

PHYSICAL REVIEW B

For editorial and subscription correspondence,
please see inside front cover
(ISSN: 0163-1829)

PERIODICALS

Postmaster send address changes to:
American Institute of Physics
Suite 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 65, NUMBER 16

CONTENTS

15 APRIL 2002-II

Announcement: Change in Printing Schedule to Synchronize Online and Print Journals i

RAPID COMMUNICATIONS

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

Optical conductivity of the heavy fermion superconductor CeCoIn_5 (4 pages) 161101(R)
E. J. Singley, D. N. Basov, E. D. Bauer, and M. B. Maple

Semiconductors I: bulk

Electronic structures of doped anatase TiO_2 : $\text{Ti}_{1-x}\text{M}_x\text{O}_2$ ($M = \text{Co}, \text{Mn}, \text{Fe}, \text{Ni}$) (4 pages) 161201(R)
Min Sik Park, S. K. Kwon, and B. I. Min

Compressibility and thermal expansion of cubic silicon nitride (4 pages) 161202(R)
J. Z. Jiang, H. Lindelov, L. Gerward, K. Ståhl, J. M. Recio, P. Mori-Sanchez, S. Carlson, M. Mezouar,
E. Dooryhee, A. Fitch, and D. J. Frost

Electronic structure of $\text{In}_{1-x}\text{Mn}_x\text{As}$ studied by photoemission spectroscopy: Comparison with $\text{Ga}_{1-x}\text{Mn}_x\text{As}$
(4 pages) 161203(R)
J. Okabayashi, T. Mizokawa, D. D. Sarma, A. Fujimori, T. Slupinski, A. Oiwa, and H. Munekata

Surface properties of the refractory metal-nitride semiconductor ScN : Screened-exchange LDA-FLAPW
investigations (4 pages) 161204(R)
C. Stampfl, R. Asahi, and A. J. Freeman

ZnO as a material mostly adapted for the realization of room-temperature polariton lasers (4 pages) 161205(R)
Marian Zamfirescu, Alexey Kavokin, Bernard Gil, Guillaume Malpuech, and Mikhail Kaliteevski

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

Electron-hole localization in coupled quantum dots (4 pages) 161301(R)
Filippo Troiani, Ulrich Hohenester, and Elisa Molinari

Origin of type-C defects on the $\text{Si}(100)-(2 \times 1)$ surface (4 pages) 161302(R)
Masayasu Nishizawa, Tetsuji Yasuda, Satoshi Yamasaki, Kazushi Miki, Masanori Shinohara,
Nozomu Kamakura, Yasuo Kimura, and Michio Niwano

Photon correlation spectroscopy of a single quantum dot (4 pages) 161303(R)
A. Kiraz, S. Fälth, C. Becher, B. Gayral, W. V. Schoenfeld, P. M. Petroff, Lidong Zhang, E. Hu, and
A. Imamoglu

Conductivity corrections in a strongly correlated and disordered two-dimensional electron system (4 pages) .. 161304(R)
Z. D. Kvon, O. Estibals, G. M. Gusev, and J. C. Portal

Measurements of composite fermion masses from the spin polarization of two-dimensional electrons in the
region $1 < \nu < 2$ (4 pages) 161305(R)
R. Chughai, V. Zhitomirsky, R. J. Nicholas, and M. Henini



