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 73, NUMBER 15 *CONTENTS* **APRIL 2006-15(I)**

BRIEF REPORTS

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

Character of the incommensurate modulation and the problem of light scattering in quartz near the $\alpha \leftrightarrow \beta$ transition *(3 pages)* 153101
T. A. Aslanyan, T. Shigenari, K. Abe, and D. A. Semagin

Interstitial dinitrogen makes PtN_2 an insulating hard solid *(4 pages)* 153102
Andrea F. Young, Javier A. Montoya, Chrystele Sanloup, Michele Lazzeri, Eugene Gregoryanz, and Sandro Scandolo

Electronic structure and conductivity of ferroelectric hexaferrite: *Ab initio* calculations *(4 pages)* 153103
K. Knížek, P. Novák, and M. Küpferling

Semiconductors I: bulk

Suitability of *p*-type conditions for ferromagnetism in GaN:Mn *(4 pages)* 153201
Priya Mahadevan and S. Mahalakshmi

Spatial extent of band bending in diamond due to ion impact as measured by secondary electron emission: Experiment and theory *(4 pages)* 153202
S. Prawer, S. Rubanov, S. M. Hearne, D. N. Jamieson, and R. Kalish

Quantum kinetics of exciton and folded acoustic phonon interaction in GaAs multiple quantum wells *(4 pages)* 153203
Y. Ogawa, A. Iwamatsu, and F. Minami

Dynamics of a spin-polarized electron liquid: Spin oscillations with a low decay *(4 pages)* 153204
R. N. Gurzhi, A. N. Kalinenko, A. I. Kopeliovich, P. V. Pyshkin, and A. V. Yanovsky

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

Ferromagnetism in two-dimensional $Ti_{0.8}Co_{0.2}O_2$ nanosheets *(4 pages)* 153301
M. Osada, Y. Ebina, K. Fukuda, K. Ono, K. Takada, K. Yamaura, E. Takayama-Muromachi, and T. Sasaki

Dielectric function of degenerate InSb: Beyond the hydrodynamic model *(3 pages)* 153302
G. R. Bell, T. D. Veal, J. A. Frost, and C. F. McConville

Size-dependent thermal conductivity of nanoscale semiconducting systems *(4 pages)* 153303
L. H. Liang and Baowen Li

Copyright 2006 by The American Physical Society

(Continued)

1098-0121(20060415)73:15;1-U

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 73, NUMBER 15** **APRIL 2006-15(I)**

Transient nonlinear optical spectroscopy studies involving biexciton coherence in single quantum dots *(4 pages)* 153304
Xiaoqin Li, Yanwen Wu, Xiaodong Xu, D. G. Steel, and D. Gammon

Impact of inhomogeneous excitonic broadening on the strong exciton-photon coupling in quantum well nitride microcavities *(4 pages)* 153305
G. Christmann, R. Butté, E. Feltin, J.-F. Carlin, and N. Grandjean

Spin currents in the Rashba model in the presence of nonuniform fields *(4 pages)* 153306
A. Rebei and O. Heinonen

Kondo effect in triple quantum dots *(4 pages)* 153307
R. Žitko, J. Bonča, A. Ramšak, and T. Rejec

Kondo physics in transport through a quantum dot with Luttinger-liquid leads *(4 pages)* 153308
S. Andergassen, T. Enss, and V. Meden

Electronic structure of zinc-blende $Al_xGa_{1-x}N$: Screened-exchange study *(4 pages)* 153309
Byounghak Lee and Lin-Wang Wang

Surface physics, nanoscale physics, low-dimensional systems

Switching mechanisms and remanent states for nanoscale slotted Co circular elements studied by electron holography *(4 pages)* 153401
Hao Hu, Hua Wang, Martha R. McCartney, and David J. Smith

Surface second-harmonic generation in $Sr_{0.6}Ba_{0.4}NbO_3$ with a nonlinear diffusion mechanism *(3 pages)* 153402
T. H. Zhang, J. Yang, H. Z. Kang, L. Feng, J. J. Xu, C. P. Zhang, X. K. Ren, B. H. Wang, Y. Z. Lu, F. Jia, and W. W. Shao

Quenching of phase coherence in quasi-one-dimensional ring crystals *(4 pages)* 153403
K. Shimatake, Y. Toda, and S. Tanda

