

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 87, NUMBER 17

MAY 2013-1(I)

Erratum: Origin of piezoelectric response under a biased scanning probe microscopy tip across a 180° ferroelectric domain wall [Phys. Rev. B 86 , 134115 (2012)] (<i>1 page</i>)	179904(E)
Shiming Lei, Eugene A. Eliseev, Anna N. Morozovska, Ryan C. Haislmaier, Tom T. A. Lummen, W. Cao, Sergei V. Kalinin, and Venkatraman Gopalan	
Erratum: Electron-phonon coupling and superconductivity in arsenic under pressure [Phys. Rev. B 86 , 094515 (2012)] (<i>1 page</i>)	179905(E)
Kevin T. Chan, Brad D. Malone, and Marvin L. Cohen	
Erratum: Molecular oxygen tetramer (O ₂) ₄ : Intermolecular interactions and implications for the ϵ solid phase [Phys. Rev. B 84 , 092105 (2011)] (<i>1 page</i>)	179906(E)
Massimiliano Bartolomei, Estela Carmona-Novillo, Marta I. Hernández, Jesús Pérez-Ríos, José Campos-Martínez, and Ramón Hernández-Lamonedá	

CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 87, NUMBER 17

MAY 2013-1(I)

Role of in-plane and out-of-plane dilution in CeFeAsO: Charge doping versus disorder (8 pages)	174519
G. Prando, O. Vakaliuk, S. Sanna, G. Lamura, T. Shiroka, P. Bonfà, P. Carretta, R. De Renzi, H.-H. Klauss, C. G. F. Blum, S. Wurmehl, C. Hess, and B. Büchner	
Change of electronic state and crystal structure by postannealing in superconducting $\text{SrFe}_2(\text{As}_{0.65}\text{P}_{0.35})_2$ (4 pages)	174520
T. Kobayashi, S. Miyasaka, S. Tajima, T. Nakano, Y. Nozue, N. Chikumoto, H. Nakao, R. Kumai, and Y. Murakami	
Frequency-dependent admittance of a short superconducting weak link (10 pages)	174521
F. Kos, S. E. Nigg, and L. I. Glazman	
Spectroscopy of a Cooper-pair box coupled to a two-level system via charge and critical current (8 pages)	174522
V. Zaretsky, B. Suri, S. Novikov, F. C. Wellstood, and B. S. Palmer	
Effective interactions and fluctuation effects in spin-singlet superfluids (22 pages)	174523
Andreas Eberlein and Walter Metzner	
Growth, characterization, vortex pinning, and vortex flow properties of single crystals of the iron chalcogenide superconductor $\text{FeCr}_{0.02}\text{Se}$ (9 pages)	174524
Anil K. Yadav, Ajay D. Thakur, and C. V. Tomy	
Normal state bottleneck and nematic fluctuations from femtosecond quasiparticle relaxation dynamics in $\text{Sm}(\text{Fe},\text{Co})\text{AsO}$ (6 pages)	174525
T. Mertelj, L. Stojchevska, N. D. Zhigadlo, J. Karpinski, and D. Mihailovic	
Universal response curve for nanowire superconducting single-photon detectors (7 pages)	174526
J. J. Renema, G. Frucci, Z. Zhou, F. Mattioli, A. Gaggero, R. Leoni, M. J. A. de Dood, A. Fiore, and M. P. van Exter	
Interaction of itinerant electrons and spin fluctuations in electron-doped cuprates (9 pages)	174527
Seung Ryong Park, Takao Morinari, Dong Joon Song, Choon Shik Leem, Chul Kim, Sung Kyun Choi, Kyujin Choi, Jae Hoon Kim, Felix Schmitt, Sung Kwan Mo, Dong Hui Lu, Zhi-Xun Shen, Hiroshi Eisaki, Takami Tohyama, Jung Hoon Han, and Changyoung Kim	
Understanding the reentrant superconducting phase diagram of the iron pnictide $\text{Ca}_4\text{Al}_2\text{O}_6\text{Fe}_2(\text{As}_{1-x}\text{P}_x)_2$: First-principles calculations (9 pages)	174528
Hidetomo Usui, Katsuhiro Suzuki, Kazuhiko Kuroki, Nao Takeshita, Parasharam Maruti Shirage, Hiroshi Eisaki, and Akira Iyo	