Spin splitting in modulation-doped $\text{Al}_x\text{Ga}_{1-x}\text{N}/\text{GaN}$ heterostructures (4 pages)	161306(R)
Ikai Lo, J. K. Tsai, W. J. Yao, P. C. Ho, Li-Wei Tu, T. C. Chang, S. Elhamri, W. C. Mitchel, K. Y. Hsieh, J. H. Huang, H. L. Huang, and Wen-Chung Tsai	
Zener tunneling in superlattices in a magnetic field (4 pages)	161307(R)
D. Meinhold, K. Leo, N. A. Fromer, D. S. Chemla, S. Glutsch, F. Bechstedt, and K. Köhler	
Ultrafast carrier activation in resonantly excited $1.3\ \mu\text{m}$ InAs/GaAs quantum dots at room temperature (4 pages)	161308(R)
F. Quochi, M. Dinu, J. Shah, L. N. Pfeiffer, K. W. West, and P. M. Platzman	
Evidence of electron correlations in plasmon dispersions of ultralow density two-dimensional electron systems (4 pages)	161309(R)
C. F. Hirjibehedin, A. Pinczuk, B. S. Dennis, L. N. Pfeiffer, and K. W. West	
Stimulated spin dynamics of polaritons in semiconductor microcavities (4 pages)	161310(R)
P. G. Lagoudakis, P. G. Savvidis, J. J. Baumberg, D. M. Whittaker, P. R. Eastham, M. S. Skolnick, and J. S. Roberts	

Surface physics, low-dimensional systems, and related topics

Laser spinning of nanotubes: A path to fast-rotating microdevices (4 pages)	161401(R)
Petr Král and H. R. Sadeghpour	
Symmetry-driven phase transformations in single-wall carbon-nanotube bundles under hydrostatic pressure (4 pages)	161402(R)
Marcel H. F. Sluiter, Vijay Kumar, and Yoshiyuki Kawazoe	
Lateral-force measurements in dynamic force microscopy (4 pages)	161403(R)
O. Pfeiffer, R. Bennewitz, A. Baratoff, E. Meyer, and P. Grütter	
Chirality of internal metallic and semiconducting carbon nanotubes (4 pages)	161404(R)
R. R. Bacsá, A. Peigney, Ch. Laurent, P. Puech, and W. S. Bacsá	

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

Effect of the oxidation state and hydrogen concentration on the lifetime of thermally fixed holograms in $\text{LiNbO}_3:\text{Fe}$ (7 pages)	165101
E. M. de Miguel-Sanz, M. Carrascosa, and L. Arizmendi	
de Haas–van Alphen oscillations in the quasi-two-dimensional organic conductor $\kappa\text{-(ET)}_2\text{Cu(NCS)}_2$: The magnetic breakdown approach (8 pages)	165102
V. M. Gvozdkov, Yu. V. Pershin, E. Steep, A. G. M. Jansen, and P. Wyder	
<i>Ab initio</i> Green-function formulation of the transfer matrix: Application to complex band structures (10 pages)	165103
D. Wortmann, H. Ishida, and S. Blügel	
Thermodynamic Bethe ansatz equations of one-dimensional Hubbard model and high-temperature expansion (9 pages)	165104
Minoru Takahashi and Masahiro Shiroishi	
Electronic structure of CrO_2 as deduced from its magneto-optical Kerr spectra (9 pages)	165105
J. Kuneš, P. Novák, P. M. Oppeneer, C. König, M. Fraune, U. Rüdiger, G. Güntherodt, and C. Ambrosch-Draxl	
Multiresolution analysis for efficient, high precision all-electron density-functional calculations (10 pages)	165106
Torkel D. Engenness and T. A. Arias	
Orbital-resolved soft x-ray spectroscopy in NaV_2O_5 (6 pages)	165107
G. P. Zhang, G. T. Woods, Eric L. Shirley, T. A. Callcott, L. Lin, G. S. Chang, B. C. Sales, D. Mandrus, and J. He	

