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 84, NUMBER 22 *CONTENTS* **DECEMBER 2011-1(II)**

RAPID COMMUNICATIONS

Structure, structural phase transitions, mechanical properties, defects

Elucidation of the dynamics for hot-spot initiation at nonuniform interfaces of highly shocked materials *(5 pages)* 220101(R)
Qi An, Sergey V. Zybin, William A. Goddard III, Andres Jaramillo-Botero, Mario Blanco, and Sheng-Nian Luo

Spectroscopic mapping of local structural distortions in ferroelectric $PbTiO_3/SrTiO_3$ superlattices at the unit-cell scale *(6 pages)* . . . . . 220102(R)
Almudena Torres-Pardo, Alexandre Gloter, Pavlo Zubko, Noémie Jecklin, Céline Lichtensteiger, Christian Colliex, Jean-Marc Triscone, and Odile Stéphan

Pentavacancy as the key nucleus for vacancy clustering in aluminum *(5 pages)* . . . . . 220103(R)
Hao Wang, David Rodney, Dongsheng Xu, Rui Yang, and Patrick Veyssière

Ground-state structures of ice at high pressures from *ab initio* random structure searching *(4 pages)* . . . . . 220104(R)
Jeffrey M. McMahon

Ultrahigh-pressure phases of H_2O ice predicted using an adaptive genetic algorithm *(4 pages)* . . . . . 220105(R)
Min Ji, Koichiro Umemoto, Cai-Zhuang Wang, Kai-Ming Ho, and Renata M. Wentzcovitch

Polymorphism and phase transformations of $Li_{2-x}FeSiO_4$ ($0 \leqslant x \leqslant 2$) from first principles *(5 pages)* . . . . . 220106(R)
Dong-Hwa Seo (서동화), Hyungsub Kim (김형섭), Inchul Park (박인철), Jihyun Hong(홍지현), and Kisuk Kang(강기석)

Inhomogeneous, disordered, and partially ordered systems

Thermal-activation model for freezing and the elastic robustness of bulk metallic glasses *(4 pages)* . . . . . 220201(R)
P. M. Derlet and R. Maaß

Dynamics, dynamical systems, lattice effects:

Anharmonic thermal motion of atoms in thermoelectric Mg_2Si studied via convergent-beam electron diffraction *(4 pages)* . . . . . 220301(R)
K. Valset, J. Taftø, L. Wu, and Y. Zhu

Magnetism

Quantum transport of two-dimensional Dirac fermions in $SrMnBi_2$ *(4 pages)* . . . . . 220401(R)
Kefeng Wang (王克锋), D. Graf, Hechang Lei (雷和畅), S. W. Tozer, and C. Petrovic

Copyright 2011 by American Physical Society

(Continued)

1098-0121(20111201)84:22;1-Y

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 84, NUMBER 22** **DECEMBER 2011-1(II)**

Accurate determination of the Gaussian transition in spin-1 chains with single-ion anisotropy *(4 pages)* . . . . . 220402(R)
Shijie Hu, B. Normand, Xiaoqun Wang, and Lu Yu

Magnetic nanoscale laminates with tunable exchange coupling from first principles *(5 pages)* . . . . . 220403(R)
M. Dahlqvist, B. Alling, I. A. Abrikosov, and J. Rosen

Intrinsic and extrinsic nonstationary field-driven processes in the spin-ice compound $Dy_2Ti_2O_7$ *(5 pages)* . . . . . 220404(R)
S. Erfanifam, S. Zherlitsyn, J. Wosnitza, R. Moessner, O. A. Petrenko, G. Balakrishnan, and A. A. Zvyagin

Spin lifetime in small ensembles of electron spins measured by magnetic resonance force microscopy *(4 pages)* . . . . . 220405(R)
K. C. Fong, M. R. Herman, P. Banerjee, D. V. Pelekhov, and P. C. Hammel

Spin-gap opening accompanied by a strong magnetoelastic response in the $S = 1$ magnetic dimer system $Ba_3BiRu_2O_9$ *(4 pages)* . . . . . 220406(R)
Wojciech Miiller, Maxim Avdeev, Qingdi Zhou, Andrew J. Studer, Brendan J. Kennedy, Gordon J. Kearley, and Chris D. Ling

