

RAPID COMMUNICATIONS

Electronic structure and strongly correlated systems

- Coupling between phonon and crystal-field excitations in multiferroic $\text{PrFe}_3(\text{BO}_3)_4$ (5 pages) 121101(R)
K. N. Boldyrev, T. N. Stanislavchuk, A. A. Sirenko, L. N. Bezmaternykh, and M. N. Popova
- Spectroscopic signatures of crystal momentum fractionalization (5 pages) 121102(R)
Andrew M. Essin and Michael Hermele
- Chern insulator at a magnetic rocksalt interface (5 pages) 121103(R)
Kevin F. Garrity and David Vanderbilt
- Resistive anisotropy due to spin-fluctuation scattering in the nematic phase of iron pnictides (5 pages) 121104(R)
Maxim Breitzkreiz, P. M. R. Brydon, and Carsten Timm
- ☞ Magneto-optical Faraday effect in spin-liquid candidates (4 pages) 121105(R)
Jacob R. Colbert, H. Dennis Drew, and Patrick A. Lee
- ^{13}C NMR study of the charge-ordered state near the superconducting transition in the organic superconductor $\beta''\text{-(BEDT-TTF)}_4[(\text{H}_3\text{O})\text{Ga}(\text{C}_2\text{O}_4)_3]\cdot\text{C}_6\text{H}_5\text{NO}_2$ (5 pages) 121106(R)
Y. Ihara, M. Jeong, H. Mayaffre, C. Berthier, M. Horvatić, H. Seki, and A. Kawamoto
- Marginal Fermi liquid versus excitonic instability in three-dimensional Dirac semimetals (5 pages) 121107(R)
J. González
- Role of axion electrodynamics in a Weyl metal: Violation of Wiedemann-Franz law (4 pages) 121108(R)
Ki-Seok Kim
- Short-range magnetic correlations in the highly correlated electron compound CeCu_4Ga (5 pages) 121109(R)
B. G. Ueland, C. F. Miclea, K. Gofryk, Y. Qiu, F. Ronning, R. Movshovich, E. D. Bauer, J. S. Gardner, and J. D. Thompson
- Thermal pure quantum states of many-particle systems (5 pages) 121110(R)
Masahiko Hyuga, Sho Sugiura, Kazumitsu Sakai, and Akira Shimizu
- Lifting of xz/yz orbital degeneracy at the structural transition in detwinned FeSe (5 pages) 121111(R)
T. Shimojima, Y. Suzuki, T. Sonobe, A. Nakamura, M. Sakano, J. Omachi, K. Yoshioka, M. Kuwata-Gonokami, K. Ono, H. Kumigashira, A. E. Böhmer, F. Hardy, T. Wolf, C. Meingast, H. v. Löhneysen, H. Ikeda, and K. Ishizaka



CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 90, NUMBER 12

SEPTEMBER 2014-15(II)

Relationship of time-reversal symmetry breaking to optical Kerr rotation (5 pages)	121112(R)
Alexander D. Fried	
Soft striped magnetic fluctuations competing with superconductivity in Fe_{1+x}Te (6 pages)	121113(R)
C. Stock, E. E. Rodriguez, O. Sobolev, J. A. Rodriguez-Rivera, R. A. Ewings, J. W. Taylor, A. D. Christianson, and M. A. Green	
Spectral weight transfer in strongly correlated $\text{Fe}_{1.03}\text{Te}$ (5 pages)	121114(R)
Y. M. Dai, A. Akrap, J. Schneeloch, R. D. Zhong, T. S. Liu, G. D. Gu, Q. Li, and C. C. Homes	
Semiconductors I: bulk	
First-principles study of high-field-related electronic behavior of group-III nitrides (5 pages)	121201(R)
Qimin Yan, Emmanouil Kioupakis, Debdeep Jena, and Chris G. Van de Walle	
Electron spin dephasing and optical pumping of nuclear spins in GaN (5 pages)	121202(R)
G. Wang, C. R. Zhu, B. L. Liu, H. Ye, A. Balocchi, T. Amand, B. Urbaszek, H. Yang, and X. Marie	
Host isotope mass effects on the hyperfine interaction of group-V donors in silicon (5 pages)	121203(R)
T. Sekiguchi, A. M. Tyryshkin, S. Tojo, E. Abe, R. Mori, H. Riemann, N. V. Abrosimov, P. Becker, H.-J. Pohl, J. W. Ager, E. E. Haller, M. L. W. Thewalt, J. J. L. Morton, S. A. Lyon, and K. M. Itoh	
Semiconductors II: surfaces, interfaces, microstructures, and related topics	
Excitation of complex spin dynamics patterns in a quantum-dot electron spin ensemble (5 pages)	121301(R)
S. Varwig, I. A. Yugova, A. René, T. Kazimierczuk, A. Greilich, D. R. Yakovlev, D. Reuter, A. D. Wieck, and M. Bayer	
Thermally enhanced photoinduced electron emission from nitrogen-doped diamond films on silicon substrates (5 pages)	121302(R)
Tianyin Sun, Franz A. M. Koeck, Aram Rezikyan, Michael M. J. Treacy, and Robert J. Nemanich	
Spectroscopic signatures of domain walls in hexagonal ErMnO_3 (5 pages)	121303(R)
Q.-C. Sun, Xiaoxiang Xi, X. Wang, N. Lee, D. Mazumdar, R. J. Smith, G. L. Carr, S.-W. Cheong, and J. L. Musfeldt	
Unidirectional spin-orbit interaction and spin-helix state in a (110)-oriented GaAs/(Al,Ga)As quantum well (5 pages)	121304(R)
Y. S. Chen, S. Fält, W. Wegscheider, and G. Salis	
Possible realization of a chiral p -wave paired state in a two-component system (5 pages)	121305(R)
Sutirtha Mukherjee, J. K. Jain, and Sudhansu S. Mandal	
All-optical implementation of a dynamic decoupling protocol for hole spins in (In,Ga)As quantum dots (5 pages)	121306(R)
S. Varwig, E. Evers, A. Greilich, D. R. Yakovlev, D. Reuter, A. D. Wieck, and M. Bayer	
Surface physics, nanoscale physics, low-dimensional systems	
Tunable Floquet Majorana fermions in driven coupled quantum dots (5 pages)	121401(R)
Yantao Li, Arijit Kundu, Fan Zhong, and Babak Seradjeh	
Hole-spin pumping and repumping in a p -type δ -doped InAs quantum dot (4 pages)	121402(R)
Konstantinos G. Lagoudakis, Kevin A. Fischer, Tomas Sarmiento, Kai Mueller, and Jelena Vučković	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 90, NUMBER 12

