia Giordano, and Claudine Noguera	
Ability to discern the splitting between longitudinal and transverse plasmon resonances in Au compared to Ag nanoparticles in close-packed planar arrays (8 pages)	205405
Peng Yang, Hervé Portalès, and Marie-Paule Pileni	
High-capacity hydrogen storage in Al-adsorbed graphene (7 pages)	205406
Z. M. Ao and F. M. Peeters	
☞ Bulk Fermi surface coexistence with Dirac surface state in Bi ₂ Se ₃ : A comparison of photoemission and Shubnikov-de Haas measurements (5 pages)	205407
James G. Analytis, Jiun-Haw Chu, Yulin Chen, Felipe Corredor, Ross D. McDonald, Z. X. Shen, and Ian R. Fisher	
Ground-state-cooling vibrations of suspended carbon nanotubes with constant electron current (9 pages)	205408
Stefano Zippilli, Adrian Bachtold, and Giovanna Morigi	
Tuning the electronic properties of corrugated graphene: Confinement, curvature, and band-gap opening (8 pages)	205409
Victor Atanasov and Avadh Saxena	

(Continued)

Direct photogeneration of biexcitons via virtual single-exciton and biexciton states in PbSe quantum dots (16 pages)	205302
Leonardo Silvestri and Vladimir M. Agranovich	
Signatures of exchange correlations in the thermopower of quantum dots (13 pages)	205303
Gabriel Billings, A. Douglas Stone, and Y. Alhassid	
Theoretical study of nuclear spin polarization and depolarization in self-assembled quantum dots (13 pages)	205304
Chia-Wei Huang and Xuedong Hu	
Counting statistics in multistable systems (5 pages)	205305
Gernot Schaller, Gerold Kießlich, and Tobias Brandes	
Self-consistent calculation of electric potentials in Hall devices (6 pages)	205306
Tobias Kramer, Viktor Krueckl, Eric J. Heller, and Robert E. Parrott	
Interface state recombination in organic solar cells (12 pages)	205307
R. A. Street, M. Schoendorf, A. Roy, and J. H. Lee	
Finite size and intrinsic field effect on the polar-active properties of ferroelectric-semiconductor heterostructures (15 pages)	205308
A. N. Morozovska, E. A. Eliseev, S. V. Svechnikov, A. D. Krutov, V. Y. Shur, A. Y. Borisevich, P. Maksymovych, and S. V. Kalinin	
Atomic structures and energetics of 90° dislocation cores in Ge films on Si(001) (5 pages)	205309
Yoshitaka Fujimoto and Atsushi Oshiyama	
☞ Nature of step-edge barriers for small organic molecules (20 pages)	205310
Joseph E. Goose, Eric L. First, and Paulette Clancy	
Simplified density-matrix model applied to three-well terahertz quantum cascade lasers (18 pages)	205311
E. Dupont, S. Fatholouloumi, and H. C. Liu	
Mott transitions of exciton polaritons and indirect excitons in a periodic potential (13 pages)	205312
Tim Byrnes, Patrik Recher, and Yoshihisa Yamamoto	
☞ Clausius-Clapeyron relations for first-order phase transitions in bilayer quantum Hall systems (11 pages)	205313
Yue Zou (邹悦), Gil Refael, Ady Stern, and J. P. Eisenstein	
Beating of Friedel oscillations induced by spin-orbit interaction (5 pages)	205314
S. M. Badalyan, A. Matos-Abiague, G. Vignale, and J. Fabian	
Heterogeneous confinement in laterally coupled InGaAs/GaAs quantum dot molecules under lateral electric fields (7 pages)	205315
J. Peng, C. Hermannstädter, M. Witzany, M. Heldmaier, L. Wang, S. Kiravittaya, A. Rastelli, O. G. Schmidt, P. Michler, and G. Bester	
Influence of quantum dot concentration on Förster resonant energy transfer in monodispersed nanocrystal quantum dot monolayers (10 pages)	205316
Manuela Lunz, A. Louise Bradley, Wei-Yu Chen, Valerie A. Gerard, Stephen J. Byrne, Yuri K. Gun'ko, Vladimir Lesnyak, and Nikolai Gaponik	
Suboxide interface in disproportionating α -SiO studied by x-ray Raman scattering (7 pages)	205317
A. Sakko, C. Sternemann, Ch. J. Sahle, H. Sternemann, O. M. Feroughi, H. Conrad, F. Djurabekova, A. Hohl, G. T. Seidler, M. Tolan, and K. Hämäläinen	

(Continued)