Site-selected O 2 <i>p</i> densities of states in NaV ₂ O ₅ determined from angular-dependent x-ray absorption and emission spectra (6 pages)	165108
G. T. Woods, G. P. Zhang, T. A. Callcott, L. Lin, G. S. Chang, B. Sales, D. Mandrus, and J. He	
Wide-temperature-range dielectric response of the charge-density-wave system TaS ₃ (11 pages)	165109
D. Starešinić, K. Biljaković, W. Brütting, K. Hosseini, P. Monceau, H. Berger, and F. Levy	
Effect of backward carrier jumps on variable-range hopping in disordered materials (5 pages)	165110
V. I. Arkhipov, E. V. Emelianova, and G. J. Adriaenssens	
Calculus of sea-displacement operators (27 pages)	165111
Girish S. Setlur and D. S. Citrin	
Local versus nonlocal order-parameter field theories for quantum phase transitions (8 pages)	165112
D. Belitz, T. R. Kirkpatrick, and Thomas Vojta	
Quantum orders and symmetric spin liquids (37 pages)	165113
Xiao-Gang Wen	
Application of the density matrix renormalization group in momentum space (12 pages)	165114
Satoshi Nishimoto, Eric Jeckelmann, Florian Gebhard, and Reinhard M. Noack	
<i>Ab initio</i> electronic structure calculations for metallic intermediate band formation in photovoltaic materials (10 pages)	165115
P. Wahnón and C. Tablero	
Three-component elastic wave band-gap material (6 pages)	165116
Zhengyou Liu, C. T. Chan, and Ping Sheng	
Series expansions for variable electron density (7 pages)	165117
Weihong Zheng, C. J. Hamer, J. Oitmaa, and R. R. P. Singh	
Iron under Earth's core conditions: Liquid-state thermodynamics and high-pressure melting curve from <i>ab initio</i> calculations (11 pages)	165118
D. Alfè, G. D. Price, and M. J. Gillan	
Giant hybridization effects in 4 <i>f</i> photoemission spectra of Pr and Nd transition-metal compounds (4 pages) ..	165119
Yu. Kucherenko, M. Finken, S. L. Molodtsov, M. Heber, J. Boysen, C. Laubschat, and G. Behr	
X-ray absorption of the negative charge-transfer material SrFe _{1-x} Co _x O ₃ (7 pages)	165120
M. Abbate, G. Zampieri, J. Okamoto, A. Fujimori, S. Kawasaki, and M. Takano	
Growth, optical characterization, and laser operation of a stoichiometric crystal KYb(WO ₄) ₂ (11 pages)	165121
M. C. Pujol, M. A. Bursukova, F. Güell, X. Mateos, R. Solé, Jna. Gavalda, M. Aguiló, J. Massons, F. Díaz, P. Klopp, U. Griebner, and V. Petrov	
Friedel oscillations and charge density waves in chains and ladders (13 pages)	165122
Steven R. White, Ian Affleck, and Douglas J. Scalapino	
Photonic properties of bicontinuous cubic microphases (5 pages)	165123
M. Maldovan, A. M. Urbas, N. Yufa, W. C. Carter, and E. L. Thomas	
Interacting electrons in a one-dimensional random array of scatterers: A quantum dynamics and Monte Carlo study (11 pages)	165124
V. Filinov, P. Thomas, I. Varga, T. Meier, M. Bonitz, V. Fortov, and S. W. Koch	

Semiconductors I: bulk

Transport properties of polycrystalline type-I Sn clathrates (6 pages)	165201
G. S. Nolas, J. L. Cohn, J. S. Dyck, C. Uher, and J. Yang	
Nuclear spin-lattice relaxation by optically bistable defects in CdF ₂ :In (6 pages)	165202
M. Shroyer, W. W. Warren, Jr., and A. I. Ryskin	
Copper-hydrogen complexes in silicon (8 pages)	165203
S. Knack, J. Weber, H. Lemke, and H. Riemann	
Band structure of CdGeAs ₂ near the fundamental gap (11 pages)	165204
Sukit Limpijumnong and Walter R. L. Lambrecht	