High magnetic field induced phases and half-magnetization plateau in the $S = 1$ kagome compound $Ni_3V_2O_8$ *(5 pages)* . . . . . 220407(R)
Junfeng Wang, M. Tokunaga, Z. Z. He, J. I. Yamaura, A. Matsuo, and K. Kindo

Magnetic order in GdBiPt studied by x-ray resonant magnetic scattering *(4 pages)* . . . . . 220408(R)
A. Kreyssig, M. G. Kim, J. W. Kim, D. K. Pratt, S. M. Sauerbrei, S. D. March, G. R. Tesdall, S. L. Bud'ko, P. C. Canfield, R. J. McQueeney, and A. I. Goldman

Potential explanation of charge response of magnetization in nanoporous systems *(4 pages)* . . . . . 220409(R)
S. Subkow and M. Fähnle

Effects of nanostructuring and substrate symmetry on antiferromagnetic domain structure in $LaFeO_3$ thin films *(5 pages)* . . . . . 220410(R)
E. Folven, A. Scholl, A. Young, S. T. Retterer, J. E. Boschker, T. Tybell, Y. Takamura, and J. K. Grepstad

Superfluidity and superconductivity

Anisotropic magnetoelastic coupling in single-crystalline CeFeAsO as seen via high-resolution x-ray diffraction *(5 pages)* . . . . . 220501(R)
H.-F. Li (李海峰), J.-Q. Yan, J. W. Kim, R. W. McCallum, T. A. Lograsso, and D. Vaknin

Magnetic-field-induced stabilization of nonequilibrium superconductivity in a normal-metal/insulator/superconductor junction *(4 pages)* . . . . . 220502(R)
J. T. Peltonen, J. T. Muhonen, M. Meschke, N. B. Kopnin, and J. P. Pekola

Dispersive readout of a flux qubit at the single-photon level *(4 pages)* . . . . . 220503(R)
J. E. Johnson, E. M. Hoskinson, C. Macklin, D. H. Slichter, I. Siddiqi, and John Clarke

Superconductivity in the topological semimetal YPtBi *(5 pages)* . . . . . 220504(R)
N. P. Butch, P. Syers, K. Kirshenbaum, A. P. Hope, and J. Paglione

Local spin fluctuations in iron-based superconductors: ^{77}Se and ^{87}Rb NMR measurements on $Tl_{0.47}Rb_{0.34}Fe_{1.63}Se_2$ *(5 pages)* . . . . . 220505(R)
Long Ma, G. F. Ji, Jia Dai, J. B. He, D. M. Wang, G. F. Chen, Bruce Normand, and Weiqiang Yu

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 84, NUMBER 22** **DECEMBER 2011-1(II)**

Coexistence of strong nematic and superconducting correlations in a two-dimensional Hubbard model *(4 pages)* . . . . . 220506(R)
Shi-Quan Su and Thomas A. Maier

Coexistence of isotropic and extended *s*-wave order parameters in FeSe as revealed by low-temperature specific heat *(5 pages)* . . . . . 220507(R)
J.-Y. Lin, Y. S. Hsieh, D. A. Chareev, A. N. Vasiliev, Y. Parsons, and H. D. Yang

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

Concise relation of substitution energy to macroscopic deformation in a deformed system *(4 pages)* 224101
Wei Liu, Wei-Lu Wang, Q. F. Fang, C. S. Liu, Qun-Ying Huang, and Yi-Can Wu

Transition of creep mechanism in nanocrystalline metals *(7 pages)* 224102
Yun-Jiang Wang, Akio Ishii, and Shigenobu Ogata

One-dimensional models and thermomechanical properties of solids *(4 pages)* 224103
Paolo De Gregorio, Lamberto Rondoni, Michele Bonaldi, and Livia Conti

Three-dimensional imaging of a phase object from a single sample orientation using an optical laser *(7 pages)* . . . 224104
Chien-Chun Chen, Huaidong Jiang, Lu Rong, Sara Salha, Rui Xu, Thomas G. Mason, and Jianwei Miao

