

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 1N01
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 81, NUMBER 22

CONTENTS

JUNE 2010-1(II)

RAPID COMMUNICATIONS

Structure, structural phase transitions, mechanical properties, defects

- Microscopic mechanism of martensitic stabilization in shape-memory alloys: Atomic-level processes
(4 pages) 220101(R)
Junkai Deng, Xiangdong Ding, Turab Lookman, Tetsuro Suzuki, Kazuhiro Otsuka, Jun Sun,
Avadh Saxena, and Xiaobing Ren
- Stability trends of *MAX* phases from first principles (4 pages) 220102(R)
M. Dahlqvist, B. Alling, and J. Rosén

Inhomogeneous, disordered, and partially ordered systems

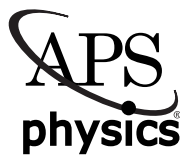
- Relating activation of shear transformation zones to β relaxations in metallic glasses (4 pages) 220201(R)
H. B. Yu, W. H. Wang, H. Y. Bai, Y. Wu, and M. W. Chen
- Intermediate-valence quasicrystal of a Cd-Yb alloy under pressure (4 pages) 220202(R)
Daichi Kawana, Tetsu Watanuki, Akihiko Machida, Takahisa Shobu, Katsutoshi Aoki, and AnPang Tsai

Dynamics, dynamical systems, lattice effects, quantum solids

- Temperature dependence of electron-phonon thermalization and its correlation to ultrafast magnetism
(4 pages) 220301(R)
Xuan Wang, Shouhua Nie, Junjie Li, Richard Clinite, John Edward Clark, and Jianming Cao

Magnetism

- Thermal switching of the magnetization in an iron film on a magnetically active template MnAs/GaAs(001)
(4 pages) 220401(R)
Maurizio Sacchi, Massimiliano Marangolo, Carlo Spezzani, Romain Breitwieser, Horia Popescu,
Renaud Dealaunay, Benjamin Rache Salles, Mahmoud Eddrief, and Victor H. Etgens
- Magnetoelectricity and magnetostriction due to the rare-earth moment in $\text{TmAl}_3(\text{BO}_3)_4$ (4 pages) 220402(R)
R. P. Chaudhury, B. Lorenz, Y. Y. Sun, L. N. Bezmaternykh, V. L. Temerov, and C. W. Chu
- Magnetic superlattice with two-dimensional periodicity as a waveguide for spin waves (4 pages) 220403(R)
Rakesh P. Tiwari and D. Stroud
- Growth and magnetic order of Mn films on $\text{Fe}(001)\text{-}p(1 \times 1)\text{O}$ studied by spin-polarized scanning tunneling
microscopy (4 pages) 220404(R)
Achiri Tange, Chunlei Gao, Wulf Wulfhekkel, and Jürgen Kirschner



Copyright 2010 by The American Physical Society



1098-0121(20100601)81:22;1-6

(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).