Effective-medium approximation with asymmetric transition rates (8 pages)	165205
Sebastian Bustingorry, Manuel O. Cáceres, and Eduardo R. Reyes	
Magnetic contribution to the specific heat of $\text{Pb}_{1-x}\text{Mn}_x\text{Te}$ (7 pages)	165206
A. Łusakowski, A. Jędrzejczak, M. Górski, V. Osinniy, M. Arciszewska, W. Dobrowolski, V. Domukhovski, B. Witkowska, T. Story, and R. R. Gałazka	
Magneto-optic effects in a nonlinear photonic crystal (7 pages)	165207
Bambi Hu and W. Z. Wang	
Analysis of defect coupling in one- and two-dimensional photonic crystals (9 pages)	165208
Sheng Lan, Satoshi Nishikawa, Yoshimasa Sugimoto, Naoki Ikeda, Kiyoshi Asakawa, and Hiroshi Ishikawa	
Determination of the parameters of semiconducting $\text{CdF}_2\text{:In}$ with Schottky barriers from radio-frequency measurements (8 pages)	165209
A. I. Ritus, A. V. Pronin, A. A. Volkov, P. Lunkenheimer, A. Loidl, A. S. Shcheulin, and A. I. Ryskin	
Linear high-field magnetoconductivity of doped polyacetylene up to 30 Tesla (5 pages)	165210
D.-S. Suh, J. G. Park, J. S. Kim, D. C. Kim, T. J. Kim, A. N. Aleshin, and Y. W. Park	
Anomalous temperature dependence of photoinduced fluidity in chalcogenide glasses (8 pages)	165211
D. Th. Kastrissios, G. N. Papatheodorou, and S. N. Yannopoulos	
Transport and electrically detected electron spin resonance of microcrystalline silicon before and after electron irradiation (6 pages)	165212
W. Bronner, M. Mehring, and R. Brüggemann	
ac photoconductivity of hydrogenated amorphous silicon: Influence of long-range potential fluctuations (5 pages)	165213
K. Shimakawa and Ashtosh Ganjoo	
Ionized donor pairs and microwave and far-infrared absorption in semiconducting CdF_2 (12 pages)	165214
S. A. Kazanskii, D. S. Rumyantsev, and A. I. Ryskin	
Optical properties of $\beta\text{-FeSi}_2$ under pressure (5 pages)	165215
K. Takarabe, R. Teranishi, J. Oinuma, Y. Mori, T. Suemasu, S. Chichibu, and F. Hasegawa	
Influence of disorder on ferromagnetism in diluted magnetic semiconductors (7 pages)	165216
A. L. Chudnovskiy and D. Pfannkuche	
Spin-current modulation and square-wave transmission through periodically stubbed electron waveguides (10 pages)	165217
X. F. Wang, P. Vasilopoulos, and F. M. Peeters	
Polaron effects on thermally stimulated photoluminescence in disordered organic systems (8 pages)	165218
V. I. Arkhipov, E. V. Emelianova, A. Kadashchuk, I. Blonsky, S. Nešpůrek, D. S. Weiss, and H. Bässler	
Quadrupole effects in core and valence photoelectron emission from crystalline germanium measured via a spatially modulated x-ray interference field (9 pages)	165219
E. J. Nelson, J. C. Woicik, P. Pianetta, I. A. Vartanyants, and J. W. Cooper	
Modeling of Sb-based type-II quantum cascade lasers (10 pages)	165220
Guobin Liu and Shun-Lien Chuang	

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

Simulation of terahertz generation at semiconductor surfaces (8 pages)	165301
M. B. Johnston, D. M. Whittaker, A. Corchia, A. G. Davies, and E. H. Linfield	
Effects of interfacial atomic segregation and intermixing on the electronic properties of InAs/GaSb superlattices (18 pages)	165302
Rita Magri and Alex Zunger	
Spin-polarized transport through a quantum dot: Anderson model with on-site Coulomb repulsion (9 pages)	165303
N. Sergueev, Qing-feng Sun, Hong Guo, B. G. Wang, and Jian Wang	