Ferroelectric transitions in epitaxial $Pb_{0.5}Sr_{0.5}TiO_3$ films studied by dielectric analysis *(10 pages)* 224105
M. Tyunina, M. Plekh, M. Antonova, and A. Kalvane

Energetics of hydrogen/lithium complexes in silicon analyzed using the Maxwell construction *(5 pages)* 224106
Andrew J. Morris, C. P. Grey, R. J. Needs, and Chris J. Pickard

Dislocation core field. II. Screw dislocation in iron *(12 pages)* 224107
Emmanuel Clouet, Lisa Ventelon, and F. Willaime

Pressure-induced structural transitions in BN from *ab initio* metadynamics *(7 pages)* 224108
Liliana Hromadová and Roman Martoňák

First-principles equation-of-state table of deuterium for inertial confinement fusion applications *(18 pages)* 224109
S. X. Hu (胡素兴), B. Militzer, V. N. Goncharov, and S. Skupsky

Ultrashort-pulse laser ablation of nanocrystalline aluminum *(16 pages)* 224110
Maxime Gill-Comeau and Laurent J. Lewis

Dislocation core field. I. Modeling in anisotropic linear elasticity theory *(7 pages)* 224111
Emmanuel Clouet

Path-integral simulation of ice I_h: The effect of pressure *(11 pages)* 224112
Carlos P. Herrero and Rafael Ramírez

Dirac cones at $\vec{k} = 0$ in phononic crystals *(8 pages)* 224113
Fengming Liu, Yun Lai, Xueqin Huang, and C. T. Chan

Intricate relationship between pressure-induced electronic and structural transformations in $FeCr_2S_4$ *(9 pages)* . . . 224114
Y. Amiel, G. Kh. Rozenberg, N. Nissim, A. Milner, M. P. Pasternak, M. Hanfland, and R. D. Taylor

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 84, NUMBER 22** **DECEMBER 2011-1(II)**

Role of magnetic exchange energy on charge ordering in $R_{1/3}Sr_{2/3}FeO_3$ (R = La, Pr, and Nd) *(13 pages)* 224115
J. Ma, J.-Q. Yan, S. O. Diallo, R. Stevens, A. Llobet, F. Trouw, D. L. Abernathy, M. B. Stone, and R. J. McQueeney

Polyamorphic transitions in Ce-based metallic glasses by synchrotron radiation *(7 pages)* 224116
M. J. Duarte, P. Bruna, E. Pineda, D. Crespo, G. Garbarino, R. Verbeni, K. Zhao, W. H. Wang, A. H. Romero, and J. Serrano

Time-domain simulation of electron diffraction in crystals *(10 pages)* 224117
Jia-An Yan, J. A. Driscoll, B. K. Wyatt, K. Varga, and S. T. Pantelides

Temperature effect on ideal shear strength of Al and Cu *(7 pages)* 224118
Albert M. Iskandarov, Sergey V. Dmitriev, and Yoshitaka Umeno

Ab initio study of pressure stabilized NiTi allotropes: Pressure-induced transformations and hysteresis loops *(8 pages)* 224119
David Holec, Martin Friák, Antonín Dlouhý, and Jörg Neugebauer

EXAFS study of layered cobaltates under pressure *(5 pages)* 224120
C. Popescu, J.-P. Itie, A. Congedutti, P. Lagarde, A.-M. Flank, L. Pinsard-Gaudart, and N. Dragoe

In situ high-pressure synchrotron x-ray diffraction study of $CeVO_4$ and $TbVO_4$ up to 50 GPa *(8 pages)* 224121
D. Errandonea, R. S. Kumar, S. N. Achary, and A. K. Tyagi

Inhomogeneous, disordered, and partially ordered systems

Magnetic properties of σ- and hexagonal-$Mn_{76}Si_{18}Cr_6$ approximant phases of a dodecagonal quasicrystal *(11 pages)* 224201
S. Kashimoto, A. Kocjan, Z. Jagličić, S. Jazbec, H. Iga, T. Ishimasa, and J. Dolinšek

Polymerization transition in liquid AsS under pressure: An *ab initio* molecular dynamics study *(7 pages)* 224202
Satoshi Ohmura and Fuyuki Shimojo