Dispersion of magnetic anisotropy in size-selected CoPt clusters (<i>4 pages</i>)	220405(R)
F. Tournus, N. Blanc, A. Tamion, M. Hillenkamp, and V. Dupuis	
Field-induced spin reorientation and giant spin-lattice coupling in EuFe_2As_2 (<i>4 pages</i>)	220406(R)
Y. Xiao, Y. Su, W. Schmidt, K. Schmalzl, C. M. N. Kumar, S. Price, T. Chatterji, R. Mittal, L. J. Chang, S. Nandi, N. Kumar, S. K. Dhar, A. Thamizhavel, and Th. Brueckel	
 Oscillatory interlayer exchange coupling in MgO tunnel junctions with perpendicular magnetic anisotropy (<i>4 pages</i>)	220407(R)
Lavinia E. Nistor, Bernard Rodmacq, Stéphane Auffret, Alain Schuhl, Mairbek Chshiev, and Bernard Dieny	
Dipolar ordering and the shapes of Mn_{12} -acetate crystals (<i>4 pages</i>)	220408(R)
D. A. Garanin	
Role of an interfacial FeO layer in the electric-field-driven switching of magnetocrystalline anisotropy at the Fe/MgO interface (<i>4 pages</i>)	220409(R)
Kohji Nakamura, Toru Akiyama, Tomonori Ito, M. Weinert, and A. J. Freeman	
Superfluidity and superconductivity	
 Line nodes in the energy gap of superconducting $\text{BaFe}_2(\text{As}_{1-x}\text{P}_x)_2$ single crystals as seen via penetration depth and thermal conductivity (<i>4 pages</i>)	220501(R)
K. Hashimoto, M. Yamashita, S. Kasahara, Y. Senshu, N. Nakata, S. Tonegawa, K. Ikada, A. Serafin, A. Carrington, T. Terashima, H. Ikeda, T. Shibauchi, and Y. Matsuda	
Coupling of spin and orbital excitations in the iron-based superconductor $\text{FeSe}_{0.5}\text{Te}_{0.5}$ (<i>4 pages</i>)	220502(R)
S.-H. Lee, Guangyong Xu, W. Ku, J. S. Wen, C. C. Lee, N. Katayama, Z. J. Xu, S. Ji, Z. W. Lin, G. D. Gu, H.-B. Yang, P. D. Johnson, Z.-H. Pan, T. Valla, M. Fujita, T. J. Sato, S. Chang, K. Yamada, and J. M. Tranquada	
Incommensurate itinerant antiferromagnetic excitations and spin resonance in the $\text{FeTe}_{0.6}\text{Se}_{0.4}$ superconductor (<i>4 pages</i>)	220503(R)
D. N. Argyriou, A. Hiess, A. Akbari, I. Eremin, M. M. Korshunov, Jin Hu, Bin Qian, Zhiqiang Mao, Yiming Qiu, Collin Broholm, and W. Bao	
Topological odd-parity superconductors (<i>4 pages</i>)	220504(R)
Masatoshi Sato	
Possible evidence of a two-gap structure for the Cu_xTiSe_2 superconductor (<i>4 pages</i>)	220505(R)
Moran Zaberchik, Khanan Chashka, Larisa Patlgan, Ariel Maniv, Chris Baines, Philip King, and Amit Kanigel	
Possible origin of the reduced ordered magnetic moment in iron pnictides: A dynamical mean-field theory study (<i>4 pages</i>)	220506(R)
Hunpyo Lee, Yu-Zhong Zhang, Harald O. Jeschke, and Roser Valentí	
Critical behavior of steady quantum turbulence generated by oscillating structures in superfluid ^4He (<i>4 pages</i>)	220507(R)
H. Yano, Y. Nago, R. Goto, K. Obara, O. Ishikawa, and T. Hata	

(Continued)