ERRATA

Retraction: <i>s</i> -wave superconductivity in barium-doped phenanthrene as revealed by specific-heat measurements [Phys. Rev. B 85 , 180511(R) (2012)] (1 page)	179901(E)
Jianjun Ying, Xiangfeng Wang, Yajun Yan, Ziji Xiang, Xigang Luo, Zhe Sun, and Xianhui Chen	
Retraction: Bulk superconductivity and fully gapped superconducting state in Ba-doped phenanthrene [Phys. Rev. B 85 , 214520 (2012)] (2 pages)	179902(E)
Yuichi Kasahara, Yuki Takeuchi, and Yoshihiro Iwasa	
Publisher's Note: Magnetic structure of individual flux vortices in superconducting MgB_2 derived using transmission electron microscopy [Phys. Rev. B 87 , 144515 (2013)] (1 page)	179903(E)
J. C. Loudon, C. J. Howell, N. D. Zhigadlo, J. Karpinski, and P. A. Midgley	

(Continued)

In-plane uniaxial stress effects on the structural and electronic properties of BaFe_2As_2 and CaFe_2As_2 (9 pages) Milan Tomić, Harald O. Jeschke, Rafael M. Fernandes, and Roser Valentí	174503
Quantum phases and phase transitions of frustrated hard-core bosons on a triangular ladder (9 pages) Tapan Mishra, Ramesh V. Pai, Subroto Mukerjee, and Arun Paramekanti	174504
Structural transitions in a doped lanthanum cuprate (5 pages) S.-H. Baek, P. C. Hammel, M. Hücker, B. Büchner, U. Ammerahl, A. Revcolevschi, and B. J. Suh	174505
Relative phase and Josephson dynamics between weakly coupled Richardson models (16 pages) Francesco Buccheri and Andrea Trombettoni	174506
Normal-state spin dynamics in the iron-pnictide superconductors $\text{BaFe}_2(\text{As}_{1-x}\text{P}_x)_2$ and $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ probed with NMR measurements (10 pages) Y. Nakai, T. Iye, S. Kitagawa, K. Ishida, S. Kasahara, T. Shibauchi, Y. Matsuda, H. Ikeda, and T. Terashima	174507
Velocity distributions of tracer particles in thermal counterflow in superfluid ^4He (6 pages) Yoshikazu Minoda, Makoto Tsubota, Yuri A. Sergeev, Carlo F. Barenghi, and W. F. Vinen	174508
Role of crystal anisotropy on the vortex state in the Fulde-Ferrell-Larkin-Ovchinnikov (FFLO) phase (9 pages) Vu Hung Dao, Dmitry Denisov, Alexandre Buzdin, and Jean-Pascal Brison	174509
Observation of superconductivity and anomalous electrical resistivity in single-crystal Ir_3Te_8 (6 pages) L. Li, T. F. Qi, L. S. Lin, X. X. Wu, X. T. Zhang, K. Butrouna, V. S. Cao, Y. H. Zhang, Jiangping Hu, S. J. Yuan, P. Schlottmann, L. E. De Long, and G. Cao	174510
Superconductivity of disordered Dirac fermions (18 pages) Rahul Nandkishore, Joseph Maciejko, David A. Huse, and S. L. Sondhi	174511
Superconductivity induced by electron doping in $\text{La}_{1-x}\text{M}_x\text{OBiS}_2$ ($M = \text{Ti, Zr, Hf, Th}$) (8 pages) D. Yazici, K. Huang, B. D. White, I. Jeon, V. W. Burnett, A. J. Friedman, I. K. Lum, M. Nallaiyan, S. Spagna, and M. B. Maple	174512
Quantum phase slips in Josephson junction rings (18 pages) G. Rastelli, I. M. Pop, and F. W. J. Hekking	174513
Field-angle-resolved anisotropy in superconducting CeCoIn_5 using realistic Fermi surfaces (11 pages) Tanmoy Das, A. B. Vorontsov, I. Vekhter, and Matthias J. Graf	174514
Short-range magnetic order and effective suppression of superconductivity by manganese doping in $\text{LaFe}_{1-x}\text{Mn}_x\text{AsO}_{1-y}\text{F}_y$ (8 pages) Rainer Frankovsky, Hubertus Luetkens, Frank Tambornino, Alexey Marchuk, Gwendolyne Pascua, Alex Amato, Hans-Henning Klauss, and Dirk Johrendt	174515
Dynamics of resistive state in thin superconducting channels (7 pages) V. V. Baranov, A. G. Balanov, and V. V. Kabanov	174516
Spin pairing and penetration depth measurements from nuclear magnetic resonance in $\text{NaFe}_{0.975}\text{Co}_{0.025}\text{As}$ (5 pages) Sangwon Oh, A. M. Mounce, Jeongseop A. Lee, W. P. Halperin, C. L. Zhang, S. Carr, and Pengcheng Dai	174517
Magnetochiral Kerr effect with application to the cuprates (5 pages) Vivek Aji, Yan He, and C. M. Varma	174518

