PHYSICAL REVIEW B **THIRD SERIES, VOLUME 77, NUMBER 8** **FEBRUARY 2008-15(II)**

Erratum: Angular dependence of spin-wave resonances and surface spin pinning in ferromagnetic (Ga, Mn)As films [Phys. Rev. B **75**, 195220 (2007)] *(1 page)* . . . . . 089903(E)
X. Liu, Y. Y. Zhou, and J. K. Furdyna

Erratum: Argon scattering from Ru(0001): Calculations and comparison with experiment [Phys. Rev. B **75**, 113408 (2007)] *(1 page)* . . . . . 089904(E)
W. W. Hayes and J. R. Manson

PHYSICAL REVIEW B THIRD SERIES, VOLUME 77, NUMBER 8 FEBRUARY 2008-15(II)

Spin tunneling in multilayer spintronic devices *(6 pages)* 085424
S. G. Tan, M. B. A. Jalil, S. Bala Kumar, and G.-C. Liang

Photoemission momentum mapping and wave function analysis of surface and bulk states on flat Cu(111) and stepped Cu(443) surfaces: A two-photon photoemission study *(10 pages)* 085425
M. Hengsberger, F. Baumberger, H. J. Neff, T. Greber, and J. Osterwalder

Magnetoelectronic properties of bilayer Bernal graphene *(10 pages)* 085426
Y. H. Lai, J. H. Ho, C. P. Chang, and M. F. Lin

Multiple-scattering theoretical approach to scanning tunneling microscopy *(12 pages)* 085427
Kamal K. Saha, Jürgen Henk, Arthur Ernst, and Patrick Bruno

Piezoelectricity-induced terahertz photon absorption by confined acoustic phonons in wurtzite CdSe nanocrystals *(5 pages)* 085428
Tzu-Ming Liu, Meng-Ju Yang, Chih-Wei Lai, Pi-Tai Chou, Ming-Hao Chang, Hsiang-Lin Liu, and Chi-Kuang Sun

Carbon nanotubes in helically modulated potentials *(11 pages)* 085429
P. J. Michalski and E. J. Mele

Atomic-scale self-organization of Fe nanostripes on stepped Cu(111) surfaces: Molecular dynamics and kinetic Monte Carlo simulations *(9 pages)* 085430
N. N. Negulyaev, V. S. Stepanyuk, W. Hergert, P. Bruno, and J. Kirschner

Transport properties of double-walled carbon nanotube quantum dots *(16 pages)* 085431
Shidong Wang and Milena Grifoni

Sudden decay of indirect exchange coupling between magnetic atoms on carbon nanotubes *(6 pages)* 085432
D. F. Kirwan, C. G. Rocha, A. T. Costa, and M. S. Ferreira

Commensurate growth and diminishing substrate influence in a multilayer film of a tris(thieno)hexaazatriphenylene derivative on Au(111) studied by scanning tunneling microscopy *(7 pages)* 085433
Sieu D. Ha, Qing Zhang, Stephen Barlow, Seth R. Marder, and Antoine Kahn

Absence of an insulator-metal transition in Rb_4C_{60} up to 2 GPa *(10 pages)* 085434
Agnieszka Iwasiewicz-Wabnig, Thomas Wågberg, Tatiana L. Makarova, and Bertil Sundqvist

Electronic band structure of carbon nanotube superlattices from first-principles calculations *(7 pages)* 085435
A. Ayuela, L. Chico, and W. Jaskólski

Modeling of ultrafast interferometric three-photon photoemission from a metal surface irradiated with sub-10-fs laser pulses *(9 pages)* 085436
A. T. Georges and N. E. Karatzas

ERRATA

Publisher's Note: Computer simulation of the 60° dislocation interaction with vacancy cluster in silicon [Phys. Rev. B **77**, 045211 (2008)] *(1 page)* . . . . . 089901(E)
Chengxiang Li, Qingyuan Meng, Kangyou Zhong, and Chaoying Wang

Publisher's Note: Quasiequilibrium optical nonlinearities from spin-polarized carriers in GaAs [Phys. Rev. B **77**, 085202 (2008)] *(1 page)* . . . . . 089902(E)
Arjun Joshua and V. Venkataraman

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 77, NUMBER 8** **FEBRUARY 2008-15(II)**

Growth of Co isolated clusters in the gas phase: Experiment and molecular dynamics simulations *(8 pages)* 085407
Sébastien Rives, Alain Catherinot, Frédéric Dumas-Bouchiat, Corinne Champeaux, Arnaud Videcoq, and Riccardo Ferrando