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

-  Effects of volume mismatch and electronic structure on the decomposition of ScAlN and TiAlN solid solutions (7 pages) 224101
 Carina Höglund, Björn Alling, Jens Birch, Manfred Beckers, Per O. Å. Persson, Carsten Baehtz, Zsolt Czigány, Jens Jensen, and Lars Hultman
- Phase diagram of $\text{Ti}_{50-x}\text{Ni}_{50+x}$: Crossover from martensite to strain glass (9 pages) 224102
 Zhen Zhang, Yu Wang, Dong Wang, Yumei Zhou, Kazuhiro Otsuka, and Xiaobing Ren
- Compressive pseudoelastic behavior in copper nanowires (9 pages) 224103
 Sangjin Lee, Byeongyong Lee, and Maenghyo Cho
- Genetic algorithm based approach to investigate doped metal oxide materials: Application to lanthanide-doped ceria (11 pages) 224104
 James Hooper, Arif Ismail, Javier B. Giorgi, and Tom K. Woo
- Coherent x-ray imaging of defects in colloidal crystals (6 pages) 224105
 J. Gulden, O. M. Yefanov, A. P. Mancuso, V. V. Abramova, J. Hilhorst, D. Byelov, I. Snigireva, A. Snigirev, A. V. Petukhov, and I. A. Vartanyants
- Growth mechanism of the Si $\langle 110 \rangle$ faceted dendrite (5 pages) 224106
 K. Fujiwara, H. Fukuda, N. Usami, K. Nakajima, and S. Uda
-  Langevin model for real-time Brownian dynamics of interacting nanodefects in irradiated metals (15 pages) 224107
 S. L. Dudarev, M. R. Gilbert, K. Arakawa, H. Mori, Z. Yao, M. L. Jenkins, and P. M. Derlet
- Crystal growth and melting in NiZr alloy: Linking phase-field modeling to molecular dynamics simulations (14 pages) 224108
 M. Guerdane, F. Wendler, D. Danilov, H. Teichler, and B. Nestler
- Native and hydrogen-containing point defects in Mg_3N_2 : A density functional theory study (10 pages) 224109
 Björn Lange, Christoph Freysoldt, and Jörg Neugebauer
- Elastic properties of Pu metal and Pu-Ga alloys (9 pages) 224110
 Per Söderlind, Alex Landa, J. E. Klepeis, Y. Suzuki, and A. Migliori
- Annealing effects on electrical properties and defects of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ thin films deposited by pulsed laser deposition (9 pages) 224111
 Guochu Deng and Paul Muralt
- Soft-mode behavior and incipient ferroelectricity in $\text{Na}_{1/2}\text{Bi}_{1/2}\text{Cu}_3\text{Ti}_4\text{O}_{12}$ (7 pages) 224112
 Matthew C. Ferrarelli, Dmitry Nuzhnyy, Derek C. Sinclair, and Stanislav Kamba
- Pair potentials for simple metallic systems: Beyond linear response (12 pages) 224113
 J. A. Porter, N. W. Ashcroft, and G. V. Chester
- Self-organization of linear nanochannel networks (9 pages) 224114
 R. K. Annabattula, J. M. Veenstra, Y. F. Mei, O. G. Schmidt, and P. R. Onck
- High-pressure structural phase transitions in CuWO_4 (10 pages) 224115
 J. Ruiz-Fuertes, D. Errandonea, R. Lacomba-Perales, A. Segura, J. González, F. Rodríguez, F. J. Manjón, S. Ray, P. Rodríguez-Hernández, A. Muñoz, Zh. Zhu, and C. Y. Tu

(Continued)

