

Quantum size effect driven thermal decomposition of Ag films on Fe(100) in the presence of pinhole-growth morphological defects (10 pages)	045426
K. L. Man, Z. Q. Qiu, and M. S. Altman	
Surface electromagnetic waves at an anisotropically conducting artificial interface (7 pages)	045427
Yu. O. Averkov and V. M. Yakovenko	
 Two-body problem in graphene (12 pages)	045428
J. Sabio, F. Sols, and F. Guinea	
Load transfer between cross-linked walls of a carbon nanotube (7 pages)	045429
Alexandre F. Fonseca, Tammie Borders, Ray H. Baughman, and Kyeongjae Cho	
Splitting of the zero-energy edge states in bilayer graphene (10 pages)	045430
Matheus P. Lima, Antônio J. R. da Silva, and A. Fazzio	
Simplified model for the energy levels of quantum rings in single layer and bilayer graphene (9 pages)	045431
M. Zarenia, J. Milton Pereira, A. Chaves, F. M. Peeters, and G. A. Farias	
Interaction of molecules with localized surface plasmons in metallic nanoparticles (11 pages)	045432
T. J. Davis, D. E. Gómez, and K. C. Vernon	
Oxygen atoms and molecules at $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ surfaces (10 pages)	045433
Walter A. Harrison	

ERRATA

Publisher's Note: Polarization-induced renormalization of molecular levels at metallic and semiconducting surfaces [Phys. Rev. B 80 , 245427 (2009)] (1 page)	049901(E)
J. M. Garcia-Lastra, C. Rostgaard, A. Rubio, and K. S. Thygesen	
Erratum: Three-electron anisotropic quantum dots in variable magnetic fields: Exact results for excitation spectra, spin structures, and entanglement [Phys. Rev. B 76 , 245310 (2007)] (1 page)	049902(E)
Yuesong Li, Constantine Yannouleas, and Uzi Landman	
Erratum: Rainbow scattering of argon from 2H-W(100) [Phys. Rev. B 80 , 115404 (2009)] (1 page)	049903(E)
Eli Pollak and Jörg Tatchen	
Publisher's Note: Zero-field spin splitting and spin-dependent broadening in high-mobility $\text{InSb}/\text{In}_{1-x}\text{Al}_x\text{Sb}$ asymmetric quantum well heterostructures [Phys. Rev. B 79 , 235333 (2009)] (1 page)	049904(E)
A. M. Gilbertson, W. R. Branford, M. Fearn, L. Buckle, P. D. Buckle, T. Ashley, and L. F. Cohen	