Effect of anisotropic current of the order parameter on $\text{In}_x\text{Ga}_{1-x}\text{N}$ compositional fluctuation caused by phase separation (9 pages)	165304
Toshiyuki Okumura and Yoshiro Akagi	
Kondo and anti-Kondo resonances in transport through nanoscale devices (6 pages)	165305
A. A. Aligia and C. R. Proetto	
Unpaired and spin-singlet paired states of a two-dimensional electron gas in a perpendicular magnetic field (10 pages)	165306
M. Polini, K. Mouloupoulos, B. Davoudi, and M. P. Tosi	
Lateral variation of the electron density across a Hall bar in high electric and magnetic fields (4 pages)	165307
J. Frankenberger, A. Zrenner, M. Bichler, and G. Abstreiter	
Probing the quantum states of self-assembled InAs dots by magnetotunneling spectroscopy (12 pages)	165308
A. Patané, R. J. A. Hill, L. Eaves, P. C. Main, M. Henini, M. L. Zambrano, A. Levin, N. Mori, C. Hamaguchi, Yu. V. Dubrovskii, E. E. Vdovin, D. G. Austing, S. Tarucha, and G. Hill	
Reaction processes of transition-metal Ni atom with bare Si(001) and H-terminated Si(001)-(2×1) surfaces: First-principles study (14 pages)	165309
Shin'ichi Higai and Takahisa Ohno	
Phonon-assisted relaxation kinetics of statistically degenerate excitons in high-quality quantum wells (12 pages)	165310
A. V. Soroko and A. L. Ivanov	
Hopping conduction in GaAs layers grown by molecular-beam epitaxy at low temperatures (5 pages)	165311
F. Shimogishi, K. Mukai, S. Fukushima, and N. Otsuka	
Electromechanics of charge shuttling in dissipative nanostructures (10 pages)	165312
T. Nord, L. Y. Gorelik, R. I. Shekhter, and M. Jonson	
Localized states in two-dimensional semiconductors doped with magnetic impurities in a quantizing magnetic field (9 pages)	165313
P. Dahan, V. Fleurov, K. Kikoin, and I. D. Vagner	
Exciton-polariton lasing and amplification based on exciton-exciton scattering in CdTe microcavity quantum wells (7 pages)	165314
R. Huang, Y. Yamamoto, R. André, J. Bleuse, M. Muller, and H. Ulmer-Tuffigo	
Atomic structure of the GaAs(001)-(2×4) surface under As flux (10 pages)	165315
Akihiro Ohtake, Masashi Ozeki, Tetsuji Yasuda, and Takashi Hanada	
Role of structural relaxations and chemical substitutions on piezoelectric fields and potential lineup in GaN/Al junctions (7 pages)	165316
S. Picozzi, G. Profeta, A. Continenza, S. Massidda, and A. J. Freeman	
Wave function scarring in open quantum dots: A microwave-billiard analog study (9 pages)	165317
Y.-H. Kim, M. Barth, H.-J. Stöckmann, and J. P. Bird	
Excited states of an electron-hole pair in spherical quantum dots and their optical properties (12 pages)	165318
Takayuki Uozumi and Yosuke Kayanuma	
Model of Schottky junction admittance taking into account incomplete impurity ionization and large-signal effects (8 pages)	165319
Andrei V. Los and Michael S. Mazzola	
Atomic structure of the GaAs(113)B surface (9 pages)	165320
J. Márquez, L. Geelhaar, and K. Jacobi	
Polaron effect in GaAs-Ga _{1-x} Al _x As quantum wells: A fractional-dimensional space approach (9 pages)	165321
A. Matos-Abiadue	
Self-induced transparency in semiconductor quantum dots (6 pages)	165322
Giovanna Panzarini, Ulrich Hohenester, and Elisa Molinari	
Si-rich 6H- and 4H-SiC(0001) 3×3 surface oxidation and initial SiO ₂ /SiC interface formation from 25 to 650 °C (11 pages)	165323
F. Amy, P. Soukiasian, Y. K. Hwu, and C. Brylinski	