Frenkel-Kontorova models, pinned particle configurations, and Burgers shocks (<i>19 pages</i>)	224116
Muhittin Mungan and Cem Yolcu	
Structural effects of Sc doping on the multiferroic TbMnO ₃ (<i>9 pages</i>)	224117
Vera Cuartero, Javier Blasco, Joaquín García, Gloria Subías, Clemens Ritter, and J. Alberto Rodríguez-Velamazán	
Landau theory of domain wall magnetoelectricity (<i>12 pages</i>)	224118
Maren Daraktchiev, Gustau Catalan, and James F. Scott	
Inhomogeneous, disordered, and partially ordered systems	
Work function calculation of solid solution alloys using the image force model (<i>8 pages</i>)	224201
Jonathan Avner Rothschild and Moshe Eizenberg	
Cluster expansion and the configurational theory of alloys (<i>13 pages</i>)	224202
J. M. Sanchez	
Mg/Ti multilayers: Structural and hydrogen absorption properties (<i>10 pages</i>)	224203
A. Baldi, G. K. Pálsson, M. Gonzalez-Silveira, H. Schreuders, M. Slaman, J. H. Rector, G. Krishnan, B. J. Kooi, G. S. Walker, M. W. Fay, B. Hjörvarsson, R. J. Wijngaarden, B. Dam, and R. Griessen	
Molecular dynamics study of the ordering of carbon in highly supersaturated α -Fe (<i>9 pages</i>)	224204
C. W. Sinclair, M. Perez, R. G. A. Veiga, and A. Weck	
Generalization of the cavity method for adiabatic evolution of Gibbs states (<i>28 pages</i>)	224205
Lenka Zdeborová and Florent Krzakala	
Deuteron nuclear magnetic resonance and dielectric study of host and guest dynamics in KOH-doped tetrahydrofuran clathrate hydrate (<i>10 pages</i>)	224206
H. Nelson, A. Nowaczyk, C. Gainaru, S. Schildmann, B. Geil, and R. Böhmer	
Noise predictions for STM in systems with local electron nematic order (<i>8 pages</i>)	224207
Y. L. Loh, E. W. Carlson, and K. A. Dahmen	
Anderson localization of phonons in dimension $d=1,2,3$: Finite-size properties of the inverse participation ratios of eigenstates (<i>9 pages</i>)	224208
Cécile Monthus and Thomas Garel	
Unified approach to atomic transport phenomena in metallic glasses from the bond deficiency perspective (<i>8 pages</i>)	224209
A. Zhu, G. J. Shiflet, and S. J. Poon	
Dynamics, dynamical systems, lattice effects, quantum solids	
Quench dynamics near a quantum critical point: Application to the sine-Gordon model (<i>21 pages</i>)	224301
C. De Grandi, V. Gritsev, and A. Polkovnikov	
Ferromagnetic spinel CuCr ₂ Se ₄ studied by Raman spectroscopy and lattice dynamics calculations (<i>5 pages</i>)	224302
V. G. Ivanov, M. N. Iliev, Y.-H. A. Wang, and A. Gupta	
Characteristic wave speeds in the surface Brillouin scattering measurement of elastic constants of crystals (<i>10 pages</i>)	224303
A. G. Every, L. M. Kotane, and J. D. Comins	

(Continued)

Absence of phase-dependent noise in time-domain reflectivity studies of impulsively excited phonons (4 pages)	224304
A. Hussain and S. R. Andrews	
Nonadiabatic effects of rattling phonons and $4f$ excitations in $\text{Pr}(\text{Os}_{1-x}\text{Ru}_x)_4\text{Sb}_{12}$ (9 pages)	224305
Peter Thalmeier	
Magnetism	
Intrinsic spin and orbital Hall effects in heavy-fermion systems (9 pages)	224401
T. Tanaka and H. Kontani	
Electronic structure and magnetic properties of hole-carrier-doped $\text{La}_2\text{MnNiO}_6:\text{La}_{2-x}\text{Sr}_x\text{MnNiO}_6$ (6 pages)	224402
Bongjae Kim, Hong Chul Choi, Beom Hyun Kim, and B. I. Min	
Critical behavior of diluted magnetic semiconductors: Apparent violation and eventual restoration of the Harris criterion for all regimes of disorder (12 pages)	224403
D. J. Priour, Jr. and S. Das Sarma	
Entanglement entropy, conformal invariance, and the critical behavior of the anisotropic spin- s Heisenberg chains: DMRG study (7 pages)	224404
J. C. Xavier	
High-resolution neutron scattering study of $\text{Tb}_2\text{Mo}_2\text{O}_7$: A geometrically frustrated spin glass (8 pages)	224405
G. Ehlers, J. E. Greedan, J. R. Stewart, K. C. Rule, P. Fouquet, A. L. Cornelius, C. Adriano, P. G. Pagliuso, Y. Qiu, and J. S. Gardner	
Size effects on the phase coexistence in $\text{MnAs/GaAs}(001)$ ribbons (5 pages)	224406
M. Tortarolo, M. Sirena, J. Milano, L. B. Steren, F. Vidal, B. Rache Salles, V. H. Etgens, M. Eddrief, G. Faini, and L. I. Pietrasanta	
Magnetic phase diagram of a quasi-one-dimensional quantum spin system (5 pages)	224407
A. A. Zvyagin	
Polar catastrophe, electron leakage, and magnetic ordering at the $\text{LaMnO}_3/\text{SrMnO}_3$ interface (8 pages)	224408
B. R. K. Nanda and S. Satpathy	
Magnetic properties of the geometrically frustrated $S=\frac{1}{2}$ antiferromagnets, $\text{La}_2\text{LiMoO}_6$ and Ba_2YMoO_6 , with the B-site ordered double perovskite structure: Evidence for a collective spin-singlet ground state (13 pages)	224409
Tomoko Aharen, John E. Greedan, Craig A. Bridges, Adam A. Aczel, Jose Rodriguez, Greg MacDougall, Graeme M. Luke, Takashi Imai, Vladimir K. Michaelis, Scott Kroeker, Haidong Zhou, Chris R. Wiebe, and Lachlan M. D. Cranswick	
Antiferromagnetic layer thickness dependence of noncollinear uniaxial and unidirectional anisotropies in NiFe/FeMn/CoFe trilayers (6 pages)	224410
Hyeok-Cheol Choi, Chun-Yeol You, Ki-Yeon Kim, Jeong-Soo Lee, Je-Ho Shim, and Dong-Hyun Kim	
Dimensionality crossover and frustrated spin dynamics on a triangular lattice (6 pages)	224411
J. M. Wikberg, M. Dahbi, I. Saadoune, T. Gustafsson, K. Edström, and P. Svedlindh	
Tailoring perpendicular magnetic anisotropy in ultrathin Co/Pt multilayers coupled to NiO (7 pages)	224412
H. Ouyang, Y.-H. Han, S.-C. Lo, C.-H. Su, Y.-R. Shiu, K.-W. Lin, R. D. Desautels, and J. van Lierop	