(Continued)

Topological chiral magnonic edge mode in a magnonic crystal (<i>11 pages</i>)	174427
Ryuichi Shindou, Ryo Matsumoto, Shuichi Murakami, and Jun-ichiro Ohe	
Landau theory of the magnetic phase diagram of monoclinic multiferroics: Application to MnWO_4 and CuO (<i>7 pages</i>)	174428
G. Quirion and M. L. Plumer	
Static and dynamic magnetic properties of densely packed magnetic nanowire arrays (<i>19 pages</i>)	174429
O. Dmytriiev, U. A. S. Al-Jarah, P. Gangmei, V. V. Kruglyak, R. J. Hicken, B. K. Mahato, B. Rana, M. Agrawal, A. Barman, M. Mátéfi-Tempfli, L. Piraux, and S. Mátéfi-Tempfli	
Direct Brillouin light scattering observation of dark spin-wave envelope solitons in magnetic films (<i>5 pages</i>)	174430
César L. Ordóñez-Romero, Mikhail A. Cherkasskii, Naser Qureshi, Boris A. Kalinikos, and Carl E. Patton	
Dynamics at finite temperatures of single-domain particles driven by rotating magnetic fields (<i>7 pages</i>)	174431
K. D. Usadel	
Magnetodynamical response of large-area close-packed arrays of circular dots fabricated by nanosphere lithography (<i>19 pages</i>)	174432
E. K. Semenova, F. Montoncello, S. Tacchi, G. Dürr, E. Sirotkin, E. Ahmad, M. Madami, G. Gubbiotti, S. Neusser, D. Grundler, F. Y. Ogrin, R. J. Hicken, V. V. Kruglyak, D. V. Berkov, N. L. Gorn, and L. Giovannini	
Quantum approach of mesoscopic magnet dynamics with spin transfer torque (<i>6 pages</i>)	174433
Yong Wang and L. J. Sham	
Excited states of quasi-one-dimensional hexagonal quantum antiferromagnets (<i>8 pages</i>)	174434
M. Merdan and Y. Xian	
Fluorine-induced local magnetic moment in graphene: A hybrid DFT study (<i>5 pages</i>)	174435
Hyun-Jung Kim and Jun-Hyung Cho	
Low-temperature spin excitations in frustrated ZnCr_2O_4 probed by high-field thermal conductivity (<i>4 pages</i>)	174436
H. D. Zhou, Z. Y. Zhao, X. F. Sun, M. Nieto Suarez, B. Rivas-Murias, V. Tsurkan, J. Deisenhofer, V. S. Zapf, and F. Rivadulla	
Measurement of the magneto-optical response of Fe and CrO_2 epitaxial films by pump-probe spectroscopy: Evidence for spin-charge separation (<i>5 pages</i>)	174437
E. Carpenne, F. Boschini, H. Hedayat, C. Piovera, C. Dallera, E. Puppini, M. Mansurova, M. Münzenberg, X. Zhang, and A. Gupta	
Monte Carlo simulations of the three-dimensional XY spin glass focusing on chiral and spin order (<i>15 pages</i>) . . .	174438
Tomoyuki Obuchi and Hikaru Kawamura	
Superfluidity and superconductivity	
Chiral Mott insulator with staggered loop currents in the fully frustrated Bose-Hubbard model (<i>13 pages</i>)	174501
Arya Dhar, Tapan Mishra, Maheswar Maji, R. V. Pai, Subroto Mukerjee, and Arun Paramekanti	
 Evidence of multiband behavior in the superconducting alloy $\text{Zr}_{0.96}\text{V}_{0.04}\text{B}_2$ (<i>6 pages</i>)	174502
S. T. Renosto, H. Consoline, C. A. M. dos Santos, J. Albino Aguiar, Soon-Gil Jung, J. Vanacken, V. V. Moshchalkov, Z. Fisk, and A. J. S. Machado	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 87, NUMBER 17