SEPTEMBER 2014-15(II)

Giant room-temperature spin caloritronics in spin-semiconducting graphene nanoribbons (<i>5 pages</i>)	121403(R)
Xiaobin Chen, Yizhou Liu, Bing-Lin Gu, Wenhui Duan, and Feng Liu	
Critical point for the canted antiferromagnetic to ferromagnetic phase transition at charge neutrality in bilayer graphene (<i>4 pages</i>)	121404(R)
S. Pezzini, C. Cobaleda, B. A. Piot, V. Bellani, and E. Diez	
Low-temperature illumination and annealing of ultrahigh quality quantum wells (<i>4 pages</i>)	121405(R)
M. Samani, A. V. Rossokhaty, E. Sajadi, S. Lüscher, J. A. Folk, J. D. Watson, G. C. Gardner, and M. J. Manfra	
Kondo temperature of SU(4) symmetric quantum dots (<i>5 pages</i>)	121406(R)
Michele Filippone, Cătălin Pașcu Moca, Gergely Zaránd, and Christophe Mora	
Nonperturbative phase diagram of interacting disordered Majorana nanowires (<i>5 pages</i>)	121407(R)
François Crépin, G. Zaránd, and Pascal Simon	
Stable two-dimensional dumbbell stanene: A quantum spin Hall insulator (<i>6 pages</i>)	121408(R)
Peizhe Tang, Pengcheng Chen, Wendong Cao, Huaqing Huang, Seymour Cahangirov, Lede Xian, Yong Xu, Shou-Cheng Zhang, Wenhui Duan, and Angel Rubio	
Strong optical nonlinearity of CVD-grown MoS ₂ monolayer as probed by wavelength-dependent second-harmonic generation (<i>5 pages</i>)	121409(R)
D. J. Clark, V. Senthilkumar, C. T. Le, D. L. Weerawarne, B. Shim, J. I. Jang, J. H. Shim, J. Cho, Y. Sim, M.-J. Seong, S. H. Rhim, A. J. Freeman, K.-H. Chung, and Y. S. Kim	