Dynamics, dynamical systems, lattice effects:

Radiative heat transfer from a black body to dielectric nanoparticles *(7 pages)* 224301
Yann Chalopin, Hichem Dammak, Marine Laroche, Marc Hayoun, and Jean-Jacques Greffet

Universal nonequilibrium quantum dynamics in imaginary time *(8 pages)* 224303
C. De Grandi, A. Polkovnikov, and A. W. Sandvik

Direct observation of two-phonon bound states in ZnTe *(4 pages)* 224304
Jianbo Hu, Oleg V. Misochko, and Kazutaka G. Nakamura

Phonon softening near the structural transition in $BaFe_2As_2$ observed by inelastic x-ray scattering *(5 pages)* 224305
Jennifer L. Niedziela, D. Parshall, K. A. Lokshin, A. S. Sefat, A. Alatas, and T. Egami

Generalized phonon density of states of Mo_3Sb_7 and $Mo_3Sb_{5.4}Te_{1.6}$ from inelastic neutron scattering and lattice dynamical calculations *(8 pages)* 224306
C. Candolfi, B. Lenoir, A. Dauscher, M. M. Koza, M. de Boissieu, M. Sternik, and K. Parlinski

Evaluation of the thermal phonon emission in dynamic fracture of brittle crystals *(10 pages)* 224307
Fouad Atrash and Dov Sherman

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 84, NUMBER 22** **DECEMBER 2011-1(II)**

First-principles study and modeling of strain-dependent ionic migration in ZrO_2 *(7 pages)* 224308
J. A. Hirschfeld and H. Lustfeld

Thermal conductivity and diffusion-mediated localization in $Fe_{1-x}Cr_x$ alloys from first principles *(4 pages)* 224309
Aftab Alam, Rajiv K. Chouhan, and Abhijit Mookerjee

Magnetism

Magnetic phase diagram of $YbCo_2Si_2$ derived from magnetization measurements *(7 pages)* 224401
L. Pedrero, C. Klingner, C. Krellner, M. Brando, C. Geibel, and F. Steglich

Anomalous magneto-optical Kerr hysteresis loops in $Fe_{0.25}TaS_2$ *(5 pages)* 224402
Chanjuan Sun, Junichiro Kono, Adilet Imambekov, and Emilia Morosan

Spin scattering and spin-polarized hybrid interface states at a metal-organic interface *(7 pages)* 224403
T. Methfessel, S. Steil, N. Baadji, N. Großmann, K. Koffler, S. Sanvito, M. Aeschlimann, M. Cinchetti, and H. J. Elmers

Polymorphic magnetization and local ferromagnetic structure in Co-doped Mn_2NiGa alloys *(9 pages)* 224404
L. Ma (马丽), W. H. Wang (王文洪), C. M. Zhen (甄聪棉), D. L. Hou (侯登录), X. D. Tang (唐晓丹), E. K. Liu (刘恩克), and G. H. Wu (吴光恒)

Electron-phonon scattering dynamics in ferromagnetic metals and their influence on ultrafast demagnetization processes *(11 pages)* 224405
Sven Essert and Hans Christian Schneider

Electronic properties of the Kondo lattice U_2Pt_2Sn *(11 pages)* 224406
Lan Maria Tran, Bogdan Nowak, and Vinh Hung Tran

Tensor network simulation of the phase diagram of the frustrated J_1-J_2 Heisenberg model on a checkerboard lattice *(4 pages)* 224407
Y.-H. Chan, Y.-J. Han, and L.-M. Duan

All-optical magnetization recording by tailoring optical excitation parameters *(8 pages)* 224408
Daniel Steil, Sabine Alebrand, Alexander Hassdenteufel, Mirko Cinchetti, and Martin Aeschlimann

Resonances in a dilute gas of magnons and metamagnetism of isotropic frustrated ferromagnetic spin chains *(11 pages)* 224409
M. Arlego, F. Heidrich-Meisner, A. Honecker, G. Rossini, and T. Vekua

Order by disorder and phase transitions in a highly frustrated spin model on the triangular lattice *(15 pages)* 224410
A. Honecker, D. C. Cabra, H.-U. Everts, P. Pujol, and F. Stauffer