Atomic relaxations and magnetic states in a single-atom tunneling junction *(4 pages)* 153404
R. Z. Huang, V. S. Stepanyuk, A. L. Klavsyuk, W. Hergert, P. Bruno, and J. Kirschner

Light in a subwavelength slit in a metal: Propagation and reflection *(3 pages)* 153405
Reuven Gordon

Adsorption of Ar on graphite using London dispersion forces corrected Kohn-Sham density functional theory *(4 pages)* 153406
Alexandre Tkatchenko and O. Anatole von Lilienfeld

Effective resistance of systems with hopping conductivities in the case of many neighbors *(3 pages)* 153407
Yakov M. Strelniker

Transport properties of functionalized carbon nanotubes: Density-functional Green's function calculations *(3 pages)* 153408
N. Ranjan and G. Seifert

ARTICLES

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

Light propagation through a sharp-bend coupled-cavity waveguide in a two-dimensional photonic crystal *(7 pages)* 155101
N. Malkova and C. Z. Ning

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 73, NUMBER 15** **APRIL 2006-15(I)**

Two Anderson impurities in the Kondo limit: A systematic study of the ground states of the many subspaces of the Hamiltonian *(17 pages)* 155102
J. Simonin

Enhancement of Wigner crystallization in quasi-low-dimensional solids *(9 pages)* 155103
G. Rastelli, P. Quémerais, and S. Fratini

Interaction effects on two-dimensional fermions with random hopping *(15 pages)* 155104
Matthew S. Foster and Andreas W. W. Ludwig

One-loop approximation for the Hubbard model *(8 pages)* 155105
A. Sherman

Phase diagrams of the two-orbital Hubbard model with different bandwidths *(8 pages)* 155106
Kensuke Inaba and Akihisa Koga

Simulations of defect-free coupled-resonator optical waveguides constructed in 12-fold quasiperiodic photonic crystals *(5 pages)* 155107
Yiquan Wang, Juan Liu, Bo Zhang, Shuai Feng, and Zhi-Yuan Li

Metamaterial photonic funnels for subdiffraction light compression and propagation *(5 pages)* 155108
Alexander A. Govyadinov and Viktor A. Podolskiy

Theory of *which path* dephasing in single electron interference due to trace in conductive environment *(10 pages)* 155109
Paweł Machnikowski

Effects of covalency on the *p*-shell photoemission of transition metals: MnO *(14 pages)* 155110
Paul S. Bagus and Eugene S. Ilton

Local-spin-density functional for multideterminant density functional theory *(9 pages)* 155111
Simone Paziani, Saverio Moroni, Paola Gori-Giorgi, and Giovanni B. Bachelet

Momentum-resolved spectral functions of $SrVO_3$ calculated by LDA+DMFT *(8 pages)* 155112
I. A. Nekrasov, K. Held, G. Keller, D. E. Kondakov, Th. Pruschke, M. Kollar, O. K. Andersen, V. I. Anisimov, and D. Vollhardt

Theory of the pseudogap state of the cuprates *(17 pages)* 155113
C. M. Varma

Variational density-functional perturbation theory for dielectrics and lattice dynamics *(12 pages)* 155114
Keith Refson, Paul R. Tulip, and Stewart J. Clark

Orbital magnetic field effects in spin liquid with spinon Fermi sea: Possible application to κ-$(ET)_2Cu_2(CN)_3$ *(11 pages)* 155115
Olexei I. Motrunich

Dielectric breakdown and current switching effect in the incommensurate layered compound $(LaS)_{1.196}VS_2$ *(4 pages)* 155116
L. Cario, B. Corraze, A. Meerschaut, and O. Chauvet

First-principles Wannier functions and effective lattice fermion models for narrow-band compounds *(28 pages)* 155117
I. V. Solovyev

Single-hole properties of the *t-J* model on the honeycomb lattice *(9 pages)* 155118
Andreas Lüscher, Andreas Läuchli, Weihong Zheng, and Oleg P. Sushkov

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 73, NUMBER 15** **APRIL 2006-15(I)**

Angle-resolved photoemission study of dispersive and narrow-band 5*f* states in UAsSe *(10 pages)* 155119
E. Guziewicz, T. Durakiewicz, P. M. Oppeneer, J. J. Joyce, J. D. Thompson, C. G. Olson, M. T. Butterfield, A. Wojakowski, D. P. Moore, and A. J. Arko