Microstructure of a Cu film grown on bcc Ta (100) by large-scale molecular-dynamics simulations (13 pages)	045410
Ivan Lazić, Peter Klaver, and Barend Thijsse	
Photoluminescence polarization properties of single GaN nanowires containing $\text{Al}_x\text{Ga}_{1-x}\text{N}$ /GaN quantum discs (9 pages)	045411
L. Rigutti, M. Tchernycheva, A. De Luna Bugallo, G. Jacopin, F. H. Julien, F. Furtmayr, M. Stutzmann, M. Eickhoff, R. Songmuang, and F. Fortuna	
Tunneling conductance of graphene ferromagnet-insulator-superconductor junctions (12 pages)	045412
Ya-Fen Hsu and Guang-Yu Guo	
Thermal conductivity and phonon transport in empty and water-filled carbon nanotubes (7 pages)	045413
John A. Thomas, Ryan M. Iutzi, and Alan J. H. McGaughey	
Effects of magnetism and electric field on the energy gap of bilayer graphene nanoflakes (6 pages)	045414
Bhagawan Sahu, Hongki Min, and Sanjay K. Banerjee	
Growth direction and morphology of ZnO nanobelts revealed by combining <i>in situ</i> atomic force microscopy and polarized Raman spectroscopy (5 pages)	045415
Marcel Lucas, Zhong Lin Wang, and Elisa Riedo	
Complex behavior in a simple system: Low-temperature Ag/Ag(100) growth revisited (8 pages)	045416
Yunsic Shim and Jacques G. Amar	
AFM dissipation topography of soliton superstructures in adsorbed overlayers (5 pages)	045417
Carlotta Negri, Nicola Manini, Andrea Vanossi, Giuseppe E. Santoro, and Erio Tosatti	
Influence of intramolecular polar bonds on interface energetics in perfluoro-pentacene on Ag(111) (6 pages)	045418
Steffen Duhm, Shunsuke Hosoumi, Ingo Salzmann, Alexander Gerlach, Martin Oehzelt, Bernhard Wedl, Tien-Lin Lee, Frank Schreiber, Norbert Koch, Nobuo Ueno, and Satoshi Kera	
Effect of electron-phonon interaction on spectroscopies in graphene (19 pages)	045419
J. P. Carbotte, E. J. Nicol, and S. G. Sharapov	
Atomic motion in H_2 and D_2 single-molecule junctions induced by phonon excitation (4 pages)	045420
Manabu Kiguchi, Tomoka Nakazumi, Kunio Hashimoto, and Kei Murakoshi	
☞ Above-barrier surface electron resonances induced by a molecular network (5 pages)	045421
R. Stiufluc, L. M. A. Perdigão, B. Grandidier, D. Deresmes, G. Allan, C. Delerue, D. Stiévenard, P. H. Beton, S. C. Erwin, M. Sassi, V. Oison, and J.-M. Debierre	
Electronic properties and charge state of gold monomers and chains adsorbed on alumina thin films on NiAl(110) (7 pages)	045422
N. Nilius, M. V. Ganduglia-Pirovano, V. Brázdová, M. Kulawik, J. Sauer, and H.-J. Freund	
☞ LUMO photoemission lineshape in quasi-one-dimensional C_{60} chains (6 pages)	045423
A. Tamai, F. Baumberger, M. Hengsberger, J. Lobo-Checa, M. Muntwiler, M. Corso, C. Cirelli, L. Patthey, Z.-X. Shen, T. Greber, and J. Osterwalder	
Infrared spectroscopic studies on unoriented single-walled carbon nanotube films under hydrostatic pressure (12 pages)	045424
K. Thirunavukkuarasu, F. Hennrich, K. Kamarás, and C. A. Kuntscher	
First-principles investigation of transport properties through longitudinal unzipped carbon nanotubes (6 pages)	045425
Bin Wang and Jian Wang	

(Continued)