ARTICLES

Electronic structure and strongly correlated systems

Unveiling a crystalline topological insulator in a Weyl semimetal with time-reversal symmetry (<i>7 pages</i>)	125101
Liliana Arrachea and Armando A. Aligia	
Gutzwiller electronic structure calculations applied to transition metals: Kinetic energy gain with ferromagnetic order in bcc Fe (<i>18 pages</i>)	125102
Giovanni Borghi, Michele Fabrizio, and Erio Tosatti	
Multistage dynamics of the spin-lattice polaron formation (<i>6 pages</i>)	125104
Jan Kogoj, Zala Lenarčič, Denis Golež, Marcin Mierzejewski, Peter Prelovšek, and Janez Bonča	
Improving entanglement and thermodynamic Rényi entropy measurements in quantum Monte Carlo (<i>13 pages</i>)	125105
David J. Luitz, Xavier Plat, Nicolas Laflorencie, and Fabien Alet	
Dynamical quantum phase transitions in the axial next-nearest-neighbor Ising chain (<i>9 pages</i>)	125106
J. N. Kriel, C. Karrasch, and S. Kehrein	
Crisscrossed stripe order from interlayer tunneling in hole-doped cuprates (<i>16 pages</i>)	125108
Akash V. Maharaj, Pavan Hosur, and S. Raghu	
Strain-induced metal-insulator transition in ultrathin films of SrRuO ₃ (<i>7 pages</i>)	125109
Kapil Gupta, Basudeb Mandal, and Priya Mahadevan	
Importance of high-angular-momentum channels in pseudopotentials for quantum Monte Carlo (<i>8 pages</i>)	125110
William W. Tipton, Neil D. Drummond, and Richard G. Hennig	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 90, NUMBER 12

SEPTEMBER 2014-15(II)

Hubbard nanoclusters far from equilibrium (<i>15 pages</i>)	125111
Sebastian Hermanns, Niclas Schlünzen, and Michael Bonitz	
Ultrafast dynamics of finite Hubbard clusters: A stochastic mean-field approach (<i>8 pages</i>)	125112
Denis Lacroix, S. Hermanns, C. M. Hinz, and M. Bonitz	
Relaxation in Luttinger liquids: Bose-Fermi duality (<i>15 pages</i>)	125113
I. V. Protopopov, D. B. Gutman, and A. D. Mirlin	
Density functional plus dynamical mean-field theory of the metal-insulator transition in early transition-metal oxides (<i>17 pages</i>)	125114
Hung T. Dang, Xinyuan Ai, Andrew J. Millis, and Chris A. Marianetti	
Linear response of crystals to electromagnetic fields: Microscopic charge-current density, polarization, and magnetization (<i>14 pages</i>)	125115
Sylvia D. Swiecicki and J. E. Sipe	
Vortex lattice structure in $\text{BaFe}_2(\text{As}_{0.67}\text{P}_{0.33})_2$ via small-angle neutron scattering (<i>9 pages</i>)	125116
R. Morisaki-Ishii, H. Kawano-Furukawa, A. S. Cameron, L. Lemberger, E. Blackburn, A. T. Holmes, E. M. Forgan, L. M. DeBeer-Schmitt, K. Littrell, M. Nakajima, K. Kihou, C. H. Lee, A. Iyo, H. Eisaki, S. Uchida, J. S. White, C. D. Dewhurst, J. L. Gavilano, and M. Zolliker	
Lossless propagation of magnetic dipole excitations on chains of dielectric particles with high refractive index (<i>5 pages</i>)	125117
O. Zhuromskyy and U. Peschel	
Effects of strain on the band structure of group-III nitrides (<i>11 pages</i>)	125118
Qimin Yan, Patrick Rinke, Anderson Janotti, Matthias Scheffler, and Chris G. Van de Walle	
Role of electron-phonon interaction in a magnetically driven mechanism for superconductivity (<i>13 pages</i>)	125119
H. Bakrim and C. Bourbonnais	
Electron sampling depth and saturation effects in perovskite films investigated by soft x-ray absorption spectroscopy (<i>8 pages</i>)	125120
A. Ruosi, C. Raisch, A. Verna, R. Werner, B. A. Davidson, J. Fujii, R. Kleiner, and D. Koelle	
Anomalous nuclear magnetic resonance spectra in Bi_2Se_3 nanowires (<i>6 pages</i>)	125121
D. M. Nisson, A. P. Dioguardi, X. Peng, D. Yu, and N. J. Curro	
Photocontrol of Dirac electrons in a bulk Rashba semiconductor (<i>6 pages</i>)	125122
N. Ogawa, M. S. Bahramy, Y. Kaneko, and Y. Tokura	
Competition between Kondo screening and magnetism at the $\text{LaAlO}_3/\text{SrTiO}_3$ interface (<i>15 pages</i>)	125123
Jonathan Ruhman, Arjun Joshua, Shahal Ilani, and Ehud Altman	
Direct imaging of rare-earth ion clusters in Yb:CaF_2 (<i>14 pages</i>)	125124
B. Lacroix, C. Genevois, J. L. Doualan, G. Brasse, A. Braud, P. Ruterana, P. Camy, E. Talbot, R. Moncorgé, and J. Margerie	
High-energy collective electronic excitations in layered transition-metal dichalcogenides (<i>7 pages</i>)	125125
Pierluigi Cudazzo, Kari O. Ruotsalainen, Christoph J. Sahle, Ali Al-Zein, Helmuth Berger, Efrén Navarro-Moratalla, Simo Huotari, Matteo Gatti, and Angel Rubio	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 90, NUMBER 12