(Continued)

Absent pinch points and emergent clusters: Further neighbor interactions in the pyrochlore Heisenberg antiferromagnet (<i>11 pages</i>)	224413
P. H. Conlon and J. T. Chalker	
Proposed third long-range order in multiferroics (<i>5 pages</i>)	224414
C. D. Hu	
Collective modes for an array of magnetic dots with perpendicular magnetization (<i>13 pages</i>)	224415
P. V. Bondarenko, A. Yu. Galkin, B. A. Ivanov, and C. E. Zaspel	
Low-temperature spin dynamics in the kagome system $\text{Pr}_3\text{Ga}_5\text{SiO}_{14}$ (<i>10 pages</i>)	224416
L. L. Lumata, T. Besara, P. L. Kuhns, A. P. Reyes, H. D. Zhou, C. R. Wiebe, L. Balicas, Y. J. Jo, J. S. Brooks, Y. Takano, M. J. Case, Y. Qiu, J. R. D. Copley, J. S. Gardner, K. Y. Choi, N. S. Dalal, and M. J. R. Hoch	
Possibility of $S=1$ spin liquids with fermionic spinons on triangular lattices (<i>5 pages</i>)	224417
Zheng-Xin Liu, Yi Zhou, and Tai-Kai Ng	
Current-induced motion and pinning of domain walls in spin-valve nanowires studied by XMCD-PEEM (<i>10 pages</i>)	224418
V. Uhlř, S. Pizzini, N. Rougemaille, J. Novotný, V. Cros, E. Jiménez, G. Faini, L. Heyne, F. Sirotti, C. Tieg, A. Bendounan, F. Maccherozzi, R. Belkhou, J. Grollier, A. Anane, and J. Vogel	
Gradual development of Γ^{5g} antiferromagnetic moment in the giant negative thermal expansion material $\text{Mn}_3\text{Cu}_{1-x}\text{Ge}_x\text{N}$ ($x \sim 0.5$) (<i>8 pages</i>)	224419
K. Kodama, S. Iikubo, K. Takenaka, M. Takigawa, H. Takagi, and S. Shamoto	
Mapping the magnetic phase diagram of the frustrated metamagnet CuFeO_2 (<i>12 pages</i>)	224420
T. T. A. Lummen, C. Strohm, H. Rakoto, and P. H. M. van Loosdrecht	
Electron spin resonance in $S=\frac{1}{2}$ antiferromagnets at high temperature (<i>9 pages</i>)	224421
S. El Shawish, O. Cépas, and S. Miyashita	
Unidirectional behavior of uncompensated Fe orbital moments in exchange-biased Co/FeMn/Cu(001) (<i>6 pages</i>)	224422
D. Schmitz, E. Schierle, N. Darowski, H. Maletta, E. Weschke, and M. Gruyters	
Magnetic clusters in ilmenite-hematite solid solutions (<i>5 pages</i>)	224423
C. Frandsen, B. P. Burton, H. K. Rasmussen, S. A. McEnroe, and S. Mørup	
Universal behavior for magnetic entropy change in magnetocaloric materials: An analysis on the nature of phase transitions (<i>7 pages</i>)	224424
Claudia Marcela Bonilla, Julia Herrero-Albillos, Fernando Bartolomé, Luis Miguel García, María Parra-Borderías, and Victorino Franco	
Magnetization reversal and wall propagation velocity in single-crystalline and polycrystalline Fe wires (<i>5 pages</i>)	224425
Y. Kasatani, A. Yamaguchi, H. Yamamoto, and H. Miyajima	
Structurally driven metamagnetism in MnP and related $Pnma$ compounds (<i>7 pages</i>)	224426
Z. Gercsi and K. G. Sandeman	
Exchange bias anisotropy versus antiferromagnet thickness in uniaxial Cr/Fe bilayers (<i>8 pages</i>)	224427
L. Anghinolfi, F. Bisio, M. Canepa, and L. Mattera	
Transformation of twinned $\text{Ni}_{52.0}\text{Mn}_{24.4}\text{Ga}_{23.6}$ martensite in a rotating magnetic field: Theory and experiment (<i>6 pages</i>)	224428
C. P. Sasso, V. A. L'vov, V. A. Chernenko, J. M. Barandiaran, M. Pasquale, and Y. Kono	