Thermodynamics and phase transitions for the Heisenberg model on the pinwheel distorted kagome lattice *(6 pages)* 224411
Ehsan Khatami, Rajiv R. P. Singh, and Marcos Rigol

First-principles calculation of the nonadiabatic spin transfer torque in Ni and Fe *(8 pages)* 224412
Keith Gilmore, Ion Garate, Allan H. MacDonald, and M. D. Stiles

Thickness-dependent magnetic structure of ultrathin Fe/Ir(001) films: From spin-spiral states toward ferromagnetic order *(9 pages)* 224413
A. Deák, L. Szunyogh, and B. Ujfalussy

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 84, NUMBER 22** **DECEMBER 2011-1(II)**

Development of magnetic order in the TbNi(Al,In) series and magnetocrystalline anisotropy in TbTX compounds *(9 pages)* 224414
M. Klicpera, P. Javorský, and I. Puente Orench

Muon spin relaxation and susceptibility measurements of an itinerant-electron system $Sr_{1-x}Ca_xRuO_3$: Quantum evolution from ferromagnet to paramagnet *(12 pages)* 224415
I. M. Gat-Malureanu, J. P. Carlo, T. Goko, A. Fukaya, T. Ito, P. P. Kyriakou, M. I. Larkin, G. M. Luke, P. L. Russo, A. T. Savici, C. R. Wiebe, K. Yoshimura, and Y. J. Uemura

Electronic, structural, and magnetic properties of the half-metallic ferromagnetic quaternary Heusler compounds CoFeMnZ (Z = Al, Ga, Si, Ge) *(10 pages)* 224416
Vajiheh Alijani, Siham Ouardi, Gerhard H. Fecher, Jürgen Winterlik, S. Shahab Naghavi, Xeniya Kozina, Gregory Stryganyuk, Claudia Felser, Eiji Ikenaga, Yoshiyuki Yamashita, Shigenori Ueda, and Keisuke Kobayashi

Magnetic hysteresis scaling behavior in terbium and holmium *(6 pages)* 224418
Satoru Kobayashi

Zero- and finite-temperature mean field study of magnetic field induced electric polarization in $Ba_2CoGe_2O_7$: Effect of the antiferroelectric coupling *(8 pages)* 224419
Judit Romhányi, Miklós Lajkó, and Karlo Penc

Spin-ice phase in a modified XY model *(7 pages)* 224420
M. Dian and R. Hlubina

Calculation of coercivity of magnetic nanostructures at finite temperatures *(6 pages)* 224421
D. Suess, L. Breth, J. Lee, M. Fuger, C. Vogler, F. Bruckner, B. Bergmair, T. Huber, J. Fidler, and T. Schrefl

Temperature evolution of the magnetic structure of $TbMn_2O_5$ *(7 pages)* 224422
C. Wilkinson, P. J. Brown, and T. Chatterji

Identification and selection rules of the spin-wave eigenmodes in a normally magnetized nanopillar *(23 pages)* . . . 224423
V. V. Naletov, G. de Loubens, G. Albuquerque, S. Borlenghi, V. Cros, G. Faini, J. Grollier, H. Hurdequint, N. Locatelli, B. Pigeau, A. N. Slavin, V. S. Tiberkevich, C. Ulysse, T. Valet, and O. Klein

Fully spin-dependent transport of triangular graphene flakes *(7 pages)* 224424
Tomoya Ono, Tadashi Ota, and Yoshiyuki Egami

Spin-wave excitations of domain walls in bubble-state magnetic nanoelements *(7 pages)* 224425
N. Vukadinovic and F. Boust

Spin correlations in the extended kagome system $YBaCo_3FeO_7$ *(11 pages)* 224426
Martin Valldor, Raphaël P. Hermann, Joachim Wuttke, Michaela Zamponi, and Werner Schweika

Evidence of large nonlinear magnetic effects in the paramagnetic phase of $GaFeO_3$ *(6 pages)* 224427
Gisèle Gruener, Francesco Vitucci, Paolo Calvani, and Jean-Claude Soret