Interchain coupling effects on photoinduced phase transitions between neutral and ionic phases in an extended Hubbard model with alternating potentials and an electron-lattice coupling *(7 pages)* 155120
K. Yonemitsu

Semiconductors I: bulk

Field- and concentration-tuned scaling of a quantum phase transition in a magnetically doped semiconductor *(7 pages)* 155201
E. Helgren, L Zeng, K. Burch, D. Basov, and F. Hellman

Relaxation processes of the Ge-H stretch modes in hydrogenated amorphous germanium *(5 pages)* 155202
K. W. Jobson, J.-P. R. Wells, R. E. I. Schropp, D. A. Carder, P. J. Phillips, and J. I. Dijkhuis

Far-infrared reflectivity and Raman scattering study of α-MnSe *(6 pages)* 155203
Z. V. Popović and A. Milutinović

Dynamic relaxation of magnetic clusters in a ferromagnetic (Ga,Mn)As epilayer *(7 pages)* 155204
K. Hamaya, T. Koike, T. Taniyama, T. Fujii, Y. Kitamoto, and Y. Yamazaki

Electron-only diodes of poly(dialkoxy-*p*-phenylene vinylene) using hole-blocking bottom electrodes *(7 pages)* 155205
M. M. Mandoc, B. de Boer, and P. W. M. Blom

Pressure dependence of the configurational bistability and deep electronic levels of the MFe center in InP *(11 pages)* 155206
G. A. Samara and C. E. Barnes

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

Single-particle state mixing in two-electron double quantum dots *(5 pages)* 155301
Dmitriy V. Melnikov and Jean-Pierre Leburton

Statistical study of the conductance and shot noise in open quantum-chaotic cavities: Contribution from whispering gallery modes *(13 pages)* 155302
Evgeny N. Bulgakov, Víctor A. Gopar, Pier A. Mello, and Ingrid Rotter

Temperature-, gate-, and photoinduced conductance of close-packed CdTe nanocrystal films *(9 pages)* 155303
V. J. Porter, T. Mentzel, S. Charpentier, M. A. Kastner, and M. G. Bawendi

Hall plateau diagram for the Hofstadter butterfly energy spectrum *(9 pages)* 155304
Mikito Koshino and Tsuneya Ando

Experimental measurement and finite-element modeling of extraordinary optoconductance in GaAs-In metal-semiconductor hybrid structures *(7 pages)* 155305
K. A. Wieland, Yun Wang, S. A. Solin, A. M. Girgis, and L. R. Ram-Mohan

Current-induced nonequilibrium vibrations in single-molecule devices *(7 pages)* 155306
Jens Koch, Matthias Semmelhack, Felix von Oppen, and Abraham Nitzan

Coverage dependence of the 1-propanol adsorption on the Si(001) surface and fragmentation dynamics *(13 pages)* 155307
Jian-Ge Zhou, Frank Hagelberg, and Chuanyun Xiao

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 73, NUMBER 15** **APRIL 2006-15(I)**

Buildup and structure of the InSe/Pt interface studied by angle-resolved photoemission and x-ray absorption spectroscopy *(13 pages)* 155308
J. F. Sánchez-Royo, J. Pellicer-Porres, A. Segura, S. J. Gilliland, J. Avila, M. C. Asensio, O. Safonova, M. Izquierdo, and A. Chevy

Transport of spin-polarized electrons in a magnetic superlattice *(7 pages)* 155309
Jun-Feng Liu, Wen-Ji Deng, Ke Xia, Chao Zhang, and Zhongshui Ma

Interplay between indium and nitrogen content on the absorption strength of $Ga_{1-y}In_yAs_{1-x}N_x$ quantum wires *(7 pages)* 155310
A. Feltrin, A. Alemu, and A. Freundlich

Spin decay in a quantum dot coupled to a quantum point contact *(11 pages)* 155311
Massoud Borhani, Vitaly N. Golovach, and Daniel Loss

Electronic driving force for stacking fault expansion in 4*H*-SiC *(6 pages)* 155312
Walter R. L. Lambrecht and M. S. Miao

Near-field magnetoabsorption of quantum dots *(13 pages)* 155313
Constantinos Simserides, Anna Zora, and Georgios Triberis

Spatial spin polarization and suppression of compressible edge channels in the integer quantum Hall regime *(5 pages)* 155314
S. Ihnatsenka and I. V. Zozoulenko