Interlayer and interfacial exchange coupling in ferromagnetic metal/semiconductor heterostructures (6 pages)	045319
M. J. Wilson, M. Zhu, R. C. Myers, D. D. Awschalom, P. Schiffer, and N. Samarth	
Comparison of ultrafast carrier thermalization in $\text{Ga}_x\text{In}_{1-x}\text{As}$ and Ge quantum wells (6 pages)	045320
C. Lange, N. S. Köster, S. Chatterjee, H. Sigg, D. Chrastina, G. Isella, H. von Känel, B. Kunert, and W. Stolz	
Spin transport theory in ferromagnet/semiconductor systems with noncollinear magnetization configurations (16 pages)	045321
Yang Song and Hanan Dery	
Hole and trion spin dynamics in quantum dots under excitation by a train of circularly polarized pulses (8 pages)	045322
B. Eble, P. Desfonds, F. Fras, F. Bernardot, C. Testelin, M. Chamorro, A. Miard, and A. Lemaître	
$U(1) \times U(1) \rtimes Z_2$ Chern-Simons theory and Z_4 parafermion fractional quantum Hall states (18 pages)	045323
Maissam Barkeshli and Xiao-Gang Wen	
Determination of dissociative fragment-adsorbate interaction energy during chemisorption of the diatomic molecule HCl on Si(100) (9 pages)	045324
Ming-Feng Hsieh (謝明峰), Jen-Yin Cheng (鄭人賓), Jenq-Cheng Yang (楊正成), Deng-Sung Lin (林登松), Karina Morgenstern, and Woei-Wu Pai (白偉武)	
Surface physics, nanoscale physics, low-dimensional systems	
Density functional theory with nonlocal correlation: A key to the solution of the CO adsorption puzzle (6 pages)	045401
P. Lazić, M. Alaei, N. Atodiresei, V. Caciuc, R. Brako, and S. Blügel	
Symmetric hydrogen bond in a water-hydroxyl complex on Cu(110) (5 pages)	045402
T. Kumagai, M. Kaizu, H. Okuyama, S. Hatta, T. Aruga, I. Hamada, and Y. Morikawa	
Unraveling the rotational disorder of graphene layers in graphite (5 pages)	045403
H. S. Wong and C. Durkan	
Growth and stability of Langmuir-Blodgett films on OH-, H-, or Br-terminated Si(001) (8 pages)	045404
J. K. Bal, S. Kundu, and S. Hazra	
Nonadiabatic phonons within the doped graphene layers of XC_6 compounds (5 pages)	045405
Mark P. M. Dean, Christopher A. Howard, Siddharth S. Saxena, and Mark Ellerby	
Resistivity of thin Cu films coated with Ta, Ti, Ru, Al, and Pd barrier layers from first principles (4 pages)	045406
Ferdows Zahid, Youqi Ke, Daniel Gall, and Hong Guo	
Single cysteine adsorption on Au(110): A first-principles study (12 pages)	045407
B. Höfiling, F. Ortmann, K. Hannewald, and F. Bechstedt	
Cluster scattering effects on phonon conduction in graphene (6 pages)	045408
Natalio Mingo, K. Esfarjani, D. A. Broido, and D. A. Stewart	
Local density of states in the presence of impurity scattering in graphene at high magnetic field (7 pages)	045409
Cristina Bena	

(Continued)

Sub-meV linewidth of excitonic luminescence in single GaN nanowires: Direct evidence for surface excitons (7 pages)	045302
Oliver Brandt, Carsten Pfüller, Caroline Chèze, Lutz Geelhaar, and Henning Riechert	
Schottky barrier heights, carrier density, and negative electron affinity of hydrogen-terminated diamond (11 pages)	045303
K. Tsugawa, H. Noda, K. Hirose, and H. Kawarada	
Decoherence of spin qubits due to a nearby charge fluctuator in gate-defined double dots (15 pages)	045304
Guy Ramon and Xuedong Hu	
Electron spin polarization and detection in InAs quantum dots through <i>p</i> -shell trions (6 pages)	045305
S. G. Carter, Ș. C. Bădescu, and A. S. Bracker	
Room-temperature negative photoconductivity in degenerate InN thin films with a supergap excitation (5 pages)	045306
Pai-Chun Wei, Surojit Chattopadhyay, Min-De Yang, Shih-Chang Tong, Ji-Lin Shen, Chien-Yao Lu, Han-Chang Shih, Li-Chyong Chen, and Kuei-Hsien Chen	
Spin-torque generation by dc or ac voltages in quasi-one-dimensional magnetic layered structures (10 pages)	045307
F. Romeo and R. Citro	
Many-body effects in the population dynamics of terahertz quantum cascade lasers (6 pages)	045308
F. Wang, X. G. Guo, and J. C. Cao	
Quantum interface between light and nuclear spins in quantum dots (9 pages)	045309
Heike Schwager, J. Ignacio Cirac, and Géza Giedke	
Effects of disorder and interactions in the quantum Hall ferromagnet (16 pages)	045310
D. Makogon, A. Alamir, and C. Morais Smith	
Theory of exciton fine structure in semiconductor quantum dots: Quantum dot anisotropy and lateral electric field (10 pages)	045311
Eugene Kadantsev and Pawel Hawrylak	
Quantum teleportation of electrons in quantum wires with surface acoustic waves (6 pages)	045312
Fabrizio Buscemi, Paolo Bordone, and Andrea Bertoni	
Hopping and trapping mechanisms in organic field-effect transistors (12 pages)	045313
S. J. Konezny, M. N. Bussac, and L. Zuppiroli	
Plasmon dynamics in strongly driven finite few-electron quantum systems: The role of the surface (5 pages)	045314
Carlos F. Destefani, Chris McDonald, Suren Sukiasyan, and Thomas Brabec	
Atomistic modeling of strain and diffusion at the Si/SiO ₂ interface (8 pages)	045315
Patrick Ganster, Guy Trégliat, and Andrés Saúl	
Effect of the surface on the electronic properties of a two-dimensional electron gas as measured by the quantum Hall effect (7 pages)	045316
G. Kopnov, V. Y. Umansky, H. Cohen, D. Shahar, and R. Naaman	
Signatures of critical full counting statistics in a quantum-dot chain (6 pages)	045317
Torsten Karzig and Felix von Oppen	
Topological stability of the half-vortices in spinor exciton-polariton condensates (8 pages)	045318
H. Flayac, I. A. Shelykh, D. D. Solnyshkov, and G. Malpuech	