SEPTEMBER 2014-15(II)

Superconductivity in the topological insulator Bi_2Te_3 under hydrostatic pressure (<i>4 pages</i>)	125126
K. Matsubayashi, T. Terai, J. S. Zhou, and Y. Uwatoko	
Critical excitation-rate enhancement of a dipolar scatterer close to a plasmonic nanosphere and importance of multipolar self-coupling (<i>10 pages</i>)	125127
Faezeh Tork Ladani, Salvatore Campione, Caner Guclu, and Filippo Capolino	
Lattice density-functional theory of the attractive Hubbard model (<i>13 pages</i>)	125128
Matthieu Saubanère and G. M. Pastor	
Effect of electron correlation on the electronic structure and spin-lattice coupling of high- T_c cuprates: Quantum Monte Carlo calculations (<i>6 pages</i>)	125129
Lucas K. Wagner and Peter Abbamonte	
Role of oxygen vacancies in room-temperature ferromagnetism in cobalt-substituted SrTiO_3 (<i>6 pages</i>)	125130
Chandrima Mitra, Chungwei Lin, Agham B. Posadas, and Alexander A. Demkov	
Extended versus standard Holstein model: Results in two and three dimensions (<i>8 pages</i>)	125131
Carl J. Chandler and F. Marsiglio	
Orbital magnetization of correlated electrons with arbitrary band topology (<i>10 pages</i>)	125132
R. Nourafkan, G. Kotliar, and A.-M. S. Tremblay	
Spin-orbit spillage as a measure of band inversion in insulators (<i>7 pages</i>)	125133
Jianpeng Liu and David Vanderbilt	
Electrical resistivity of single crystals of LaFeAsO under applied pressure (<i>7 pages</i>)	125134
C. A. McElroy, J. J. Hamlin, B. D. White, S. T. Weir, Y. K. Vohra, and M. B. Maple	
Effects of disorder on electron tunneling through helical edge states (<i>13 pages</i>)	125135
Pietro Sternativo and Fabrizio Dolcini	
Ground state and spectral properties across a charge density wave transition in a triangular lattice spinless fermion model (<i>7 pages</i>)	125136
Trithip Devakul and Rajiv R. P. Singh	
Interorbital interaction in the one-dimensional periodic Anderson model: Density matrix renormalization group study (<i>9 pages</i>)	125137
I. Hagymási, J. Sólyom, and Ö. Legeza	
Symmetry and the thermodynamics of currents in open quantum systems (<i>11 pages</i>)	125138
Daniel Manzano and Pablo I. Hurtado	
Probing coherent Cooper pair splitting with cavity photons (<i>7 pages</i>)	125139
Audrey Cottet	
Derivation of nonlinear single-particle equations via many-body Lindblad superoperators: A density-matrix approach (<i>9 pages</i>)	125140
Roberto Rosati, Rita Claudia Iotti, Fabrizio Dolcini, and Fausto Rossi	
Strong-disorder renormalization-group study of the one-dimensional tight-binding model (<i>10 pages</i>)	125141
H. Javan Mard, José A. Hoyos, E. Miranda, and V. Dobrosavljević	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 90, NUMBER 12

SEPTEMBER 2014-15(II)