Quantum conductance of graphene nanoribbons with edge defects *(8 pages)* 085408
T. C. Li and Shao-Ping Lu

Theoretical analysis of the Faraday effect in zigzag carbon nanotubes *(6 pages)* 085409
Abbas Zarifi and Thomas Garm Pedersen

Conformational change of tetrahydroxyquinone molecules deposited on Ag(111) *(5 pages)* 085410
Mathieu Abel, Vincent Oison, Mathieu Koudia, and Louis Porte

Three-dimensional analysis of the geometrical rectifying properties of asymmetric metal-vacuum-metal junctions and extension for energy conversion *(11 pages)* 085411
A. Mayer, M. S. Chung, B. L. Weiss, N. M. Miskovsky, and P. H. Cutler

Optical forces on interacting plasmonic nanoparticles in a focused Gaussian beam *(6 pages)* 085412
Zhipeng Li, Mikael Käll, and Hongxing Xu

Observation of Aharonov-Bohm conductance oscillations in a graphene ring *(5 pages)* 085413
Saverio Russo, Jeroen B. Oostinga, Dominique Wehenkel, Hubert B. Heersche, Samira Shams Sobhani, Lieven M. K. Vandersypen, and Alberto F. Morpurgo

CO/Pt(111): GGA density functional study of site preference for adsorption *(7 pages)* 085414
M. Alaei, H. Akbarzadeh, H. Gholizadeh, and S. de Gironcoli

Absolute forbidden bands and waveguiding in two-dimensional phononic crystal plates *(15 pages)* 085415
J. O. Vasseur, P. A. Deymier, B. Djafari-Rouhani, Y. Pennec, and A-C. Hladky-Hennion

Theory of local electronic properties and finite-size effects in nanoscale open chains *(5 pages)* 085416
Andre M. C. Souza and Hans Herrmann

Studies of the periodic faceting of epitaxial molybdenum oxide grown on Mo(110) *(7 pages)* 085417
K. Radican, N. Berdunov, and I. V. Shvets

High-resolution energy-filtered scanning tunneling microscopy using doped one-dimensional semiconductors *(6 pages)* 085418
M. Mizuno and Eugene H. Kim

Electronic structure of a Mn_6 (S=4) single molecule magnet grafted on Au(111) *(6 pages)* 085419
U. del Pennino, V. Corradini, R. Biagi, V. De Renzi, F. Moro, D. W. Boukhvalov, G. Panaccione, M. Hochstrasser, C. Carbone, C. J. Milios, and E. K. Brechin

Orientation of C_{60} molecules in the $(3\sqrt{3}\times 3\sqrt{3})R30°$ and $(\sqrt{13}\times\sqrt{13})R14°$ phases of C_{60}/Ge(111) single layers *(7 pages)* 085420
Mattia Fanetti, Luca Gavioli, Cinzia Cepek, and Massimo Sancrotti

Adsorption-induced gap states of *h*-BN on metal surfaces *(5 pages)* 085421
A. B. Preobrajenski, S. A. Krasnikov, A. S. Vinogradov, May Ling Ng, T. Käämbre, A. A. Cafolla, and N. Mårtensson

Unoccupied states of individual silver clusters and chains on Ag(111) *(7 pages)* 085422
A. Sperl, J. Kröger, N. Néel, H. Jensen, R. Berndt, A. Franke, and E. Pehlke

Boundary conditions for Dirac fermions on a terminated honeycomb lattice *(10 pages)* 085423
A. R. Akhmerov and C. W. J. Beenakker

(Continued)

PHYSICAL REVIEW B THIRD SERIES, VOLUME 77, NUMBER 8 FEBRUARY 2008-15(II)

Energy transfer in close-packed PbS nanocrystal films *(9 pages)* 085322
V. Rinnerbauer, H.-J. Egelhaaf, K. Hingerl, P. Zimmer, S. Werner, T. Warming, A. Hoffmann, M. Kovalenko, W. Heiss, G. Hesser, and F. Schaffler

Electronic coupling in organic-inorganic semiconductor hybrid structures with type-II energy level alignment *(5 pages)* 085323
S. Blumstengel, S. Sadofev, C. Xu, J. Puls, R. L. Johnson, H. Glowatzki, N. Koch, and F. Henneberger

