

PTU

PHYSICAL REVIEW

B

TM

CONDENSED MATTER AND MATERIALS PHYSICS

Articles Published in APRIL 2013

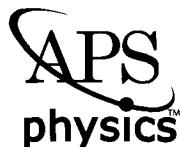
1(I)

Published by
AMERICAN PHYSICAL SOCIETY™

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

Hydrogen phase IV revisited via synchrotron infrared measurements in H ₂ and D ₂ up to 290 GPa at 296 K (<i>5 pages</i>)	134101
Paul Loubeyre, Florent Occelli, and Paul Dumas	
Low-symmetry monoclinic ferroelectric phase stabilized by oxygen octahedra rotations in strained Eu _x Sr _{1-x} TiO ₃ thin films (<i>9 pages</i>)	134102
Anna N. Morozovska, Yijia Gu, Victoria V. Khist, Maya D. Glinchuk, Long-Qing Chen, Venkatraman Gopalan, and Eugene A. Eliseev	
Melting of graphene clusters (<i>9 pages</i>)	134103
Sandeep Kumar Singh, M. Neek-Amal, and F. M. Peeters	
Ab initio analysis of the defect structure of ceria (<i>11 pages</i>)	134104
T. Zacherle, A. Schriever, R. A. De Souza, and M. Martin	
Multicomponent phase-field crystal model for structural transformations in metal alloys (<i>15 pages</i>)	134105
Nana Ofori-Opoku, Vahid Fallah, Michael Greenwood, Shahrzad Esmaeili, and Nikolas Provatas	
Dislocation core radii near elastic stability limits (<i>7 pages</i>)	134106
C. A. Sawyer, J. W. Morris, Jr., and D. C. Chrzan	
Energetic landscape and diffusion of He in α -Fe grain boundaries from first principles (<i>11 pages</i>)	134107
Lei Zhang, Chu-Chun Fu, and Guang-Hong Lu	
Self-interstitial defects in hexagonal close packed metals revisited: Evidence for low-symmetry configurations in Ti, Zr, and Hf (<i>6 pages</i>)	134108
G. Vérité, C. Domain, Chu-Chun Fu, P. Gasca, A. Legris, and F. Willaime	
Comprehensive examination of dopants and defects in BaTiO ₃ from first principles (<i>7 pages</i>)	134109
V. Sharma, G. Pilania, G. A. Rossetti Jr., K. Slenes, and R. Ramprasad	
Inhomogeneous, disordered, and partially ordered systems	
Ensemble renormalization group for disordered systems (<i>7 pages</i>)	134201
Maria Chiara Angelini, Giorgio Parisi, and Federico Ricci-Tersenghi	
Many-body localization in a quasiperiodic system (<i>15 pages</i>)	134202
Shankar Iyer, Vadim Oganesyan, Gil Refael, and David A. Huse	