Verwey transition in Fe_3O_4 thin films: Influence of oxygen stoichiometry and substrate-induced microstructure (9 pages)	125142
X. H. Liu, A. D. Rata, C. F. Chang, A. C. Komarek, and L. H. Tjeng	
Chiral symmetry and bulk-boundary correspondence in periodically driven one-dimensional systems (7 pages) . . .	125143
J. K. Asbóth, B. Tarasinski, and P. Delplace	
Superfluid/Bose-glass transition in one dimension (19 pages)	125144
Zoran Ristivojevic, Aleksandra Petković, Pierre Le Doussal, and Thierry Giamarchi	
Dielectric response of electron-doped ionic superconductor Li_xZrNCl (10 pages)	125145
Antia S. Botana and Warren E. Pickett	
Thin torus perturbative analysis of elementary excitations in the Gaffnian and Haldane-Rezayi quantum Hall states (7 pages)	125146
Amila Weerasinghe and Alexander Seidel	
Fermi surface evolution and d -wave superconductivity in CeCoIn_5 : Analysis based on LDA+DMFT method (9 pages)	125147
Takuya Nomoto and Hiroaki Ikeda	
Two spatially separated phases in semiconducting $\text{Rb}_{0.8}\text{Fe}_{1.5}\text{S}_2$ (7 pages)	125148
Meng Wang, Wei Tian, P. Valdivia, Songxue Chi, E. Bourret-Courchesne, Pengcheng Dai, and R. J. Birgeneau	
Non-Fermi-liquid behavior in nonequilibrium transport through Co-doped Au chains connected to fourfold symmetric leads (10 pages)	125149
S. Di Napoli, P. Roura-Bas, Andreas Weichselbaum, and A. A. Aligia	
Correlation energy within exact-exchange adiabatic connection fluctuation-dissipation theory: Systematic development and simple approximations (10 pages)	125150
Nicola Colonna, Maria Hellgren, and Stefano de Gironcoli	
Dynamic response of a spin- $\frac{1}{2}$ Kondo singlet (6 pages)	125151
Bryan Hemingway, Stephen Herbert, Michael Melloch, and Andrei Kogan	
Tuning the hydrogen desorption of $\text{Mg}(\text{BH}_4)_2$ through Zn alloying (12 pages)	125152
D. Harrison and T. Thonhauser	
How disorder affects the Berry-phase anomalous Hall conductivity: A reciprocal-space analysis (9 pages)	125153
Raffaello Bianco, Raffaele Resta, and Ivo Souza	
Unconstrained tree tensor network: An adaptive gauge picture for enhanced performance (10 pages)	125154
M. Gerster, P. Silvi, M. Rizzi, R. Fazio, T. Calarco, and S. Montangero	
Tailoring the interfacial magnetic anisotropy in multiferroic field-effect devices (6 pages)	125155
Daniele Preziosi, Ignasi Fina, Eckhard Pippel, Dietrich Hesse, Xavi Marti, Francis Bern, Michael Ziese, and Marin Alexe	
Biaxial strain-induced transport property changes in atomically tailored SrTiO_3 -based systems (8 pages)	125156
Z. Huang, Z. Q. Liu, M. Yang, S. W. Zeng, A. Annadi, W. M. Lü, X. L. Tan, P. F. Chen, L. Sun, X. Renshaw Wang, Y. L. Zhao, C. J. Li, J. Zhou, K. Han, W. B. Wu, Y. P. Feng, J. M. D. Coey, T. Venkatesan, and Ariando	
Memory function approach to in-plane anisotropic resistivity in the antiferromagnetic phase of iron arsenide superconductors (6 pages)	125157
Koudai Sugimoto, Peter Prelovšek, Eiji Kaneshita, and Takami Tohyama	

(Continued)

High-energy damping by particle-hole excitations in the spin-wave spectrum of iron-based superconductors (<i>6 pages</i>)	125158
Zhidong Leong, Wei-Cheng Lee, Weicheng Lv, and Philip Phillips	
Reorganization of a topological surface state: Theory for Bi ₂ Te ₃ (111) covered by noble metals (<i>9 pages</i>)	125159
Francisco Muñoz, Markus Flieger, Jürgen Henk, and Ingrid Mertig	
Semiconductors I: bulk	
NMR study of native defects in PbSe (<i>6 pages</i>)	125201
D. Koumoulis, R. E. Taylor, D. King, Jr., and L.-S. Bouchard	
First-principles study of point defects in chalcopyrite ZnSnP ₂ (<i>12 pages</i>)	125202
Yu Kumagai, Minseok Choi, Yoshitaro Nose, and Fumiyasu Oba	
Exciton decay dynamics controlled by impurity occupation in strongly Mn-doped and partially compensated bulk GaAs (<i>7 pages</i>)	125203
F. Münzhuber, T. Henn, T. Kiessling, W. Ossau, L. W. Molenkamp, B. Giesekeing, G. V. Astakhov, and V. Dyakonov	
Experimental study of the valence band of Bi ₂ Se ₃ (<i>7 pages</i>)	125204
Yi-Bin Gao (高亦斌), Bin He, David Parker, Ioannis Androulakis, and Joseph P. Heremans	
Determination of <i>s-d</i> exchange coupling in GaMnN by time-resolved Kerr rotation spectroscopy (<i>5 pages</i>)	125205
Wei-Ting Hsu, Ting-Yen Hsieh, Hsin-Feng Chen, Feng-Wen Huang, Po-Cheng Chen, Jinn-Kong Sheu, and Wen-Hao Chang	
Semiconductors II: surfaces, interfaces, microstructures, and related topics	
Assignments of transitions in optically-pumped NMR of GaAs/AlGaAs quantum wells on a bulk GaAs substrate (<i>9 pages</i>)	125301
E. L. Sesti, D. D. Wheeler, S. E. Hayes, D. Saha, G. D. Sanders, and C. J. Stanton	
Tight-binding simulations of electrically driven spin-valley transitions in carbon nanotube quantum dots (<i>12 pages</i>)	125302
E. N. Osika, A. Mreńca, and B. Szafran	
Capacitive coupling of singlet-triplet qubits in different interqubit geometries (<i>11 pages</i>)	125303
Tuukka Hiltunen and Ari Harju	
Tunable magnetic properties of transition metal doped MoS ₂ (<i>7 pages</i>)	125304
Antonis N. Andriotis and Madhu Menon	
Asymmetric Cherenkov acoustic reverse in topological insulators (<i>5 pages</i>)	125305
Sergey Smirnov	
High-field charge transport on the surface of Bi ₂ Se ₃ (<i>6 pages</i>)	125306
M. Q. Weng and M. W. Wu	
Superradiance and enhanced luminescence from ensembles of a few self-assembled quantum dots (<i>5 pages</i>)	125307
Wildan Abdussalam and Paweł Machnikowski	
Excitonic effects in intraband quantum dot spectroscopy: Formation of bound continuum excitons (<i>6 pages</i>)	125308
Sandra C. Kuhn and Marten Richter	