Thermoelectric power of nondegenerate Kane semiconductors under the conditions of mutual electron-phonon drag in a high electric field (9 pages)	165324
M. M. Babaev, T. M. Gassym, M. Taş, and M. Tomak	
Photon-number squeezing by the nonlinear backward pump process in a constant-voltage heterojunction LED (9 pages)	165325
Hiroyuki Sumitomo, Masamichi Yamanishi, and Yutaka Kadoya	
Theory of photon-number squeezing in a heterojunction LED by the nonlinear backward pump process (15 pages)	165326
Hiroyuki Sumitomo, Masamichi Yamanishi, and Yutaka Kadoya	
Superconductor coupled to two Luttinger liquids as an entangler for electron spins (13 pages)	165327
Patrik Recher and Daniel Loss	
Interface electronic states and boundary conditions for envelope functions (10 pages)	165328
I. V. Tokatly, A. G. Tsibizov, and A. A. Gorbatshevich	
Amorphization mechanism and defect structures in ion-beam-amorphized Si, Ge, and GaAs (14 pages)	165329
J. Nord, K. Nordlund, and J. Keinonen	
Brillouin spectroscopy of acoustic modes in porous silicon films (8 pages)	165330
H. J. Fan, M. H. Kuok, S. C. Ng, R. Boukherroub, J.-M. Baribeau, J. W. Fraser, and D. J. Lockwood	
Contactless measurement of short-range electron motion in semiconducting macroporous GaP (7 pages)	165331
A. Germeau, E. van Faassen, and D. Vanmaekelbergh	
Core-level photoemission study of the Pb overlayers on Si(001) (7 pages)	165332
K. Nakamura, H. W. Yeom, H. Koh, K. Ono, M. Oshima, and K. Tono	
Effect of isotropic versus anisotropic elasticity on the electronic structure of cylindrical InP/In _{0.49} Ga _{0.51} P self-assembled quantum dots (13 pages)	165333
M. Tadić, F. M. Peeters, and K. L. Janssens	
Interpretation and theory of tunneling experiments on single nanostructures (14 pages)	165334
Y. M. Niquet, C. Delerue, G. Allan, and M. Lannoo	
Binding energy of charged excitons in ZnSe-based quantum wells (17 pages)	165335
G. V. Astakhov, D. R. Yakovlev, V. P. Kochereshko, W. Ossau, W. Faschinger, J. Puls, F. Henneberger, S. A. Crooker, Q. McCulloch, D. Wolverson, N. A. Gippius, and A. Waag	
Chemisorption-induced disruption of surface electronic structure: Hydrogen adsorption on the Si(100)-2×1 surface (5 pages)	165336
Dongxue Chen and John J. Boland	
Dislocation strain field in ultrathin bonded silicon wafers studied by grazing incidence x-ray diffraction (6 pages)	165337
J. Eymery, D. Buttard, F. Fournel, H. Moriceau, G. T. Baumbach, and D. Lübbert	
Capacitance of a quantum dot from the channel-anisotropic two-channel Kondo model (16 pages)	165338
Karyn Le Hur and Georg Seelig	
Optical properties of structurally relaxed Si/SiO ₂ superlattices: The role of bonding at interfaces (11 pages)	165339
Pierre Carrier, Laurent J. Lewis, and M. W. C. Dharma-wardana	
Surface physics, low-dimensional systems, and related topics	
Density-functional method for nonequilibrium electron transport (17 pages)	165401
Mads Brandbyge, José-Luis Mozos, Pablo Ordejón, Jeremy Taylor, and Kurt Stokbro	
Identifying isomers of C ₇₈ by means of x-ray spectroscopy (6 pages)	165402
Arianna Bassan, Mats Nyberg, and Yi Luo	
Metastable precursors during the oxidation of the Ru(0001) surface (10 pages)	165403
Karsten Reuter, M. Verónica Ganduglia-Pirovano, Catherine Stampfl, and Matthias Scheffler	
Low-temperature electrical anisotropy of self-assembled organic films (4 pages)	165404
H. P. de Oliveira and C. P. de Melo	