Energy levels and magneto-optical transitions in parabolic quantum dots with spin-orbit coupling *(18 pages)* 155315
Pekka Pietiläinen and Tapash Chakraborty

Magnetosubbands of semiconductor quantum wires with Rashba and Dresselhaus spin-orbit coupling *(7 pages)* 155316
Shengli Zhang, Run Liang, Erhu Zhang, Lei Zhang, and Yachao Liu

Voltage-controlled hole spin injection in nonmagnetic GaAs/AlAs resonant tunneling structures *(9 pages)* 155317
H. B. de Carvalho, Y. Galvão Gobato, M. J. S. P. Brasil, V. Lopez-Richard, G. E. Marques, I. Camps, M. Henini, L. Eaves, and G. Hill

Energy dissipation of electron solitons in a quantum well *(5 pages)* 155318
S. Bednarek and B. Szafran

Quantum theory of light emission from a semiconductor quantum dot *(13 pages)* 155319
T. Feldtmann, L. Schneebeli, M. Kira, and S. W. Koch

Calculation of the temperature profile in nanowhiskers growing on a hot substrate *(7 pages)* 155320
Frank Glas and Jean-Christophe Harmand

Subnanometer-scale size effects in electronic spectra of Si/SiO_2 multiple quantum wells: Interferometric second-harmonic generation spectroscopy *(13 pages)* 155321
V. G. Avramenko, T. V. Dolgova, A. A. Nikulin, A. A. Fedyanin, O. A. Aktsipetrov, A. F. Pudonin, A. G. Sutyrin, D. Yu. Prokhorov, and A. A. Lomov

Vacuum-field Rabi splitting in semiconducting core-shell microsphere *(10 pages)* 155322
Hiroshi Ajiki, Toshikazu Kaneno, and Hajime Ishihara

Competition between composite-fermion-crystal and liquid orders at $\nu=1/5$ *(5 pages)* 155323
Chia-Chen Chang, Csaba Töke, Gun Sang Jeon, and Jainendra K. Jain

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 73, NUMBER 15** **APRIL 2006-15(I)**

Group-III vacancy induced $In_xGa_{1-x}As$ quantum dot interdiffusion *(6 pages)* 155324
H. S. Djie, O. Gunawan, D.-N. Wang, B. S. Ooi, and J. C. M. Hwang

Quantum rings as electron spin beam splitters *(5 pages)* 155325
Péter Földi, Orsolya Kálmán, Mihály G. Benedict, and F. M. Peeters

Optical transitions and nature of Stokes shift in spherical CdS quantum dots *(5 pages)* 155326
D. O. Demchenko and Lin-Wang Wang

Ferromagnetism and structure of epitaxial Cr-doped anatase TiO_2 thin films *(12 pages)* 155327
T. C. Kaspar, T. Droubay, V. Shutthanandan, S. M. Heald, C. M. Wang, D. E. McCready, S. Thevuthasan, J. D. Bryan, D. R. Gamelin, A. J. Kellock, M. F. Toney, X. Hong, C. H. Ahn, and S. A. Chambers

Ballistic transport in one-dimensional loops with Rashba and Dresselhaus spin-orbit coupling *(9 pages)* 155328
V. Marigliano Ramaglia, V. Cataudella, G. De Filippis, and C. A. Perroni

Ab initio derived augmented Tersoff potential for silicon oxynitride compounds and their interfaces with silicon *(15 pages)* 155329
Salomon R. Billeter, Alessandro Curioni, Dominik Fischer, and Wanda Andreoni

Terahertz radiation from InAs induced by carrier diffusion and drift *(6 pages)* 155330
Kai Liu, Jingzhou Xu, Tao Yuan, and X.-C. Zhang

Fano interference effect on the transition spectrum of single-electron transistors *(6 pages)* 155331
David M.-T. Kuo

Conductance via the multiorbital Kondo effect in single quantum dots *(6 pages)* 155332
Rui Sakano and Norio Kawakami

Inhomogeneous laser heating and phonon confinement in silicon nanowires: A micro-Raman scattering study *(9 pages)* 155333
K. W. Adu, H. R. Gutiérrez, U. J. Kim, and P. C. Eklund

High-field magnetoexcitons in unstrained $GaAs/Al_xGa_{1-x}As$ quantum dots *(8 pages)* 155334
Y. Sidor, B. Partoens, F. M. Peeters, N. Schildermans, M. Hayne, V. V. Moshchalkov, A. Rastelli, and O. G. Schmidt