Semiconductors I: bulk

Hydrostatic deformation potentials and the question of exciton binding energies and splittings in aluminium nitride (7 pages)	205201
Bernard Gil	
Evidence for carrier-mediated magnetism in Mn-doped ZnO thin films (5 pages)	205202
Devajyoti Mukherjee, Tara Dhakal, Hariharan Srikanth, Pritish Mukherjee, and Sarath Witanachchi	
Hall hole mobility in boron-doped homoepitaxial diamond (7 pages)	205203
J. Pernot, P. N. Volpe, F. Omnès, P. Muret, V. Mortet, K. Haenen, and T. Teraji	
Valence band study of thermoelectric Zintl-phase SrZn_2Sb_2 and YbZn_2Sb_2 : X-ray photoelectron spectroscopy and density functional theory (7 pages)	205204
Espen Flage-Larsen, Spyros Diplas, Øystein Prytz, Eric S. Toberer, and Andrew F. May	
Full-zone analysis of relativistic spin splitting at band anticrossings: The case of zinc-blende semiconductors (9 pages)	205205
Athanasios N. Chantis, Niels E. Christensen, Axel Svane, and Manuel Cardona	
Embedded magnetic phases in (Ga,Fe)N: Key role of growth temperature (11 pages)	205206
A. Navarro-Quezada, W. Stefanowicz, Tian Li, B. Faina, M. Rovezzi, R. T. Lechner, T. Devillers, F. d'Acapito, G. Bauer, M. Sawicki, T. Dietl, and A. Bonanni	
Off-center rattling modes and glasslike thermal conductivity in the type-I clathrate $\text{Ba}_8\text{Ga}_{16}\text{Sn}_{30}$ (5 pages)	205207
K. Suekuni, Y. Takasu, T. Hasegawa, N. Ogita, M. Udagawa, M. A. Avila, and T. Takabatake	
Four-wave mixing theory for two-photon generation of excitons in thin films of Cu_2O (9 pages)	205208
I. V. Belousov, J. B. Ketterson, and Y. Sun	
Generalized Koopmans density functional calculations reveal the deep acceptor state of N_O in ZnO (5 pages)	205209
Stephan Lany and Alex Zunger	
Interplay of epitaxial strain and perpendicular magnetic anisotropy in insulating ferromagnetic $\text{Ga}_{1-x}\text{Mn}_x\text{P}_{1-y}\text{N}_y$ (10 pages)	205210
P. R. Stone, L. Dreher, J. W. Beeman, K. M. Yu, M. S. Brandt, and O. D. Dubon	
Electronic structure of indium selenide probed by magnetoabsorption spectroscopy under high pressure (10 pages)	205211
Marius Millot, Jean-Marc Broto, Sylvie George, Jesús González, and Alfredo Segura	
Superparamagnetism in MgO-based magnetic tunnel junctions with a thin pinned ferromagnetic electrode (5 pages)	205212
J. F. Feng, J. Y. Chen, M. Venkatesan, G. Feng, X. F. Han, and J. M. D. Coey	
Cinnabar and SC16 high-pressure phases of ZnSe: An <i>ab initio</i> study (9 pages)	205213
A. Breidi, A. V. Postnikov, and F. El Haj Hassan	
Defect physics of CuGaS_2 (8 pages)	205214
Christine L. Bailey, Leandro Liborio, Giuseppe Mallia, Stanko Tomić, and Nicholas M. Harrison	
Semiconductors II: surfaces, interfaces, microstructures, and related topics	
Theoretical investigation of an intermediate in the STM tip-induced atomic process on H/Si(100) surfaces (7 pages)	205301
Q. H. Yuan, Q. S. Li, K. D. Wang, and Z. F. Liu	

(Continued)

Interaction-induced Fermi-surface renormalization in the t_1-t_2 Hubbard model close to the Mott-Hubbard transition (6 pages)	205109
Luca F. Tocchio, Federico Becca, and Claudius Gros	
☞ Theory of non-Abelian Fabry-Perot interferometry in topological insulators (11 pages)	205110
Johan Nilsson and A. R. Akhmerov	
Electronic structure and anomalous band-edge absorption feature in multiferroic MnWO_4 : An optical spectroscopic study (7 pages)	205111
Woo Seok Choi, K. Taniguchi, S. J. Moon, S. S. A. Seo, T. Arima, H. Hoang, I.-S. Yang, T. W. Noh, and Y. S. Lee	
Negative effective permeability at optical frequencies produced by rings of plasmonic dimers (7 pages)	205112
D. K. Morits and C. R. Simovski	
First-principles determination of charge and orbital interactions in Fe_3O_4 (6 pages)	205113
Fei Zhou (周非) and Gerbrand Ceder	
Dual character of magnetism in EuFe_2As_2 : Optical spectroscopic and density-functional calculation study (5 pages)	205114
S. J. Moon, J. H. Shin, D. Parker, W. S. Choi, I. I. Mazin, Y. S. Lee, J. Y. Kim, N. H. Sung, B. K. Cho, S. H. Khim, J. S. Kim, K. H. Kim, and T. W. Noh	
Topological insulators on the decorated honeycomb lattice (6 pages)	205115
Andreas Rüegg, Jun Wen, and Gregory A. Fiete	
Effect of pressure on the electron spin resonance of a heavy-fermion metal (7 pages)	205116
J. Sichelschmidt, J. Wykhoff, T. Gruner, C. Krellner, C. Klingner, C. Geibel, F. Steglich, H.-A. Krug von Nidda, D. V. Zakharov, A. Loidl, and I. Fazlizhanov	
Spectral signatures of the BCS-BEC crossover in the excitonic insulator phase of the extended Falicov-Kimball model (11 pages)	205117
Van-Nham Phan, Klaus W. Becker, and Holger Fehske	
Alignment of defect levels and band edges through hybrid functionals: Effect of screening in the exchange term (12 pages)	205118
Hannu-Pekka Komsa, Peter Broqvist, and Alfredo Pasquarello	
Pressure-induced high- T_c superconducting phase in FeSe : Correlation between anion height and T_c (6 pages)	205119
H. Okabe, N. Takeshita, K. Horigane, T. Muranaka, and J. Akimitsu	
☞ Threshold singularities in the one-dimensional Hubbard model (19 pages)	205120
Fabian H. L. Essler	
Origin of coexisting large Seebeck coefficient and metallic conductivity in the electron doped SrTiO_3 and KTaO_3 (6 pages)	205121
Hidetomo Usui, Shinsuke Shibata, and Kazuhiko Kuroki	
Angular dependence of the Fermi surface cross-section area and magnetoresistance in quasi-two-dimensional metals (11 pages)	205122
P. D. Grigoriev	
Electronic structure of single-layered undoped cuprates from hybrid density functional theory (12 pages)	205123
Pablo Rivero, Ibério de P.R. Moreira, and Francesc Illas	

(Continued)