(Continued)

Weak localization, spin relaxation, and spin diffusion: Crossover between weak and strong Rashba coupling limits (<i>11 pages</i>)	125309
Yasufumi Araki, Guru Khalsa, and Allan H. MacDonald	
Spectroscopy of the D_1 transition of cesium by dressed-state resonance fluorescence from a single (In,Ga)As/GaAs quantum dot (<i>4 pages</i>)	125310
S. M. Ulrich, S. Weiler, M. Oster, M. Jetter, A. Urvoy, R. Löw, and P. Michler	
Spin-polarized electron transfer in ferromagnet/C ₆₀ interfaces (<i>6 pages</i>)	125311
Timothy Moorsom, May Wheeler, Taukeer Mohd Khan, Fatma Al Ma'Mari, Christian Kinane, Sean Langridge, David Ciudad, Amílcar Bedoya-Pinto, Luis Hueso, Gilberto Teobaldi, Vlado K. Lazarov, Daniel Gilks, Gavin Burnell, Bryan J. Hickey, and Oscar Cespedes	
Topological α -Sn surface states versus film thickness and strain (<i>9 pages</i>)	125312
S. Küfner, M. Fitzner, and F. Bechstedt	
Impurity electrons in narrow electric-field-biased armchair graphene nanoribbons (<i>13 pages</i>)	125313
B. S. Monozon and P. Schmelcher	
Effective interaction and condensation of dipolaritons in coupled quantum wells (<i>10 pages</i>)	125314
Tim Byrnes, German V. Kolmakov, Roman Ya. Kezerashvili, and Yoshihisa Yamamoto	
Structural and magnetic confinement of holes in the spin-polarized emission of coupled quantum ring-quantum dot chains (<i>8 pages</i>)	125315
Vivaldo Lopes-Oliveira, Yuriy I. Mazur, Leonardo Dias de Souza, Lucas A. Bernardes Marçal, Jiang Wu, Marcio Daldin Teodoro, Angelo Malachias, Vitaliy G. Dorogan, Mourad Benamara, Georgiy G. Tarasov, Euclides Marega, Jr., Gilmar E. Marques, Zhiming M. Wang, Milan Orlita, Gregory J. Salamo, and Victor Lopez-Richard	
Orbital magnetic ratchet effect (<i>5 pages</i>)	125316
G. V. Budkin and L. E. Golub	
Surface physics, nanoscale physics, low-dimensional systems	
Long-wavelength optical phonon behavior in uniaxial strained graphene: Role of electron-phonon interaction (<i>12 pages</i>)	125401
M. Assili and S. Haddad	
Cavity-coupled double-quantum dot at finite bias: Analogy with lasers and beyond (<i>12 pages</i>)	125402
Manas Kulkarni, Ovidiu Cotlet, and Hakan E. Türeci	
Overcoming the polarization catastrophe in the rocksalt oxides MgO and CaO (<i>12 pages</i>)	125403
Benjamin E. Gaddy, Elizabeth A. Paisley, Jon-Paul Maria, and Douglas L. Irving	
Nanometer-scale tomographic reconstruction of three-dimensional electrostatic potentials in GaAs/AlGaAs core-shell nanowires (<i>7 pages</i>)	125404
A. Lubk, D. Wolf, P. Prete, N. Lovergine, T. Niermann, S. Sturm, and H. Lichte	
Magnetic restrictions of atomic collapse in gapped graphene (<i>9 pages</i>)	125405
Jia-Lin Zhu, Chuan Liu, and Ning Yang	
 Statistics of sub-Poissonian nucleation in a nanophase (<i>15 pages</i>)	125406
Frank Glas	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 90, NUMBER 12

SEPTEMBER 2014-15(II)