Effects of non-Abelian statistics on two-terminal shot noise in a quantum Hall liquid in the Pfaffian state *(11 pages)* 155335
Cristina Bena and Chetan Nayak

Carrier transport in self-organized InAs/GaAs quantum-dot structures studied by single-dot spectroscopy *(5 pages)* 155336
E. S. Moskalenko, M. Larsson, W. V. Schoenfeld, P. M. Petroff, and P. O. Holtz

Energetics of Mg incorporation at GaN(0001) and GaN($000\bar{1}$) surfaces *(9 pages)* 155337
Qiang Sun, Annabella Selloni, T. H. Myers, and W. Alan Doolittle

Surface physics, nanoscale physics, low-dimensional systems

Bimodal electronic structure of isolated Co atoms on Pt(111) *(4 pages)* 155401
Y. Yayon, Xinghua Lu, and M. F. Crommie

Density functional study of the polar MnO(111) surface *(14 pages)* 155402
C. Franchini, V. Bayer, R. Podloucky, G. Parteder, S. Surnev, and F. P. Netzer

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 73, NUMBER 15** **APRIL 2006-15(I)**

Imaging bandwidth of the tapping mode atomic force microscope probe *(8 pages)* 155403
János Kokavecz, Othmar Marti, Péter Heszler, and Ádám Mechler

Spectroscopy and nonlinear microscopy of Au nanoparticle arrays: Experiment and theory *(7 pages)* 155404
Andreas Hohenau, Joachim R. Krenn, Jonas Beermann, Sergey I. Bozhevolnyi, Sergio G. Rodrigo, Luis Martin-Moreno, and Francisco Garcia-Vidal

Ab initio study of alloying and straining effects on CO interaction with Pt *(8 pages)* 155405
Muneyuki Tsuda and Hideaki Kasai

Electronic interactions between gold nanoclusters in constrained geometries *(7 pages)* 155406
Sang Hoon Kim, S. Hwang, Young-Seok Shon, D. Frank Ogletree, and Miquel Salmeron

Energy-resolved STM mapping of C_{60} on metal surfaces: A theoretical study *(7 pages)* 155407
Mario De Menech, Ulf Saalmann, and Martin E. Garcia

Theory of the fundamental vibration-rotation-translation spectrum of H_2 in a C_{60} lattice *(14 pages)* 155408
Roger M. Herman and John Courtenay Lewis

Low-temperature infrared spectroscopy of H_2 in crystalline C_{60} *(7 pages)* 155409
S. A. FitzGerald, H. O. H. Churchill, P. M. Korngut, C. B. Simmons, and Y. E. Strangas

Probing electronic excitations in molecular conduction *(5 pages)* 155410
B. Muralidharan, A. W. Ghosh, and S. Datta

Linear-response study of plasmon excitation in metallic thin films: Layer-dependent hybridization and dispersion *(9 pages)* 155411
Zhe Yuan and Shiwu Gao

Electromagnetic near and far fields from the interaction between surface plasmons and a surface defect in a thin metallic film *(8 pages)* 155412
Jorge Gaspar-Armenta, Raúl García-Llamas, and Javier Durán-Favela

Vibrational spectra of ammonia, benzene, and benzene adsorbed on Si (001) by *first principles* calculations with periodic boundary conditions *(8 pages)* 155413
M. Preuss and F. Bechstedt

Temperature influence on the production of nanodot patterns by ion beam sputtering of Si(001) *(9 pages)* 155414
R. Gago, L. Vázquez, O. Plantevin, J. A. Sánchez-García, M. Varela, M. C. Ballesteros, J. M. Albella, and T. H. Metzger

Single-impurity tunneling spectroscopy to probe the discrete states of a two-dimensional electron gas in a quantizing magnetic field *(9 pages)* 155415
B. Jouault, M. Gryglas, G. Faini, U. Gennser, A. Cavanna, M. Baj, and D. K. Maude

Design, near-field characterization, and modeling of 45° surface-plasmon Bragg mirrors *(13 pages)* 155416
M. U. González, J.-C. Weeber, A.-L. Baudrion, A. Dereux, A. L. Stepanov, J. R. Krenn, E. Devaux, and T. W. Ebbesen