MAY 2013-1(I)

	Current induced torques and interfacial spin-orbit coupling: Semiclassical modeling (13 pages)	174411
	Paul M. Haney, Hyun-Woo Lee, Kyung-Jin Lee, Aurélien Manchon, and M. D. Stiles	
	Wave functions of bosonic symmetry protected topological phases (8 pages)	174412
	Cenke Xu and T. Senthil	
	Exact Hamiltonians with Rashba and cubic Dresselhaus spin-orbit couplings on a curved surface (12 pages)	174413
	Jian-Yuan Chang, Jihui-Sheng Wu, and Ching-Ray Chang	
	Topological aspects of an exactly solvable spin chain (7 pages)	174414
	Abhinav Saket, S. R. Hassan, and R. Shankar	
	Magnetic properties of the Fe-MgO interface studied by Mössbauer spectroscopy (7 pages)	174415
	J. Balogh, I. Dézsi, Cs. Fetzner, J. Korecki, A. Kozioł-Rachwał, E. Młyńczak, and A. Nakanishi	
	Switching dynamics of doped CoFeB trilayers and a comparison to the quasistatic approximation (17 pages)	174416
	Michael Forrester, Feodor Kusmartsev, and Endre Kovács	
	Comparative measurements of inverse spin Hall effects and magnetoresistance in YIG/Pt and YIG/Ta (8 pages)	174417
	C. Hahn, G. de Loubens, O. Klein, M. Viret, V. V. Naletov, and J. Ben Youssef	
	Landau-Zener dynamics of a nanoresonator containing a tunneling spin (10 pages)	174418
	Michael F. O’Keeffe, Eugene M. Chudnovsky, and Dmitry A. Garanin	
	Increase of magnetic hyperthermia efficiency due to dipolar interactions in low-anisotropy magnetic nanoparticles: Theoretical and experimental results (10 pages)	174419
	B. Mehdaoui, R. P. Tan, A. Meffre, J. Carrey, S. Lachaize, B. Chaudret, and M. Respaud	
	Chirality-dependent magnon lifetime in a compensated half-metallic ferrimagnet (5 pages)	174420
	Mariana M. Odashima, Alberto Marmodoro, Pawel Buczek, Arthur Ernst, and Leonid Sandratskii	
	Juxtaposition of spin freezing and long range order in a series of geometrically frustrated antiferromagnetic gadolinium garnets (9 pages)	174421
	J. A. Quilliam, S. Meng (孟树超), H. A. Craig, L. R. Corruccini, G. Balakrishnan, O. A. Petrenko, A. Gomez, S. W. Kycia, M. J. P. Gingras, and J. B. Kycia	
	Role of boundaries in micromagnetic calculations of magnonic spectra of arrays of magnetic nanoelements (11 pages)	174422
	O. Dmytriiev, V. V. Kruglyak, M. Franchin, H. Fangohr, L. Giovannini, and F. Montoncello	
	Raman scattering in a Heisenberg $S = \frac{1}{2}$ antiferromagnet on the anisotropic triangular lattice (8 pages)	174423
	Natalia B. Perkins, Gia-Wei Chern, and Wolfram Brenig	
	Spinon-phonon interaction in algebraic spin liquids (16 pages)	174424
	Maksym Serbyn and Patrick A. Lee	
	Iron porphyrin molecules on Cu(001): Influence of adlayers and ligands on the magnetic properties (15 pages)	174425
	H. C. Herper, M. Bernien, S. Bhandary, C. F. Hermanns, A. Krüger, J. Miguel, C. Weis, C. Schmitz-Antoniak, B. Krumme, D. Bovenschen, C. Tieg, B. Sanyal, E. Weschke, C. Czekelius, W. Kuch, H. Wende, and O. Eriksson	
	Transport dynamics of superparamagnetic microbeads trapped by mobile magnetic domain walls (9 pages)	174426
	E. Rapoport and G. S. D. Beach	