Origin of multiple peaks in the light emission spectra of a Au(111) surface induced by the scanning tunneling microscope (8 pages)	165405
Kazuyuki Meguro, Kenji Sakamoto, Ryuichi Arafune, Minoru Satoh, and Sukekatsu Ushioda	
Stokes-anti-Stokes Brillouin intensity asymmetry of spin-wave modes in ferromagnetic films and multilayers (6 pages)	165406
R. Zivieri, P. Vavassori, L. Giovannini, F. Nizzoli, Eric E. Fullerton, M. Grimsditch, and V. Metlushko	
Kinetic Monte Carlo investigation of Xe adsorption and desorption on Pt(111) and Pt(997) (12 pages)	165407
B. Lehner, M. Hohage, and P. Zeppenfeld	
Structure of the $c(2\times 2)$ -Br/Pt(110) surface (13 pages)	165408
V. Blum, L. Hammer, K. Heinz, C. Franchini, J. Redinger, K. Swamy, C. Deisl, and E. Bertel	
Electrical and optical measurements of CVD diamond doped with sulfur (6 pages)	165409
J. A. Garrido, C. E. Nebel, M. Stutzmann, E. Gheeraert, N. Casanova, and E. Bustarret	
Interwall interaction and electronic structure of double-walled BN nanotubes (4 pages)	165410
Susumu Okada, Susumu Saito, and Atsushi Oshiyama	
Evidence for Kosterlitz-Thouless-type orientational ordering of CF_3Br monolayers physisorbed on graphite (4 pages)	165411
S. Faßbender, M. Enderle, K. Knorr, J. D. Noh, and H. Rieger	
Correlations in the sine-Gordon model with finite soliton density (11 pages)	165412
D. N. Aristov and A. Luther	
One-dimensional versus two-dimensional surface states on stepped Au(111) (7 pages)	165413
J. E. Ortega, A. Mugarza, V. Repain, S. Rousset, V. Pérez-Dieste, and A. Mascaraque	
Dislocations and morphological instabilities: Continuum modeling of misfitting heteroepitaxial films (20 pages)	165414
Mikko Haataja, Judith Müller, A. D. Rutenberg, and Martin Grant	
Screening at doped nanotube junctions beyond linear response (5 pages)	165415
Amir A. Farajian, Keivan Esfarjani, and Masuhiro Mikami	
Transport properties of single-wall carbon nanotube Y junctions (13 pages)	165416
Antonis N. Andriotis, Madhu Menon, Deepak Srivastava, and Leonid Chernozatonskii	
Bridging C_{60} by silicon: Towards non-Van der Waals C_{60} -based materials (6 pages)	165417
F. Tournus, B. Masenelli, P. Mélinon, X. Blase, A. Perez, M. Pellarin, M. Broyer, A. M. Flank, and P. Lagarde	
Electronic structures of capped carbon nanotubes under electric fields (6 pages)	165418
Changwook Kim, Bongsoo Kim, Seung Mi Lee, Chulsu Jo, and Young Hee Lee	
Electronic structure of potassium-doped carbon nanotubes (6 pages)	165419
Takashi Miyake and Susumu Saito	
Scaling behavior of the penetration depth of energetic silver clusters in graphite (8 pages)	165420
C. F. Sanz-Navarro, Roger Smith, D. J. Kenny, S. Pratontep, and R. E. Palmer	
Stability and electronic properties of Si-doped carbon fullerenes (8 pages)	165421
R. Guirado-López	
Resonant Raman scattering by quadrupolar vibrations of Ni-Ag core-shell nanoparticles (5 pages)	165422
Hervé Portales, Lucien Saviot, Eugène Duval, Mélanie Gaudry, Emmanuel Cottancin, Michel Pellarin, Jean Lermé, and Michel Broyer	
Production of defects in supported carbon nanotubes under ion irradiation (8 pages)	165423
A. V. Krasheninnikov, K. Nordlund, and J. Keinonen	
First-principles study of the stability of the icosahedral Ti_{13} , Ti_{13}^{-1} , and Ti_{13}^{+1} clusters (6 pages)	165424
Shan-Ying Wang, Wenhui Duan, Dong-Liang Zhao, and Chong-Yu Wang	
Fluid dynamics calculation of sputtering from a cylindrical thermal spike (9 pages)	165425
M. M. Jakas, E. M. Bringa, and R. E. Johnson	
Raman resonance and orientational order in fibers of single-wall carbon nanotubes (7 pages)	165426
E. Anglaret, A. Righi, J. L. Sauvajol, P. Bernier, B. Vigolo, and P. Poulin	