Coupling among bulk, surface and edge diffusion *(12 pages)* 155417
C. P. Flynn

Interfacial dynamics of the rhomboidal pyramid pattern on ion-eroded Cu(110) *(10 pages)* 155418
Alessandro Molle, Francesco Buatier de Mongeot, Anna Molinari, Corrado Boragno, and Ugo Valbusa

Ultrafast resonant optical scattering from single gold nanorods: Large nonlinearities and plasmon saturation *(6 pages)* 155419
Matthew Pelton, Mingzhao Liu, Sungnam Park, Norbert F. Scherer, and Philippe Guyot-Sionnest

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 73, NUMBER 15** **APRIL 2006-15(I)**

First-principles calculations of the adsorption and hydrogenation reactions of $CH_x(x=0,4)$ species on a Fe(100) surface *(17 pages)* 155420
D. C. Sorescu

Manifestation of the roughness-square-gradient scattering in surface-corrugated waveguides *(12 pages)* 155421
F. M. Izrailev, N. M. Makarov, and M. Rendón

Enhanced laser cooling of rare-earth-ion-doped nanocrystalline powders *(15 pages)* 155422
X. L. Ruan and M. Kaviany

Shape and size effects on the energy absorption by small metallic particles *(17 pages)* 155423
Petro M. Tomchuk and Nicolas I. Grigorchuk

Symmetry restrictions in the chirality dependence of physical properties of single-wall nanotubes *(5 pages)* 155424
Fei Ye, Bing-Shen Wang, and Zhao-Bin Su

XPS investigation of Mn valence in lanthanum manganite thin films under variation of oxygen content *(9 pages)* 155425
Elke Beyreuther, Stefan Grafström, Lukas M. Eng, Christian Thiele, and Kathrin Dörr

Phonon linewidths and electron-phonon coupling in graphite and nanotubes *(6 pages)* 155426
Michele Lazzeri, S. Piscanec, Francesco Mauri, A. C. Ferrari, and J. Robertson

Structural and electronic properties of Au_n $(n=2-10)$ clusters and their interactions with single S atoms: *Ab initio* molecular dynamics simulations *(10 pages)* 155427
Chiranjib Majumder and S. K. Kulshreshtha

Structural, magnetic, and chemical properties of thin Fe films grown on Rh(100) surfaces investigated with density functional theory *(14 pages)* 155428
D. Spišák and J. Hafner

Interaction of manganese with single-wall B_2O nanotubes: An *ab initio* study *(6 pages)* 155429
Guowen Peng, Yuan Ping Feng, and Alfred C. H. Huan

Size-dependent change in energy bands of nanoparticles of white tin *(6 pages)* 155430
E. Anno and M. Tanimoto

Analytic equation of state for solid fcc C_{60} based on generalized free-volume theory *(10 pages)* 155431
Jiu-xun Sun, Lingcang Cai, Qiang Wu, and Fuqian Jing

Bonding modes and electronic properties of single-crystalline silicon nanotubes *(6 pages)* 155432
Binghai Yan, Gang Zhou, Jian Wu, Wenhui Duan, and Bing-Lin Gu

Atomic-scale yield and dislocation nucleation in KBr *(10 pages)* 155433
T. Filleter, S. Maier, and R. Bennewitz

Conductivity of a suspension of nanowires in a weakly conducting medium *(8 pages)* 155434
Tao Hu, A. Yu. Grosberg, and B. I. Shklovskii

Buckling of single-walled carbon nanotubes upon bending: Molecular dynamics simulations and finite element method *(10 pages)* 155435
Guoxin Cao and Xi Chen

First principles studies on the growth of small Cu clusters and the dissociative chemisorption of H_2 *(10 pages)* 155436
Galip H. Guvelioglu, Pingping Ma, Xiaoyi He, Robert C. Forrey, and Hansong Cheng

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 73, NUMBER 15** **APRIL 2006-15(I)**

Rate constants for dissociative chemisorption of hydrogen molecules on copper clusters *(9 pages)* 155437
R. C. Forrey, G. H. Guvelioglu, P. Ma, X. He, and H. Cheng

Transition from vortex localization to electron localization in the fractional quantum Hall regime *(6 pages)* 155438
Agustí Emperador

ERRATA

Erratum: Spin-dependent electron transport through a magnetic resonant tunneling diode [Phys. Rev. B **71**, 235301 (2005)] *(1 page)* . . . . . 159901(E)
P. Havu, N. Tuomisto, R. Väänänen, M. J. Puska, and R. M. Nieminen