Ioffe-Regel criterion and diffusion of vibrations in random lattices (<i>20 pages</i>)	134203
Y. M. Beltukov, V. I. Kozub, and D. A. Parshin	
Thermodynamics of a Potts-like model for a reconstructed zigzag edge in graphene nanoribbons (<i>16 pages</i>)	134204
J. N. B. Rodrigues, P. A. D. Gonçalves, Jaime E. Santos, and A. H. Castro Neto	
Numerical results for the Edwards-Anderson spin-glass model at low temperature (<i>8 pages</i>)	134205
Julio F. Fernández and Juan J. Alonso	
Dynamic transitions in molecular dynamics simulations of supercooled silicon (<i>7 pages</i>)	134206
Xiaojun Mei and Jacob Eapen	
Simulation of quantum zero-point effects in water using a frequency-dependent thermostat (<i>11 pages</i>)	134207
Sriram Ganeshan, R. Ramírez, and M. V. Fernández-Serra	
Dual fermion method for disordered electronic systems (<i>6 pages</i>)	134208
H. Terletska, S.-X. Yang, Z. Y. Meng, J. Moreno, and M. Jarrell	
Dynamics, dynamical systems, lattice effects:	
Dynamics of quantum coherences at strong coupling to a heat bath (<i>9 pages</i>)	134301
Denis Kast and Joachim Ankerhold	
First-principles study of transport properties in Os and OsSi (<i>9 pages</i>)	134302
Bin Xu and Matthieu J. Verstraete	
<i>Ab initio</i> study of the stabilities of and mechanism of superionic transport in lithium-rich antiperovskites (<i>8 pages</i>)	134303
Yi Zhang, Yusheng Zhao, and Changfeng Chen	
Magnetism	
Effect of quantum well states in Cu overlayer on magnetic anisotropy of Fe and Co films revisited (<i>7 pages</i>)	134401
S. Manna, P. L. Gastelois, M. Dąbrowski, P. Kuświk, M. Cinal, M. Przybylski, and J. Kirschner	
Spin orders and lattice distortions of geometrically frustrated 6H-perovskites $Ba_3B' Ru_2O_9$ ($B' = La^{3+}$, Nd^{3+} , and Y^{3+}) (<i>8 pages</i>)	134402
Mark S. Senn, Simon A. J. Kimber, Angel M. Arevalo Lopez, Adrian H. Hill, and J. Paul Attfield	
Magnetoelectric resonances and predicted microwave diode effect of the skyrmion crystal in a multiferroic chiral-lattice magnet (<i>5 pages</i>)	134403
Masahito Mochizuki and Shinichiro Seki	
Exchange bias, training effect, and bimodal distribution of blocking temperatures in electrodeposited core-shell nanotubes (<i>7 pages</i>)	134404
M. P. Proenca, J. Ventura, C. T. Sousa, M. Vazquez, and J. P. Araujo	
Influence of short-range spin correlations on the μ SR polarization functions in the slow dynamic limit: Application to the quantum spin-liquid system $Yb_2Ti_2O_7$ (<i>8 pages</i>)	134405
A. Yaouanc, A. Maisuradze, and P. Dalmas de Réotier	
Field-dependent thermal conductivity and Lorenz number in Co/Cu multilayers (<i>9 pages</i>)	134406
Johannes Kimling, Cornelius Nielsch, Karsten Rott, and Günter Reiss	
Fluctuation-induced first-order phase transition in Dzyaloshinskii-Moriya helimagnets (<i>16 pages</i>)	134407
M. Janoschek, M. Garst, A. Bauer, P. Krautscheid, R. Georgii, P. Böni, and C. Pfleiderer	

(Continued)

Yb ₂ Sn ₂ O ₇ : A magnetic Coulomb liquid at a quantum critical point (<i>5 pages</i>)	134408
Z. L. Dun, E. S. Choi, H. D. Zhou, A. M. Hallas, H. J. Silverstein, Y. Qiu, J. R. D. Copley, J. S. Gardner, and C. R. Wiebe	
Weak ferromagnetism with the Kondo screening effect in the Kondo lattice systems (<i>5 pages</i>)	134409
Yu Liu, Guang-Ming Zhang, and Lu Yu	
Magnetic and electronic properties of NpCo ₂ : Evidence for long-range magnetic order (<i>7 pages</i>)	134410
J. P. Sanchez, J.-C. Griveau, P. Javorsky, E. Colineau, R. Eloirdi, P. Boulet, J. Rebizant, F. Wastin, A. B. Shick, and R. Caciuffo	
Perpendicular magnetic anisotropy and noncollinear magnetic structure in ultrathin Fe films on W(110) (<i>8 pages</i>)	134411
M. Ślęzak, T. Ślęzak, K. Freindl, W. Karaś, N. Spiridis, M. Zajac, A. I. Chumakov, S. Stankov, R. Rüffer, and J. Korecki	
Barium vanadium silicate BaVSi ₂ O ₇ : A <i>t</i> _{2g} counterpart of the Han purple compound (<i>8 pages</i>)	134412
A. Vasiliev, O. Volkova, E. Zvereva, M. Isobe, Y. Ueda, S. Yoshii, H. Nojiri, V. Mazurenko, M. Valentyuk, V. Anisimov, I. Solovyev, R. Klingeler, and B. Büchner	
Spin dynamics in the unconventional multiferroic AgCrS ₂ (<i>8 pages</i>)	134413
F. Damay, S. Petit, M. Braendlein, S. Rols, J. Ollivier, C. Martin, and A. Maignan	
Spin/orbit moment imbalance in the near-zero moment ferromagnetic semiconductor SmN (<i>5 pages</i>)	134414
Eva-Maria Anton, B. J. Ruck, C. Meyer, F. Natali, Harry Warring, Fabrice Wilhelm, A. Rogalev, V. N. Antonov, and H. J. Trodahl	
Nonvolatile reconfigurable current divider based on spin extraction in lateral ferromagnet/nonmagnet transport structures (<i>6 pages</i>)	134415
Yori Manzke, Rouin Farshchi, Paweł Bruski, Jens Herfort, and Manfred Ramsteiner	
Spin state and spectroscopic modes of multiferroic BiFeO ₃ (<i>10 pages</i>)	134416
Randy S. Fishman, Jason T. Haraldsen, Nobuo Furukawa, and Shin Miyahara	
Electric-field-induced reorientation and flip in domain magnetization and light diffraction in an yttrium-iron-garnet/lead-zirconate-titanate bilayer (<i>7 pages</i>)	134417
I. V. Zavisljak, V. P. Sohatsky, M. A. Popov, and G. Srinivasan	
Spin dynamics and resonant inelastic x-ray scattering in chromium with commensurate spin-density wave order (<i>8 pages</i>)	134418
Koudai Sugimoto, Zhi Li, Eiji Kaneshita, Kenji Tsutsui, and Takami Tohyama	
Theory of ground-state switching in an array of magnetic nanodots by application of a short external magnetic field pulse (<i>12 pages</i>)	134419
Roman Verba, Vasil Tiberkevich, Konstantin Guslienko, Gennadiy Melkov, and Andrei Slavin	
Universality in the entropy change for the inverse magnetocaloric effect (<i>7 pages</i>)	134420
Anis Biswas, Sayan Chandra, Tapas Samanta, Barnali Ghosh, Subarna Datta, M. H. Phan, A. K. Raychaudhuri, I. Das, and H. Srikanth	
Identifying the critical point of the weakly first-order itinerant magnet DyCo ₂ with complementary magnetization and calorimetric measurements (<i>6 pages</i>)	134421
K. Morrison, A. Dupas, Y. Mudryk, V. K. Pecharsky, K. A. Gschneidner, A. D. Caplin, and L. F. Cohen	