(Continued)

Conductivity of disordered quantum lattice models at infinite temperature: Many-body localization (4 pages)	224429
Timothy C. Berkelbach and David R. Reichman	
Topological quantum phase transition in an $S=2$ spin chain (6 pages)	224430
Jiadong Zang, Hong-Chen Jiang, Zheng-Yu Weng, and Shou-Cheng Zhang	
Magnetism of small Cr clusters: Interplay between structure, magnetic order, and electron correlations (11 pages)	224431
P. Ruiz-Díaz, J. L. Ricardo-Chávez, J. Dorantes-Dávila, and G. M. Pastor	
Spin-torque-induced excitations of in-phase oscillation in an in-plane-magnetized elliptical nanopillar device: A numerical study (10 pages)	224432
Kiwamu Kudo, Tazumi Nagasawa, Hirofumi Suto, Rie Sato, and Koichi Mizushima	
Magnetic phase diagram of the spin- $\frac{1}{2}$ antiferromagnetic zigzag ladder (20 pages)	224433
Toshiya Hikihara, Tsutomu Momoi, Akira Furusaki, and Hikaru Kawamura	
Multiferroicity and hydrogen-bond ordering in $(\text{C}_2\text{H}_5\text{NH}_3)_2\text{CuCl}_4$ featuring dominant ferromagnetic interactions (6 pages)	224434
B. Kundys, A. Lappas, M. Viret, V. Kapustianyk, V. Rudyk, S. Semak, Ch. Simon, and I. Bakaimi	
Dimensionality-driven spin-flop transition in quasi-one-dimensional $\text{PrBa}_2\text{Cu}_4\text{O}_8$ (7 pages)	224435
Xiaofeng Xu, A. Carrington, A. I. Coldea, A. Enayati-Rad, A. Narduzzo, S. Horii, and N. E. Hussey	
Determining the anisotropic exchange coupling of CrO_2 via first-principles density functional theory calculations (9 pages)	224436
H. Sims, S. J. Oset, W. H. Butler, James M. MacLaren, and Martijn Marsman	
Tunneling and charging effects in discontinuous superparamagnetic $\text{Ni}_{81}\text{Fe}_{19}/\text{Al}_2\text{O}_3$ multilayers (9 pages)	224437
R. Bručas, M. Hanson, P. Apell, P. Nordblad, R. Gunnarsson, and B. Hjörvarsson	
Spin dynamics in the $S=\frac{1}{2}$ antiferromagnetic chain compounds $\delta\text{-(EDT-TTF-CONMe}_2)_2\text{X}$ ($\text{X}=\text{AsF}_6, \text{Br}$): A multifrequency electron spin resonance study (6 pages)	224438
Bálint Náfrádi, Areta Olariu, László Forró, Cécile Mézière, Patrick Batail, and András Jánossy	
Shape and strain-induced magnetization reorientation and magnetic anisotropy in thin film Ti/CoCrPt/Ti lines and rings (11 pages)	224439
D. Navas, C. Nam, D. Velazquez, and C. A. Ross	
Superfluidity and superconductivity	
Pauli-limited superconductivity with classical magnetic fluctuations (16 pages)	224501
Robert Beaird, Anton B. Vorontsov, and Ilya Vekhter	
Phases of lattice hard-core bosons in a periodic superlattice (5 pages)	224502
Long Dang and Massimo Boninsegni	
Hole and electron contributions to the transport properties of $\text{Ba}(\text{Fe}_{1-x}\text{Ru}_x)_2\text{As}_2$ single crystals (7 pages)	224503
F. Rullier-Albenque, D. Colson, A. Forget, P. Thuéry, and S. Poissonnet	
Quasiparticle relaxation dynamics in spin-density-wave and superconducting $\text{SmFeAsO}_{1-x}\text{F}_x$ single crystals (9 pages)	224504
T. Mertelj, P. Kusar, V. V. Kabanov, L. Stojchevska, N. D. Zhigadlo, S. Katrych, Z. Bukowski, J. Karpinski, S. Weyeneth, and D. Mihailovic	