Heisenberg antiferromagnet on the kagome lattice with arbitrary spin: A higher-order coupled cluster treatment *(7 pages)* 224428
O. Götze, D. J. J. Farnell, R. F. Bishop, P. H. Y. Li, and J. Richter

Predicting the spin-lattice order of frustrated systems from first principles *(5 pages)* 224429
H. J. Xiang, E. J. Kan, Su-Huai Wei, M.-H. Whangbo, and X. G. Gong

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 84, NUMBER 22** **DECEMBER 2011-1(II)**

Investigation of the magnetocaloric effect in double distorted perovskites $Ca(Cu_{3-x}Mn_x)Mn_4O_{12}$ ($1 \leqslant x \leqslant 2$): From standard ferrimagnetism to glassy ferrimagnetism *(9 pages)* 224430
Q. Zhang, Y. Bréard, F. Guillou, and V. Hardy

Anisotropic planar Heisenberg model of the quantum heterobimetallic zigzag chains with bridged Re^{IV}-Cu^{II} magnetic complexes *(10 pages)* 224431
P. Sobczak, A. Barasiński, G. Kamieniarz, and A. Drzewiński

Spin-flip scattering and dimensional effect on transport of charge and spin across metal/ferromagnet material interfaces *(12 pages)* 224432
K. Pasanai and P. Pairor

Dephasing in ferromagnetic nanowires: Role of spin waves *(11 pages)* 224433
J. Danon and P. W. Brouwer

Monte Carlo study of partitioning mechanisms in mixed-spin Ising systems *(5 pages)* 224434
M. Charilaou, K. K. Sahu, A. U. Gehring, and J. F. Löffler

General quantum fidelity susceptibilities for the J_1-J_2 chain *(6 pages)* 224435
Mischa Thesberg and Erik S. Sørensen

Quantum magnetoelectric effect in the molecular crystal Dy_3 *(9 pages)* 224436
D. I. Plokhov, A. I. Popov, and A. K. Zvezdin

Ab initio study of the intrinsic exchange bias at the $SrRuO_3/SrMnO_3$ interface *(6 pages)* 224437
Shuai Dong, Qinfang Zhang, Seiji Yunoki, J.-M. Liu, and Elbio Dagotto

Superfluidity and superconductivity

Propagation of thermal excitations in a cluster of vortices in superfluid ^{3}He-B *(6 pages)* 224501
J. J. Hosio, V. B. Eltsov, R. de Graaf, M. Krusius, J. Mäkinen, and D. Schmoranzer

NMR studies of pseudogap and electronic inhomogeneity in $Bi_2Sr_2CaCu_2O_{8+\delta}$ *(8 pages)* 224502
J. Crocker, A. P. Dioguardi, N. apRoberts-Warren, A. C. Shockley, H.-J. Grafe, Z. Xu, J. Wen, G. Gu, and N. J. Curro

Exact expectation values within Richardson's approach for the pairing Hamiltonian in a macroscopic system *(11 pages)* 224503
G. Gorohovsky and E. Bettelheim

Fermi surfaces of iron pnictide high-T_c superconductors from the limit of local magnetic moments *(6 pages)* 224504
J. P. Rodriguez, M. A. N. Araujo, and P. D. Sacramento

Evolution of symmetry and structure of the gap in iron-based superconductors with doping and interactions *(22 pages)* 224505
S. Maiti, M. M. Korshunov, T. A. Maier, P. J. Hirschfeld, and A. V. Chubukov

Revised phase diagram for the $FeTe_{1-x}Se_x$ system with fewer excess Fe atoms *(6 pages)* 224506
Chiheng Dong, Hangdong Wang, Zujuan Li, Jian Chen, H. Q. Yuan, and Minghu Fang

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 84, NUMBER 22** **DECEMBER 2011-1(II)**

Quantum oscillations of the superconductor $LaRu_2P_2$: Comparable mass enhancement $\lambda \approx 1$ in Ru and Fe phosphides *(5 pages)* 224507
Philip J. W. Moll, Jakob Kanter, Ross D. McDonald, Fedor Balakirev, Peter Blaha, Karlheinz Schwarz, Zbigniew Bukowski, Nikolai D. Zhigadlo, Sergiy Katrych, Kurt Mattenberger, Janusz Karpinski, and Bertram Batlogg