(Continued)

Magnetic states in low-pinning high-anisotropy material nanostructures suitable for dynamic imaging (<i>6 pages</i>)	134422
Felix Büttner, C. Moutafis, A. Bisig, P. Wohlhüter, C. M. Günther, J. Mohanty, J. Geilhufe, M. Schneider, C. v. Korff Schmising, S. Schaffert, B. Pfau, M. Hantschmann, M. Riemeier, M. Emmel, S. Finizio, G. Jakob, M. Weigand, J. Rhensius, J. H. Franken, R. Lavrijsen, H. J. M. Swagten, H. Stoll, S. Eisebitt, and M. Kläui	
Observation of an intersublattice exchange magnon in CoCr_2O_4 and analysis of magnetic ordering (<i>5 pages</i>)	134423
D. Kamenskyi, H. Engelkamp, T. Fischer, M. Uhlitz, J. Wosnitza, B. P. Gorshunov, G. A. Komandin, A. S. Prokhorov, M. Dressel, A. A. Bush, V. I. Torgashev, and A. V. Pronin	
Giant generic topological Hall resistivity of MnSi under pressure (<i>17 pages</i>)	134424
R. Ritz, M. Halder, C. Franz, A. Bauer, M. Wagner, R. Bamler, A. Rosch, and C. Pfleiderer	
Gyrotropic frequencies of pinned vortices in magnetic nanodisks (<i>4 pages</i>)	134425
C. E. Zaspel	
Interfacial coupling in multiferroic/ferromagnet heterostructures (<i>6 pages</i>)	134426
M. Trassin, J. D. Clarkson, S. R. Bowden, Jian Liu, J. T. Heron, R. J. Paull, E. Arenholz, D. T. Pierce, and J. Unguris	
Superfluidity and superconductivity	
Vortex structures in model <i>p</i> -wave superconducting Sr_2RuO_4 : Single two-dimensional band vs quasi-one-dimensional bands (<i>9 pages</i>)	134501
Jia-Wei Huo and Fu-Chun Zhang	
Pressure dependence of superconducting critical temperature and upper critical field of $2H\text{-NbS}_2$ (<i>6 pages</i>)	134502
V. G. Tissen, M. R. Osorio, J. P. Brison, N. M. Nemes, M. García-Hernández, L. Cario, P. Rodière, S. Vieira, and H. Suderow	
Phase structure and phase transitions in a three-dimensional $SU(2)$ superconductor (<i>14 pages</i>)	134503
Egil V. Herland, Troels A. Bojesen, Egor Babaev, and Asle Sudbø	
Tunable coupling engineering between superconducting resonators: From sidebands to effective gauge fields (<i>12 pages</i>)	134504
Borja Peropadre, David Zueco, Friedrich Wulschner, Frank Deppe, Achim Marx, Rudolf Gross, and Juan José García-Ripoll	
Probe spectroscopy of quasienergy states (<i>11 pages</i>)	134505
Matti Silveri, Jani Tuorila, Mika Kemppainen, and Erkki Thuneberg	
Electrostatic tailoring of magnetic interference in quantum point contact ballistic Josephson junctions (<i>5 pages</i>)	134506
M. Amado, A. Fornieri, F. Carillo, G. Biasiol, L. Sorba, V. Pellegrini, and F. Giazotto	
Magnetic neutron diffraction study of $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ critical exponents through the tricritical doping (<i>6 pages</i>)	134507
D. M. Pajerowski, C. R. Rotundu, J. W. Lynn, and R. J. Birgeneau	
Magnetic form factor, field map, and field distribution for a BCS type-II superconductor near its $B_{c2}(T)$ phase boundary (<i>14 pages</i>)	134508
A. Maisuradze and A. Yaouanc	
Tight-binding description of intrinsic superconducting correlations in multilayer graphene (<i>7 pages</i>)	134509
W. A. Muñoz, L. Covaci, and F. M. Peeters	