(Continued)

Completeness of the exact muffin-tin orbitals: Application to hydrogenated alloys (<i>10 pages</i>)	045122
N. I. Al-Zoubi, M. P. J. Punkkinen, B. Johansson, and L. Vitos	
Interplay of bulk and interface effects in the electric-field-driven transition in magnetite (<i>5 pages</i>)	045123
A. A. Fursina, R. G. S. Sofin, I. V. Shvets, and D. Natelson	
Raman signatures of charge ordering in $K_{0.3}WO_3$ (<i>7 pages</i>)	045124
D. M. Sagar, D. Fausti, S. van Smaalen, and P. H. M. van Loosdrecht	
Semiconductors I: bulk	
Soft x-ray spectroscopy study of the element and orbital contributions to the electronic structure of copper hexadecafluoro-phthalocyanine (<i>12 pages</i>)	045201
L. F. J. Piper, S. W. Cho, Y. Zhang, A. DeMasi, K. E. Smith, A. Y. Matsuura, and C. McGuinness	
Temperature dependence of the charge carrier mobility in disordered organic semiconductors at large carrier concentrations (<i>12 pages</i>)	045202
I. I. Fishchuk, A. K. Kadashchuk, J. Genoe, Mujeeb Ullah, H. Sitter, Th. B. Singh, N. S. Sariciftci, and H. Bässler	
Electronic properties of $3R-CuAlO_2$ under pressure: Three theoretical approaches (<i>9 pages</i>)	045203
N. E. Christensen, A. Svane, R. Laskowski, B. Palanivel, P. Modak, A. N. Chantis, M. van Schilfgaarde, and T. Kotani	
Effects of filling in $CoSb_3$: Local structure, band gap, and phonons from first principles (<i>11 pages</i>)	045204
Daehyun Wee, Boris Kozinsky, Nicola Marzari, and Marco Fornari	
Electronic structure of $Ga_{1-x}Mn_xAs$ analyzed according to hole-concentration-dependent measurements (<i>9 pages</i>)	045205
M. A. Mayer, P. R. Stone, N. Miller, H. M. Smith, III, O. D. Dubon, E. E. Haller, K. M. Yu, W. Walukiewicz, X. Liu, and J. K. Furdyna	
 Nonlocal orbital-free kinetic energy density functional for semiconductors (<i>15 pages</i>)	045206
Chen Huang and Emily A. Carter	
Electron-beam-induced dissociation of (B,D) complexes in diamond mediated by multiple vibrational excitations (<i>7 pages</i>)	045207
N. Habka, J. Chevallier, and J. Barjon	
Curie temperature versus hole concentration in field-effect structures of $Ga_{1-x}Mn_xAs$ (<i>8 pages</i>)	045208
Y. Nishitani, D. Chiba, M. Endo, M. Sawicki, F. Matsukura, T. Dietl, and H. Ohno	
Boron diffusion in extrinsically doped crystalline silicon (<i>11 pages</i>)	045209
D. De Salvador, E. Napolitani, G. Bisognin, M. Pesce, A. Carnera, E. Bruno, G. Impellizzeri, and S. Mirabella	
Temperature-dependent electron and hole transport in disordered semiconducting polymers: Analysis of energetic disorder (<i>9 pages</i>)	045210
J. C. Blakesley, H. S. Clubb, and N. C. Greenham	
Semiconductors II: surfaces, interfaces, microstructures, and related topics	
Exciton spin dynamics in spherical CdS quantum dots (<i>12 pages</i>)	045301
P. Horodyská, P. Němec, D. Sprinzl, P. Malý, V. N. Gladilin, and J. T. Devreese	