(Continued)

Hybrid Hartree-Fock density functional study of charged point defects in ferroelectric PbTiO ₃ (12 pages)	174111
Takahiro Shimada, Taku Ueda, Jie Wang, and Takayuki Kitamura	
Relative entropy as model selection tool in cluster expansions (7 pages)	174112
Jesper Kristensen, Ilias Bilionis, and Nicholas Zabaras	
Polymorphic energy ordering of MgO, ZnO, GaN, and MnO within the random phase approximation (5 pages)	174113
Haowei Peng and Stephan Lany	
Dynamics, dynamical systems, lattice effects:	
Thermally isolated Luttinger liquids with noisy Hamiltonians (11 pages)	174301
Luca D'Alessio and Armin Rahmani	
Quasi-adiabatic quantum Monte Carlo algorithm for quantum evolution in imaginary time (13 pages)	174302
Cheng-Wei Liu, Anatoli Polkovnikov, and Anders W. Sandvik	
Elastic metamaterials with inertial locally resonant structures: Application to lensing and localization (6 pages)	174303
D. Bigoni, S. Guenneau, A. B. Movchan, and M. Brun	
Magnetism	
Spin anisotropy in Cu(en)(H ₂ O) ₂ SO ₄ : A quasi-two-dimensional $S = 1/2$ spatially anisotropic triangular-lattice antiferromagnet (8 pages)	174401
R. Tarasenko, A. Orendáčová, E. Čížmár, S. Maňáš, M. Orendáč, I. Potočný, K. Siemensmeyer, S. Zvyagin, J. Wosnitza, and A. Feher	
Chiral spin-wave edge modes in dipolar magnetic thin films (15 pages)	174402
Ryuichi Shindou, Jun-ichiro Ohe, Ryo Matsumoto, Shuichi Murakami, and Eiji Saitoh	
First-principles study of perpendicular magnetic anisotropy in CoFe/MgO and CoFe/Mg ₃ B ₂ O ₆ interfaces (6 pages)	174403
K. H. Khoo, G. Wu, M. H. Jhon, M. Tran, F. Ernult, K. Eason, H. J. Choi, and C. K. Gan	
Effect of nonlinear superparamagnetic response on susceptibility curves for nanoparticle assemblies (9 pages)	174404
F. Tournus, A. Hillion, A. Tamion, and V. Dupuis	
Phase diagram and magnetic excitations of anisotropic spin-one magnets (11 pages)	174405
Zhifeng Zhang, Keola Wierschem, Ian Yap, Yasuyuki Kato, Cristian D. Batista, and Pinaki Sengupta	
Effective spin diffusion in spin-polarized equilibrium and quasiequilibrium Fermi liquids (5 pages)	174406
Hari P. Dahal and Kevin S. Bedell	
Theory of atomistic simulation of spin-transfer torque in nanomagnets (11 pages)	174407
Tiamhock Tay (郑添福) and L. J. Sham	
Topological-charge-driven reversal of ferromagnetic rings via 360° domain-wall formation (8 pages)	174408
A. L. Gonzalez Oyarce, T. Trypiniotis, P. E. Roy, and C. H. W. Barnes	
Spin-transfer torques in helimagnets (5 pages)	174409
Kjetil M. D. Hals and Arne Brataas	
Magnetotransport properties of Fe ₄₈ Mn ₂₄ Ga ₂₈ Heusler alloys (5 pages)	174410
V. V. Khovaylo, T. Otori, K. Endo, X. Xu, R. Kainuma, A. P. Kazakov, V. N. Prudnikov, E. A. Gan'shina, A. I. Novikov, Yu. O. Mikhailovsky, D. E. Mettus, and A. B. Granovsky	