Optimal laser control of double quantum dots *(5 pages)* 085324
E. Räsänen, A. Castro, J. Werschnik, A. Rubio, and E. K. U. Gross

Surface effects on the energetic and spintronic properties of InP nanowires diluted with Mn: First-principles calculations *(6 pages)* 085325
T. M. Schmidt

Effects of aluminum incorporation on band alignment at the SiO_2/HfO_2 interface *(7 pages)* 085326
Onise Sharia, Alexander A. Demkov, Gennadi Bersuker, and B. H. Lee

Magnetotransport in low-density *p*-Si/SiGe heterostructures: From metal through hopping insulator to Wigner glass *(10 pages)* 085327
I. L. Drichko, A. M. Dyakonov, I. Yu. Smirnov, A. V. Suslov, Y. M. Galperin, V. Vinokur, M. Myronov, O. A. Mironov, and D. R. Leadley

Electron scattering in quantum wells subjected to an in-plane magnetic field *(5 pages)* 085328
S. A. Tarasenko

First-principles investigation of an epitaxial silicon oxynitride layer on a 6*H*-SiC(0001) surface *(5 pages)* 085329
Peter Krüger, Björn Baumeier, and Johannes Pollmann

Surface physics, nanoscale physics, low-dimensional systems

Structure determination of monolayer-by-monolayer grown $La_{1-x}Sr_xMnO_3$ thin films and the onset of magnetoresistance *(10 pages)* 085401
R. Herger, P. R. Willmott, C. M. Schlepütz, M. Björck, S. A. Pauli, D. Martoccia, B. D. Patterson, D. Kumah, R. Clarke, Y. Yacoby, and M. Döbeli

Coverage dependence of Sb/Si(111) adsorption and desorption modes: Interplay between chemical interactions and site transitions *(13 pages)* 085402
H. Guesmi, L. Lapena, G. Tréglia, and P. Müller

Geometries, stabilities, and reactions of carbon clusters: Towards a microscopic theory of fullerene formation *(11 pages)* 085403
Yusuke Ueno and Susumu Saito

Depth distribution function calculated by quantum scattering theory *(9 pages)* 085404
Hiroshi Shinotsuka, Hiroko Arai, and Takashi Fujikawa

Functionalization of carbon-based nanostructures with light transition-metal atoms for hydrogen storage *(9 pages)* 085405
E. Durgun, S. Ciraci, and T. Yildirim

Origin of a surface state above the Fermi level on Ge(001) and Si(001) studied by temperature-dependent ARPES and LEED *(5 pages)* 085406
P. E. J. Eriksson, M. Adell, Kazuyuki Sakamoto, and R. I. G. Uhrberg

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 77, NUMBER 8** **FEBRUARY 2008-15(II)**

Light-mass Bragg cavity polaritons in planar quantum dot lattices *(9 pages)* 085306
E. M. Kessler, M. Grochol, and C. Piermarocchi

Dark current analysis of quantum cascade detectors by magnetoresistance measurements *(8 pages)* 085307
Aurore Gomez, Nicolas Péré-Laperne, Louis-Anne de Vaulchier, Cédric Koeniguer, Angela Vasanelli, Alexandru Nedelcu, Xavier Marcadet, Yves Guldner, and Vincent Berger

Path-integral approach to the ground-state energy of a homogeneous polaron gas *(9 pages)* 085308
F. Brosens, S. N. Klimin, and J. T. Devreese

First-order coherent resonant tunneling through an interacting coupled-quantum-dot interferometer: Generic quantum rate equations and current noise *(16 pages)* 085309
Bing Dong, X. L. Lei, and Norman J. M. Horing

Large vacuum Rabi splitting in a multiple quantum well GaN-based microcavity in the strong-coupling regime *(9 pages)* 085310
Gabriel Christmann, Raphaël Butté, Eric Feltin, Anas Mouti, Pierre A. Stadelmann, Antonino Castiglia, Jean-François Carlin, and Nicolas Grandjean

Optimizing organic photovoltaics using tailored heterojunctions: A photoinduced absorption study of oligothiophenes with low band gaps *(14 pages)* 085311
R. Schueppel, K. Schmidt, C. Uhrich, K. Schulze, D. Wynands, J. L. Brédas, E. Brier, E. Reinold, H.-B. Bu, P. Baeuerle, B. Maennig, M. Pfeiffer, and K. Leo

Quantum to classical transition of the charge relaxation resistance of a mesoscopic capacitor *(10 pages)* 085312
Simon E. Nigg and Markus Büttiker