(Continued)

 Superconductivity in the repulsive Hubbard model: An asymptotically exact weak-coupling solution (17 pages)	224505
S. Raghu, S. A. Kivelson, and D. J. Scalapino	
Theory of the time-resolved spectral function of high-temperature superconductors with bosonic modes (5 pages)	224506
Jianmin Tao and Jian-Xin Zhu	
Goldstone modes in Larkin-Ovchinnikov-Fulde-Ferrell superconductors (8 pages)	224507
K. V. Samokhin	
Pressure-induced superconductivity and Mott transition in spin-liquid κ -(ET) ₂ Cu ₂ (CN) ₃ probed by ¹³ C NMR (5 pages)	224508
Y. Shimizu, H. Kasahara, T. Furuta, K. Miyagawa, K. Kanoda, M. Maesato, and G. Saito	
Pinning effects in ceramic SmO _{1-x} F _x FeAs as revealed by microwave absorption (9 pages)	224509
Nadezda Yu. Panarina, Yurii I. Talanov, Tatyana S. Shaposhnikova, Niyaz R. Beysengulov, Evgenia Vavilova, Günter Behr, Agnieszka Kondrat, Christian Hess, Norman Leps, Sabine Wurmehl, Rüdiger Klingeler, Vladislav Kataev, and Bernd Büchner	
Zero-bias conductance vanishing induced by the same-spin-band Andreev reflection in half-metallic ferromagnet/superconductor contacts (4 pages)	224510
C. D. Feng, Zhi Ming Zheng, R. Shen, Baigeng Wang, and D. Y. Xing	
Appearance of pressure-induced superconductivity in BaFe ₂ As ₂ under hydrostatic conditions and its extremely high sensitivity to uniaxial stress (5 pages)	224511
Takehiro Yamazaki, Nao Takeshita, Ryosuke Kobayashi, Hideto Fukazawa, Yoh Kohori, Kunihiro Kihou, Chul-Ho Lee, Hijiri Kito, Akira Iyo, and Hiroshi Eisaki	
Phase separation and pairing regimes in the one-dimensional asymmetric Hubbard model (13 pages)	224512
L. Barbiero, M. Casadei, M. Dalmonte, C. Degli Esposti Boschi, E. Ercolessi, and F. Ortolani	
 Synthesis, structure, and properties of tetragonal Sr ₂ M ₃ As ₂ O ₂ (M ₃ =Mn ₃ , Mn ₂ Cu, and MnZn ₂) compounds containing alternating CuO ₂ -type and FeAs-type layers (16 pages)	224513
R. Nath, V. O. Garlea, A. I. Goldman, and D. C. Johnston	
Enhancement of the in-field J_c of MgB ₂ via SiCl ₄ doping (6 pages)	224514
Xiao-Lin Wang, S. X. Dou, M. S. A. Hossain, Z. X. Cheng, X. Z. Liao, S. R. Ghorbani, Q. W. Yao, J. H. Kim, and T. Silver	
Quantizing Majorana fermions in a superconductor (10 pages)	224515
C. Chamon, R. Jackiw, Y. Nishida, S.-Y. Pi, and L. Santos	
Commensurability, jamming, and dynamics for vortices in funnel geometries (14 pages)	224516
C. J. Olson Reichhardt and C. Reichhardt	
Surface losses and self-pumping effects in a long Josephson junction: A semianalytical approach (7 pages)	224517
Marek Jaworski	
Counterintuitive consequence of heating in strongly-driven intrinsic junctions of Bi ₂ Sr ₂ CaCu ₂ O _{8+δ} mesas (10 pages)	224518
C. Kurter, L. Ozyuzer, T. Proslir, J. F. Zasadzinski, D. G. Hinks, and K. E. Gray	