Helium atom scattering experiments and molecular dynamics simulations of the structure and lattice dynamics of 15-layer acetylene films on KCl(001) (12 pages)	165427
J. P. Toennies, F. Traeger, H. Weiss, S. Picaud, and P. N. M. Hoang	
Cyclotron resonance for two-dimensional electrons on thin helium films (9 pages)	165428
J. Klier, A. Würfl, P. Leiderer, G. Mistura, and V. Shikin	
Dielectric relaxation and transport in porous silicon (7 pages)	165429
E. Axelrod, A. Givant, J. Shappir, Y. Feldman, and A. Sa'ar	
Computational study of the effect of surface defects and steps on field-stimulated exoelectron emission from aluminum (4 pages)	165430
T. Shiota, M. Morita, M. Umeno, N. Shima, M. Tagawa, and N. Ohmae	
Electronic states in zigzag carbon nanotube quantum dots (7 pages)	165431
C. G. Rocha, T. G. Dargam, and A. Latgé	
Dispersion of surface plasmon polaritons on short-pitch metal gratings (9 pages)	165432
I. R. Hooper and J. R. Sambles	
Double resonant Raman phenomena enhanced by van Hove singularities in single-wall carbon nanotubes (9 pages)	165433
J. Kürti, V. Zólyomi, A. Grüneis, and H. Kuzmany	
Vibration and vibronic coupling of C ₂₀ isomers: Ring, bowl, and cage clusters (10 pages)	165434
Mineo Saito and Yoshiyuki Miyamoto	
Scattering of He atoms from surface defects by grazing-angle diffraction beams (11 pages)	165435
D. Fariás, M. Patting, K.-H. Rieder, and J. R. Manson	
Lattice strain and static disorder in hydrogen-implanted and annealed single-crystal silicon as determined by large-angle convergent-beam electron diffraction (9 pages)	165436
Stefano Frabboni	

ERRATA

Publisher's Note: Stark effect in colloidal indium arsenide nanocrystal quantum dots: Consequences for wave-function mapping experiments [Phys. Rev. B 65 , 073307 (2002)] (1 page)	169901(E)
Michael Tews and Daniela Pfannkuche	
Erratum: Metallic state driven by frustrated electronic correlation in Cu-O double chain of PrBa ₂ Cu ₄ O ₈ [Phys. Rev. B 64 , 113103 (2001)] (1 page)	169902(E)
Hitoshi Seo and Masao Ogata	
Erratum: Two-mode Jahn-Teller effect in the absorption spectra of Fe ²⁺ in II-VI and III-V semiconductors [Phys. Rev. B 65 , 035211 (2001)] (1 page)	169903(E)
O. Mualin, E. E. Vogel, M. A. de Orue, L. Martinelli, G. Bevilacqua, and H.-J. Schulz	
Erratum: Role of symmetry on interface states in magnetic tunnel junctions [Phys. Rev. B 64 , 193404 (2001)] (1 page)	169904(E)
C. Uiberacker and P. M. Levy	

Cumulative Author Index	iii
-----------------------------------	-----