Interfacial properties between CoO (100) and Fe_3O_4 (100) *(10 pages)* 085313
Hui-Qiong Wang, Eric I. Altman, and Victor E. Henrich

Hartree-Fock calculations of a finite inhomogeneous quantum wire *(10 pages)* 085314
Jiang Qian and Bertrand I. Halperin

Growth of isolated and embedded Cu-containing chalcopyrite clusters and nanocrystals by dry processing *(10 pages)* 085315
D. Fuertes Marrón, S. Lehmann, and M. Ch. Lux-Steiner

Impurities and geometrical effects on the electron energy spectrum of quantum rings *(9 pages)* 085316
G. A. Farias, M. H. Degani, J. A. K. Freire, J. Costa e Silva, and R. Ferreira

Statistics of the polariton condensate *(13 pages)* 085317
Paolo Schwendimann and Antonio Quattropani

Competition between bulk and interface plasmonic modes in valence electron energy-loss spectroscopy of ultrathin SiO_2 gate stacks *(8 pages)* 085318
M. Couillard, A. Yurtsever, and D. A. Muller

Monolayer oxidation on Si(001)-(2×1) studied by means of reflectance difference spectroscopy *(6 pages)* 085319
S. Ohno, H. Kobayashi, F. Mitobe, T. Suzuki, K. Shudo, and M. Tanaka

Field-induced modulation of the conductance, thermoelectric power, and magnetization in ballistic coupled double quantum wires under a tilted magnetic field *(10 pages)* 085320
Danhong Huang, S. K. Lyo, K. J. Thomas, and M. Pepper

Femtosecond control of the magnetization in ferromagnetic semiconductors *(18 pages)* 085321
J. Chovan and I. E. Perakis

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 77, NUMBER 8** **FEBRUARY 2008-15(II)**

Finite mobility effects on the radiative efficiency limit of *pn*-junction solar cells *(13 pages)* 085203
Julian Mattheis, Jürgen H. Werner, and Uwe Rau

Structure and energetics of *c*-Si/*a*-SiO_2 systems: Planar interfaces and embedded Si nanocrystals *(5 pages)* 085204
LingTi Kong and Laurent J. Lewis

Bound magnetic polarons in the very dilute regime *(5 pages)* 085205
Yu. G. Kusrayev, K. V. Kavokin, G. V. Astakhov, W. Ossau, and L. W. Molenkamp

Microscopic derivation of Frenkel excitons in second quantization *(13 pages)* 085206
Monique Combescot and Walter Pogosov

First-principles analysis of the optical properties of structural disorder in SiO_2 glass *(8 pages)* 085207
Tomoyuki Tamura, Shoji Ishibashi, Shingo Tanaka, Masanori Kohyama, and Ming-Hsien Lee

Hole states in wide band-gap diluted magnetic semiconductors and oxides *(6 pages)* 085208
Tomasz Dietl

Bi isoelectronic impurities in GaAs *(5 pages)* 085209
S. Francoeur, S. Tixier, E. Young, T. Tiedje, and A. Mascarenhas

Structure and stability of small compact self-interstitial clusters in crystalline silicon *(6 pages)* 085210
Sangheon Lee and Gyeong S. Hwang

Temperature dependence of the triplet diffusion and quenching rates in films of an $Ir(ppy)_3$-cored dendrimer *(5 pages)* 085211
J. C. Ribierre, A. Ruseckas, I. D. W. Samuel, S. V. Staton, and P. L. Burn

Colossal positive magnetoresistance in a doped nearly magnetic semiconductor *(5 pages)* 085212
Rongwei Hu, K. J. Thomas, Y. Lee, T. Vogt, E. S. Choi, V. F. Mitrović, R. P. Hermann, F. Grandjean, P. C. Canfield, J. W. Kim, A. I. Goldman, and C. Petrovic

Vibrational properties of the H-N-H complex in dilute III-N-V alloys: Infrared spectroscopy and density functional theory *(9 pages)* 085213
S. Kleekajai, F. Jiang, K. Colon, M. Stavola, W. B. Fowler, K. R. Martin, A. Polimeni, M. Capizzi, Y. G. Hong, H. P. Xin, C. W. Tu, G. Bais, S. Rubini, and F. Martelli

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

Quantum transport length scales in silicon-based semiconducting nanowires: Surface roughness effects *(5 pages)* 085301
Aurélien Lherbier, Martin P. Persson, Yann-Michel Niquet, François Triozon, and Stephan Roche