(Continued)

Two-band electronic metal and neighboring spin Bose-metal on a zigzag strip with longer-ranged repulsion (12 pages)	045105
Hsin-Hua Lai and Olexei I. Motrunich	
Quantum criticality and non-Fermi-liquid behavior in a two-level two-lead quantum dot (10 pages)	045106
Xin Wang and Andrew J. Millis	
Structural, electronic, elastic, and piezoelectric properties of α -quartz and MXO_4 ($M=Al, Ga, Fe; X=P, As$) isomorph compounds: A DFT study (9 pages)	045107
Pierre Labéguerie, Moussab Harb, Isabelle Baraille, and Michel Rérat	
Electronic structure and ionicity of actinide oxides from first principles (12 pages)	045108
L. Petit, A. Svane, Z. Szotek, W. M. Temmerman, and G. M. Stocks	
Multidomain decomposition approach to large-scale electronic structure calculations (8 pages)	045109
K. Varga	
☞ Fermi liquid near Pomeranchuk quantum criticality (20 pages)	045110
Dmitrii L. Maslov and Andrey V. Chubukov	
Numerical analysis of the spatial range of the Kondo effect (13 pages)	045111
C. A. Büsser, G. B. Martins, L. Costa Ribeiro, E. Vernek, E. V. Anda, and E. Dagotto	
Resonant inelastic charge transfer in short alanine bridges (8 pages)	045112
Nikolai Sergueev and Alexander A. Demkov	
High-resolution optical spectroscopy of Tm^{3+} ions in $LiYF_4$: Crystal-field energies, hyperfine and deformation splittings, and the isotopic structure (9 pages)	045113
S. A. Klimin, D. S. Pytalev, M. N. Popova, B. Z. Malkin, M. V. Vanyunin, and S. L. Korableva	
Origin of the $^2E \leftrightarrow ^4T_2$ Fano resonance in Cr^{3+} -doped $LiCaAlF_6$: Pressure-induced excited-state crossover (10 pages)	045114
M. N. Sanz-Ortiz, F. Rodríguez, I. Hernández, R. Valiente, and S. Kück	
Liquid crystal phases of ultracold dipolar fermions on a lattice (8 pages)	045115
Chungwei Lin, Erhai Zhao, and W. Vincent Liu	
Dynamics of two interacting electrons in Anderson-Hubbard chains with long-range correlated disorder: Effect of a static electric field (7 pages)	045116
W. S. Dias, E. M. Nascimento, M. L. Lyra, and F. A. B. F. de Moura	
Orbital-selective formation of local moments in α -iron: First-principles route to an effective model (8 pages)	045117
A. A. Katanin, A. I. Poteryaev, A. V. Efremov, A. O. Shorikov, S. L. Skornyakov, M. A. Korotin, and V. I. Anisimov	
Electronic properties of pyroxenes $NaCrSi_2O_6$ and $NaFeSi_2O_6$ (5 pages)	045118
S. V. Streltsov, J. McLeod, A. Moewes, G. J. Redhammer, and E. Z. Kurmaev	
First-principles LDA+ U and GGA+ U study of neptunium dioxide (6 pages)	045119
Bao-Tian Wang, Hongliang Shi, Weidong Li, and Ping Zhang	
☞ Chiral topological insulators, superconductors, and other competing orders in three dimensions (19 pages)	045120
Pavan Hosur, Shinsei Ryu, and Ashvin Vishwanath	
Extremely correlated quantum liquids (30 pages)	045121
B. Sriram Shastry	