Bistability in microcavities with incoherent optical or electrical excitation (6 pages)	125407
O. Kyriienko, E. A. Ostrovskaya, O. A. Egorov, I. A. Shelykh, and T. C. H. Liew	
On-surface synthesis of a two-dimensional porous coordination network: Unraveling adsorbate interactions (8 pages)	125408
Manfred Matena, Jonas Björk, Markus Wahl, Tien-Lin Lee, Jörg Zegenhagen, Lutz H. Gade, Thomas A. Jung, Mats Persson, and Meike Stöhr	
Valence band and core-level photoemission of Au/Ge(001): Band mapping and bonding sites (8 pages)	125409
S. Meyer, L. Dudy, J. Schäfer, C. Blumenstein, P. Höpfner, T. E. Umbach, A. Dollinger, X. Y. Cui, L. Patthey, and R. Claessen	
Signatures of localization in the effective metallic regime of high-mobility Si MOSFETs (9 pages)	125410
S. Das Sarma, E. H. Hwang, K. Kechedzhi, and L. A. Tracy	
RKKY interaction between extended magnetic defect lines in graphene (6 pages)	125411
P. D. Gorman, J. M. Duffy, S. R. Power, and M. S. Ferreira	
Magnetoelectric effect in bilayer graphene controlled by valley-isospin density (5 pages)	125412
U. Zülicke and R. Winkler	
Quantum interference in off-resonant transport through single molecules (11 pages)	125413
Kim G. L. Pedersen, Mikkel Strange, Martin Leijnse, Per Hedegård, Gemma C. Solomon, and Jens Paaske	
Phonon-limited resistivity of graphene by first-principles calculations: Electron-phonon interactions, strain-induced gauge field, and Boltzmann equation (18 pages)	125414
Thibault Sohier, Matteo Calandra, Cheol-Hwan Park, Nicola Bonini, Nicola Marzari, and Francesco Mauri	
Capacitance of graphene in aqueous electrolytes: The effects of dielectric saturation of water and finite size of ions (9 pages)	125415
P. Sharma and Z. L. Mišković	
Radiation-induced quantum Fano-type resonances in the transport of n - p - n graphene-based junctions (5 pages)	125416
M. V. Fistul and K. B. Efetov	
Experimental investigation of nonlinear optical properties of Ag nanoparticles: Effects of size quantization (6 pages)	125417
Rodrigo Sato, Masato Ohnuma, Keiji Oyoshi, and Yoshihiko Takeda	
Boron and nitrogen codoping effect on transport properties of carbon nanotubes (6 pages)	125418
R. Zoubkoff, F. Triozon, Y.-M. Niquet, and S. Latil	
Pseudomagnetic fields in graphene nanobubbles of constrained geometry: A molecular dynamics study (20 pages)	125419
Zenán Qi, Alexander L. Kitt, Harold S. Park, Vitor M. Pereira, David K. Campbell, and A. H. Castro Neto	
☞ TiN/(Al,Sc)N metal/dielectric superlattices and multilayers as hyperbolic metamaterials in the visible spectral range (14 pages)	125420
Bivas Saha, Gururaj V. Naik, Sammy Saber, Cem Akatay, Eric A. Stach, Vladimir M. Shalaev, Alexandra Boltasseva, and Timothy D. Sands	
Electron-vibration effects on the thermoelectric efficiency of molecular junctions (10 pages)	125421
C. A. Perroni, D. Ninno, and V. Cataudella	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 90, NUMBER 12

SEPTEMBER 2014-15(II)