Magnetic order in the pseudogap phase of $HgBa_2CuO_{4+\delta}$ studied by spin-polarized neutron diffraction *(8 pages)* 224508
Yuan Li, V. Balédent, N. Barišić, Y. C. Cho, Y. Sidis, G. Yu, X. Zhao, P. Bourges, and M. Greven

Theory of mixed-state effect on NMR relaxation measurements in iron pnictide superconductors *(5 pages)* 224509
Yi Gao, Jian-Xin Zhu, C. S. Ting, and Wu-Pei Su

Detecting Majorana bound states by nanomechanics *(6 pages)* 224510
Stefan Walter, Thomas L. Schmidt, Kjetil Børkje, and Björn Trauzettel

Flux avalanches triggered by microwave depinning of magnetic vortices in Pb superconducting films *(5 pages)* 224511
A. A. Awad, F. G. Aliev, G. W. Ataklti, A. Silhanek, V. V. Moshchalkov, Y. M. Galperin, and V. Vinokur

Surface and waveguide Josephson plasma waves in slabs of layered superconductors *(8 pages)* 224512
T. M. Slipchenko, D. V. Kadygrob, D. Bogdanis, V. A. Yampol'skii, and A. A. Krokhin

Pressure dependence of the low-temperature crystal structure and phase transition behavior of CaFeAsF and SrFeAsF: A synchrotron x-ray diffraction study *(12 pages)* 224513
S. K. Mishra, R. Mittal, S. L. Chaplot, S. V. Ovsyannikov, D. M. Trots, L. Dubrovinsky, Y. Su, Th. Brueckel, S. Matsuishi, H. Hosono, and G. Garbarino

Anisotropy of the irreversibility field for Zr-doped (Y,Gd)$Ba_2Cu_3O_{7-x}$ thin films up to 45 T *(8 pages)* 224514
C. Tarantini, J. Jaroszynski, F. Kametani, Y. L. Zuev, A. Gurevich, Y. Chen, V. Selvamanickam, D. C. Larbalestier, and D. K. Christen

Stability of nonequilibrium polariton superflow in the presence of a cylindrical defect *(5 pages)* 224515
Michiel Wouters

Noise theory of dc nano-SQUIDs based on Dayem nanobridges *(7 pages)* 224516
C. Granata, A. Vettoliere, M. Russo, and B. Ruggiero

Surface impedance of superconductors with weak magnetic impurities *(13 pages)* 224517
Ya. V. Fominov, M. Houzet, and L. I. Glazman

Superconductivity in Nb_4MSi (M=Ni, Co, and Fe) with a quasi-two-dimensional Nb network *(6 pages)* 224518
Gihun Ryu, Sung Wng Kim, Satoru Matsuishi, Hitoshi Kawaji, and Hideo Hosono

Thermal fluctuations and flux-tunable barrier in proximity Josephson junctions *(9 pages)* 224519
Jian Wei(危健), P. Cadden-Zimansky, V. Chandrasekhar, and P. Virtanen

Unconventional Mott transition in $K_xFe_{2-y}Se_2$ *(6 pages)* 224520
L. Craco, M. S. Laad, and S. Leoni

Proximity-induced superconductivity in topological Bi_2Te_2Se and Bi_2Se_3 films: Robust zero-energy bound state possibly due to Majorana fermions *(7 pages)* 224521
G. Koren, T. Kirzhner, E. Lahoud, K. B. Chashka, and A. Kanigel

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 84, NUMBER 22** **DECEMBER 2011-1(II)**

ERRATA

Erratum: Two-dimensional spin-$\frac{1}{2}$ rectangular Heisenberg antiferromagnets: Simulation and experiment
[Phys. Rev. B **84**, 104442 (2011)] *(1 page)*. . . . . 229901(E)
B. C. Keith, C. P. Landee, T. Valleau, M. M. Turnbull, and N. Harrison

Erratum: Acoustic Faraday effect and the circular magnetic dichroism effect in single molecule magnets
[Phys. Rev. B **83**, 014405 (2011)] *(1 page)*. . . . . 229902(E)
I. D. Tokman, V. I. Pozdnjakova, and A. I. Beludanova