(Continued)

PHYSICAL REVIEW BTM

For editorial and subscription correspondence,
please see inside front cover
(ISSN: 1098-0121)

PERIODICALS

Postmaster send address changes to:

APS Subscription Services
P.O. Box 41
Annapolis Junction, MD 20701

THIRD SERIES, VOLUME 87, NUMBER 17

CONTENTS

MAY 2013-1(I)

EDITORIALS AND ANNOUNCEMENTS

Editorial: Scope and Standards of PRB (2 pages) 170001

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

First-principles study of possible shallow donors in ZnAl_2O_4 spinel (7 pages) 174101

H. Dixit, Nandan Tandon, S. Cottenier, R. Saniz, D. Lamoen, and B. Partoens

Strong magnetic-dielectric-lattice coupling in transition metal hydroxyhalides and ferroelectric response in rhombohedral $\text{Co}_2(\text{OD})_3\text{X}$ ($\text{X} = \text{Cl}, \text{Br}$) (6 pages) 174102

X. G. Zheng, M. Fujihala, S. Kitajima, M. Maki, K. Kato, M. Takata, and C. N. Xu

Interplay between hydrogen and vacancies in $\alpha\text{-Fe}$ (14 pages) 174103

Erin Hayward and Chu-Chun Fu

Shock-compressed graphite to diamond transformation on nanosecond time scales (7 pages) 174104

J. M. Winey and Y. M. Gupta

Hydrogen-helium demixing from first principles: From diamond anvil cells to planetary interiors (4 pages) 174105

Miguel A. Morales, Sebastien Hamel, Kyle Caspersen, and Eric Schwegler

Fundamental constraints on the strength of transition-metal borides: The case of CrB_4 (7 pages) 174106

Bing Li, Hong Sun, Chenpeng Zang, and Changfeng Chen

Theoretical assessment on the possibility of constraining point-defect energetics by pseudo phase transition pressures (13 pages) 174107

Hua Y. Geng, Hong X. Song, and Q. Wu

Lithiation of silicon via lithium Zintl-defect complexes from first principles (4 pages) 174108

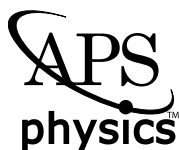
Andrew J. Morris, R. J. Needs, Elodie Salager, C. P. Grey, and Chris J. Pickard

XANES and EXAFS study of the local order in nanocrystalline yttria-stabilized zirconia (10 pages) 174109

O. J. Dura, R. Boada, M. A. López de la Torre, G. Aquilanti, A. Rivera-Calzada, C. Leon, and J. Chaboy

Identification of high-pressure phases III and IV in hydrogen: Simulating Raman spectra using molecular dynamics (8 pages) 174110

Ioan B. Magdău and Graeme J. Ackland



Copyright 2013 by American Physical Society



1098-0121(20130501)87:17;1-L

(Continued)

Selected for a Viewpoint in *Physics*. Please visit <http://physics.aps.org/>.

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).