(Continued)

Comment on “Phase diagram of reentrant and magnetic-field-induced superconducting states with Kondo impurities in bulk and proximity-coupled compounds” (3 pages).....	136501
Guy Deutscher, Shay Hacohen-Gourgy, and A. C. Mota	
Reply to “Comment on ‘Phase diagram of reentrant and magnetic-field-induced superconducting states with Kondo impurities in bulk and proximity-coupled compounds’ ” (2 pages).....	136502
Yuval B. Simons, Ora Entin-Wohlman, Yuval Oreg, and Yoseph Imry	

ERRATA

Publisher’s Note: Nonlocal effect and dimensions of Cooper pairs measured by low-energy muons and polarized neutrons in type-I superconductors [Phys. Rev. B 87 , 104508 (2013)] (1 page).....	139901(E)
V. Kozhevnikov, A. Suter, H. Fritzsch, V. Gladilin, A. Volodin, T. Moorkens, M. Trekels, J. Cuppens, B. M. Wojek, T. Prokscha, E. Morenzoni, G. J. Nieuwenhuys, M. J. Van Bael, K. Temst, C. Van Haesendonck, and J. O. Indekeu	
Erratum: Frustrated pentagonal Cairo lattice in the non-collinear antiferromagnet Bi ₄ Fe ₅ O ₁₃ F [Phys. Rev. B 87 , 024423 (2013)] (1 page).....	139902(E)
Artem M. Abakumov, Dmitry Batuk, Alexander A. Tsirlin, Clemens Prescher, Leonid Dubrovinsky, Denis V. Sheptyakov, Walter Schnelle, Joke Hadermann, and Gustaaf Van Tendeloo	
Erratum: Antiferromagnetic spin ice correlations at ($\frac{1}{2}, \frac{1}{2}, \frac{1}{2}$) in the ground state of the pyrochlore magnet Tb ₂ Ti ₂ O ₇ [Phys. Rev. B 87 , 094410 (2013)] (1 page).....	139903(E)
K. Fritsch, K. A. Ross, Y. Qiu, J. R. D. Copley, T. Guidi, R. I. Bewley, H. A. Dabkowska, and B. D. Gaulin	
Publisher’s Note: Full magnetoelectric response of Cr ₂ O ₃ from first principles [Phys. Rev. B 86 , 094430 (2012)] (1 page).....	139904(E)
Andrei Malashevich, Sinisa Coh, Ivo Souza, and David Vanderbilt	
Erratum: Classifying fractionalization: Symmetry classification of gapped \mathbb{Z}_2 spin liquids in two dimensions [Phys. Rev. B 87 , 104406 (2013)] (1 page).....	139905(E)
Andrew M. Essin and Michael Hermele	
Erratum: Breakdown of Hund’s third rule in amorphous Co-W nanoparticles and crystalline Co ₃ W alloys [Phys. Rev. B 86 , 064428 (2012)] (1 page).....	139906(E)
A. I. Figueroa, F. Bartolomé, J. Bartolomé, L. M. García, F. Petroff, C. Deranlot, F. Wilhelm, and A. Rogalev	
Erratum: Magnetic excitations and orbital physics in the ferrimagnetic spinels MnB ₂ O ₄ ($B = \text{Mn, V}$) [Phys. Rev. B 77 , 054412 (2008)] (1 page).....	139907(E)
J.-H. Chung, J.-H. Kim, S.-H. Lee, T. J. Sato, T. Suzuki, M. Katsumura, and T. Katsufuji	