Decoherence of coupled electron spins via nuclear spin dynamics in quantum dots *(6 pages)* 085302
W. Yang and R. B. Liu

Diffusion of nonequilibrium carriers in low-dimensional structures *(9 pages)* 085303
A. Achoyan, S. Petrosyan, H. E. Ruda, and A. Shik

Comparative study of the adsorption and dissociation of vinylacetic acid and acrylic acid on silicon (001) *(7 pages)* 085304
P. P. Favero, A. C. Ferraz, and R. Miotto

Semianalytical model for simulation of electronic properties of narrow-gap strained semiconductor quantum nanostructures *(6 pages)* 085305
J. Even, F. Doré, C. Cornet, and L. Pedesseau

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 77, NUMBER 8** **FEBRUARY 2008-15(II)**

Specific heat of a one-dimensional interacting Fermi system: Role of anomalies *(17 pages)* 085109
Andrey V. Chubukov, Dmitrii L. Maslov, and Ronojoy Saha

Phase diagram of the asymmetric Hubbard model *(7 pages)* 085110
Pavol Farkašovský

Nodal Pulay terms for accurate diffusion quantum Monte Carlo forces *(8 pages)* 085111
A. Badinski, P. D. Haynes, and R. J. Needs

Intercalation processes and diffusion paths of lithium ions in spinel-type structured $Li_{1+x}Ti_2O_4$: Density functional theory study *(11 pages)* 085112
M. Anicete-Santos, L. Gracia, A. Beltrán, J. Andrés, J. A. Varela, and E. Longo

Magnetic and transport behavior of Ni-substituted $GdBaCo_2O_{5+\delta}$ perovskite *(8 pages)* 085113
A. Bharathi, P. Yasodha, N. Gayathri, A. T. Satya, R. Nagendran, N. Thirumurugan, C. S. Sundar, and Y. Hariharan

Electronic spectra and crystal field analysis of Yb^{2+} in $SrCl_2$ *(13 pages)* 085114
Zaifa Pan, Chang-kui Duan, and Peter A. Tanner

Superfluid-insulator transition and fermion pairing in Bose-Fermi mixtures *(6 pages)* 085115
Kun Yang

Two-step-wise interpretation of highly asymmetric, grazing angle (e,2e) on solids: A real momentum spectroscopy for surfaces and overlayers *(11 pages)* 085116
A. Liscio, A. Ruocco, G. Stefani, and S. Iacobucci

Localized polarons and doorway vibrons in finite quantum structures *(6 pages)* 085117
H. Fehske, G. Wellein, J. Loos, and A. R. Bishop

Electronic structure and orbital ordering of $SrRu_{1-x}Ti_xO_3$: GGA+U investigations *(7 pages)* 085118
Pao-An Lin, Horng-Tay Jeng, and Chen-Shiung Hsue

Phase diagram of the one-dimensional Hubbard model with next-nearest-neighbor hopping *(10 pages)* 085119
S. Nishimoto, K. Sano, and Y. Ohta

Identification of the carbon antisite in SiC: EPR of ^{13}C enriched crystals *(5 pages)* 085120
Pavel G. Baranov, Ivan V. Ilyin, Alexandra A. Soltamova, and Eugene N. Mokhov

Adapting approximate-memory potentials for time-dependent density functional theory *(8 pages)* 085121
Yair Kurzweil and Roi Baer

Screened Coulomb interaction in the maximally localized Wannier basis *(9 pages)* 085122
Takashi Miyake and F. Aryasetiawan

PBE+U calculations of the Jahn-Teller effect in PrO_2 *(9 pages)* 085123
Fabien Tran, Johannes Schweifer, Peter Blaha, Karlheinz Schwarz, and Pavel Novák

Magnetic g tensors for the $^4I_{15/2}$ and $^4I_{13/2}$ states of Er^{3+}:Y_2SiO_5 *(10 pages)* 085124
Yongchen Sun, Thomas Böttger, C. W. Thiel, and R. L. Cone

Semiconductors I: bulk

All-optical coherent control of electrical currents in centrosymmetric semiconductors *(9 pages)* 085201
Marko Spasenović, Markus Betz, Louis Costa, and Henry M. van Driel

Quasiequilibrium optical nonlinearities from spin-polarized carriers in GaAs *(7 pages)* 085202
Arjun Joshua and V. Venkataraman

(Continued)