(Continued)

Multiple pre-edge structures in Cu K -edge x-ray absorption spectra of high- T_c cuprates revealed by high-resolution x-ray absorption spectroscopy (5 pages)	224519
C. Gougoussis, J.-P. Rueff, M. Calandra, M. d'Astuto, I. Jarrige, H. Ishii, A. Shukla, I. Yamada, M. Azuma, and M. Takano	
Anisotropic superconducting properties of single-crystalline $\text{FeSe}_{0.5}\text{Te}_{0.5}$ (10 pages)	224520
M. Bendele, S. Weyeneth, R. Puzniak, A. Maisuradze, E. Pomjakushina, K. Conder, V. Pomjakushin, H. Luetkens, S. Katrych, A. Wisniewski, R. Khasanov, and H. Keller	
Electrical conductivity beyond a linear response in layered superconductors under a magnetic field (8 pages)	224521
Bui Duc Tinh, Dingping Li, and Baruch Rosenstein	

ERRATA

Erratum: Spin dynamics of the antiferromagnetic spin- $\frac{1}{2}$ chain at finite magnetic fields and intermediate temperatures [Phys. Rev. B 79 , 094409 (2009)] (1 page)	229901(E)
S. Grossjohann and W. Brenig	
Erratum: Effects of cobalt doping and three-dimensionality in BaFe_2As_2 [Phys. Rev. B 80 , 104511 (2009)] (1 page)	229902(E)
A. F. Kemper, C. Cao, P. J. Hirschfeld, and H.-P. Cheng	
Publisher's Note: Halperin-Saslow modes as the origin of the low-temperature anomaly in NiGa_2S_4 [Phys. Rev. B 79 , 140402(R) (2009)] (1 page)	229903(E)
Daniel Podolsky and Yong Baek Kim	
Erratum: Tuning the in-plane electron behavior in high- T_c cuprate superconductors via apical atoms: A first-principles Wannier-states analysis [Phys. Rev. B 79 , 214512 (2009)] (1 page)	229904(E)
Wei-Guo Yin and Wei Ku	
Publisher's Note: Meissner response of a bulk superconductor with an embedded sheet of reduced penetration depth [Phys. Rev. B 81 , 184514 (2010)] (1 page)	229905(E)
John R. Kirtley, Beena Kalisky, Lan Luan, and Kathryn A. Moler	