(Continued)

☞ Quasiparticle scattering and the protected nature of the topological states in a parent topological insulator Bi_2Se_3 (4 pages)	041405(R)
S. R. Park, W. S. Jung, Chul Kim, D. J. Song, C. Kim, S. Kimura, K. D. Lee, and N. Hur	
Anisotropic layer-by-layer growth of graphene on vicinal SiC(0001) surfaces (4 pages)	041406(R)
Satoru Tanaka, Kouhei Morita, and Hiroki Hibino	
Model for transient elongation and drift of islands on vicinal substrates (4 pages)	041407(R)
M. Dufay and O. Pierre-Louis	
☞ Electron-phonon coupling in graphene antidot lattices: An indication of polaronic behavior (4 pages)	041408(R)
Nenad Vukmirović, Vladimir M. Stojanović, and Mihajlo Vanević	
Surface acoustic wave propagation in graphene (4 pages)	041409(R)
Peter Thalmeier, Balázs Dóra, and Klaus Ziegler	
Single Dirac cone with a flat band touching on line-centered-square optical lattices (4 pages)	041410(R)
R. Shen, L. B. Shao, Baigeng Wang, and D. Y. Xing	
Enhanced down conversion of photons emitted by photoexcited $\text{Er}_x\text{Y}_{2-x}\text{Si}_2\text{O}_7$ films grown on silicon (4 pages)	041411(R)
Maria Miritello, Roberto Lo Savio, Paolo Cardile, and Francesco Priolo	
Stress release mechanisms for Cu on Pd(111) in the submonolayer and monolayer regimes (4 pages)	041412(R)
J. Jalkanen, G. Rossi, O. Trushin, E. Granato, T. Ala-Nissila, and S.-C. Ying	
Visualizing quantum well state perturbations of metallic thin films near stacking fault defects (4 pages)	041413(R)
Alexander A. Khajetoorians, Gregory A. Fiete, and Chih-Kang Shih	
Excitons and high-order optical transitions in individual carbon nanotubes: A Rayleigh scattering spectroscopy study (4 pages)	041414(R)
Stéphane Berciaud, Christophe Voisin, Hugen Yan, Bhupesh Chandra, Robert Caldwell, Yuyao Shan, Louis E. Brus, James Hone, and Tony F. Heinz	
First-principles description of atomic gold chains on Ge(001) (4 pages)	041415(R)
S. López-Moreno, A. H. Romero, A. Muñoz, and U. Schwingenschlögl	
Ballistic transport in graphene beyond linear response (4 pages)	041416(R)
B. Rosenstein, M. Lewkowicz, H. C. Kao, and Y. Korniyenko	

ARTICLES

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

Pressure-induced insulating state in $\text{Ba}_{1-x}\text{R}_x\text{IrO}_3$ ($R=\text{Gd}, \text{Eu}$) single crystals (7 pages)	045101
O. B. Korneta, S. Chikara, S. Parkin, L. E. DeLong, P. Schlottmann, and G. Cao	
Quasiparticle Nernst effect in stripe-ordered cuprates (15 pages)	045102
Andreas Hackl, Matthias Vojta, and Subir Sachdev	
Density matrix renormalization group study of excitons in polydiacetylene chains (11 pages)	045103
Gergely Barcza, Örs Legeza, Florian Gebhard, and Reinhard M. Noack	
Universality of Anderson transition in two-dimensional systems of symplectic symmetry class (5 pages)	045104
Reza Sepehrinia	

(Continued)