Metamaterial broadband angular selectivity (5 pages)	125422
Yichen Shen, Dexin Ye, Li Wang, Ivan Celanovic, Lixin Ran, John D. Joannopoulos, and Marin Soljačić	
Resonant interaction of molecular vibrations and surface plasmon polaritons: The weak coupling regime (5 pages)	125423
S. Kalusniak, S. Sadofev, and F. Henneberger	
Phonon-assisted radiative recombination of excitons confined in strongly anisotropic nanostructures (10 pages)	125424
Ł. Dusanowski, A. Musiał, A. Maryński, P. Mrowiński, J. Andrzejewski, P. Machnikowski, J. Misiewicz, A. Somers, S. Höfling, J. P. Reithmaier, and G. Sęk	
Optical bistability of graphene in the terahertz range (9 pages)	125425
N. M. R. Peres, Yu. V. Bludov, Jaime E. Santos, Antti-Pekka Jauho, and M. I. Vasilevskiy	
Current flow in biased bilayer graphene: Role of sublattices (8 pages)	125426
C. J. Páez, D. A. Bahamon, and Ana L. C. Pereira	
Single-molecule light emission at room temperature on a wide-band-gap semiconductor (6 pages)	125427
H. Yang, A. J. Mayne, G. Comtet, G. Dujardin, Y. Kuk, S. Nagarajan, and A. Gourdon	
Emergence of bound states in ballistic magnetotransport of graphene antidots (7 pages)	125428
P. Rakya, E. Tóvári, M. Csontos, Sz. Csonka, A. Csordás, and J. Cserti	
Electrically controllable magnetic order in the bilayer Hubbard model on honeycomb lattice: A determinant quantum Monte Carlo study (7 pages)	125429
Jinhua Sun, Dong-Hui Xu, Yi Zhou, and Fu-Chun Zhang	
Quantum confinement and band offsets in amorphous silicon quantum wells (7 pages)	125430
K. Jarolimek, R. A. de Groot, G. A. de Wijs, and M. Zeman	
Spin-flip Raman scattering of the Γ -X mixed exciton in indirect band gap (In,Al)As/AlAs quantum dots (10 pages)	125431
J. Debus, T. S. Shamirzaev, D. Dunker, V. F. Sapega, E. L. Ivchenko, D. R. Yakovlev, A. I. Toropov, and M. Bayer	
Weak competing interactions control assembly of strongly bonded TCNQ ionic acceptor molecules on silver surfaces (7 pages)	125432
Changwon Park, Geoffrey A. Rojas, Seokmin Jeon, Simon J. Kelly, Sean C. Smith, Bobby G. Sumpter, Mina Yoon, and Petro Maksymovych	
Induced work function changes at Mg-doped MgO/Ag(001) interfaces: Combined Auger electron diffraction and density functional study (11 pages)	125433
T. Jaouen, P. Aebi, S. Tricot, G. Delhaye, B. Lépine, D. Sébilleau, G. Jézéquel, and P. Schieffer	
Three-dimensional massless Dirac fermions in carbon schwarzites (6 pages)	125434
Aurélien Lherbier, Humberto Terrones, and Jean-Christophe Charlier	
Interplay of local and global interfacial electronic structure of a strongly coupled dipolar organic semiconductor (10 pages)	125435
Nahid Ilyas and Oliver L. A. Monti	
In-plane magnetic field effect on hole cyclotron mass and g_z factor in high-mobility SiGe/Ge/SiGe structures (8 pages)	125436
I. L. Drichko, V. A. Malyshev, I. Yu. Smirnov, L. E. Golub, S. A. Tarasenko, A. V. Suslov, O. A. Mironov, M. Kummer, and H. von Känel	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 90, NUMBER 12

SEPTEMBER 2014-15(II)

Atomic mechanisms and diffusion anisotropy of Cu tetramers on Cu(111) (<i>12 pages</i>)	125437
J. Ferrón, R. Miranda, and J. J. de Miguel	
Photoinduced quantum spin and valley Hall effects, and orbital magnetization in monolayer MoS ₂ (<i>5 pages</i>)	125438
M. Tahir, A. Manchon, and U. Schwingenschlögl	
Antiferromagnetic superexchange mediated by a resonant surface state in Sn/Si(111) (<i>5 pages</i>)	125439
Jun-Ho Lee, Xiao-Yan Ren, Yu Jia, and Jun-Hyung Cho	
Transition-metal dichalcogenide bilayers: Switching materials for spintronic and valleytronic applications (<i>6 pages</i>)	125440
Nouridine Zibouche, Pier Philipsen, Agnieszka Kuc, and Thomas Heine	
Electrical contacts to monolayer black phosphorus: A first-principles investigation (<i>6 pages</i>)	125441
Kui Gong, Lei Zhang, Wei Ji, and Hong Guo	
RKKY interaction on surfaces of topological insulators with superconducting proximity effect (<i>5 pages</i>)	125443
Alexander A. Zyuzin and Daniel Loss	
Spin- and valley-dependent magnetotransport in periodically modulated silicene (<i>11 pages</i>)	125444
Kh. Shakouri, P. Vasilopoulos, V. Vargiamidis, and F. M. Peeters	
Nanoparticle arrays: From magnetic response to coupled plasmon resonances (<i>13 pages</i>)	125445
V. G. Kravets, F. Schedin, G. Pisano, B. Thackray, P. A. Thomas, and A. N. Grigorenko	
Wigner localization in a graphene quantum dot with a mass gap (<i>6 pages</i>)	125446
K. A. Guerrero-Becerra and Massimo Rontani	
Single-molecule magnet Mn ₁₂ on graphene (<i>7 pages</i>)	125447
Xiang-Guo Li, James N. Fry, and Hai-Ping Cheng	
van der Waals effects at molecule-metal interfaces (<i>8 pages</i>)	125448
Marta Rosa, Stefano Corni, and Rosa Di Felice	
Preferential antiferromagnetic coupling of vacancies in graphene on SiO ₂ : Electron spin resonance and scanning tunneling spectroscopy (<i>9 pages</i>)	125449
S. Just, S. Zimmermann, V. Kataev, B. Büchner, M. Pratzer, and M. Morgenstern	
 Vibrational cooling and thermoelectric response of nanoelectromechanical systems (<i>12 pages</i>)	125450
Liliana Arrachea, Niels Bode, and Felix von Oppen	