

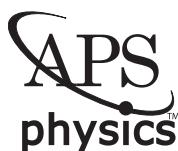
ARTICLES

Structure, structural phase transitions, mechanical properties, defects

- Hexagonal structure of phase III of solid hydrogen (7 pages) 134101
Bartomeu Monserrat, Richard J. Needs, Eugene Gregoryanz, and Chris J. Pickard
- Precipitation of anion inclusions and plasticity under hydrostatic pressure in II-VI crystals (18 pages) 134102
G. P. Lindberg and B. A. Weinstein
- Nonlinear coda wave analysis of hysteretic elastic behavior in strongly scattering media (10 pages) 134103
M. Ait Ouarabi, F. Boubenider, A. S. Gliozzi, and M. Scalerandi
- Structural and electronic phase transitions of ThS₂ from first-principles calculations (8 pages) 134104
Yongliang Guo, Changying Wang, Wujie Qiu, Xuezhi Ke, Ping Huai, Cheng Cheng, Zhiyuan Zhu, and Changfeng Chen
- Crystallization processes in the phase change material Ge₂Sb₂Te₅: Unbiased density functional/molecular dynamics simulations (8 pages) 134105
J. Kalikka, J. Akola, and R. O. Jones
- Scale bridging description of coherent phase equilibria in the presence of surfaces and interfaces (23 pages) 134106
R. Spatschek, G. Gobbi, C. Hüter, A. Chakrabarty, U. Aydin, S. Brinckmann, and J. Neugebauer
- Decoherence of three-level systems: Application to nitrogen-vacancy centers in diamond near a surface (12 pages) 134107
Shigeru Ajisaka and Y. B. Band
- Monazite-type SrCrO₄ under compression (13 pages) 134108
J. Gleissner, D. Errandonea, A. Segura, J. Pellicer-Porres, M. A. Hakeem, J. E. Proctor, S. V. Raju, R. S. Kumar, P. Rodríguez-Hernández, A. Muñoz, S. Lopez-Moreno, and M. Bettinelli
- High-pressure phase of LaPO₄ studied by x-ray diffraction and second harmonic generation (6 pages) 134109
J. Ruiz-Fuertes, A. Hirsch, A. Friedrich, B. Winkler, L. Bayarjargal, W. Morgenroth, L. Peters, G. Roth, and V. Milman

Inhomogeneous, disordered, and partially ordered systems

- Intervalley scattering of graphene massless Dirac fermions at 3-periodic grain boundaries (12 pages) 134201
J. N. B. Rodrigues
- Quantum diagrammatic theory of the extrinsic spin Hall effect in graphene (16 pages) 134202
Mirco Millettari and Aires Ferreira



CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 94, NUMBER 13

OCTOBER 2016-1(I)

Transport and localization in a topological phononic lattice with correlated disorder (<i>12 pages</i>)	134203
Zhun-Yong Ong and Ching Hua Lee	
Purcell effect at the percolation transition (<i>8 pages</i>)	134204
D. Szilard, W. J. M. Kort-Kamp, F. S. S. Rosa, F. A. Pinheiro, and C. Farina	
Dynamics, dynamical systems, lattice effects:	
Pressure effect on hydrogen tunneling and vibrational spectrum in α -Mn (<i>5 pages</i>)	134301
A. I. Kolesnikov, A. Podlesnyak, R. A. Sadykov, V. E. Antonov, M. A. Kuzovnikov, G. Ehlers, and G. E. Granroth	
Dynamic effects of quenched disorder on domain wall motion in magnetic nanowires (<i>7 pages</i>)	134302
Y. Y. He, B. Zheng, and N. J. Zhou	
Direct calculation of the linear thermal expansion coefficients of MoS ₂ via symmetry-preserving deformations (<i>6 pages</i>)	134303
Chee Kwan Gan and Yu Yang Fredrik Liu	
Entanglement entropy in a periodically driven quantum Ising ring (<i>5 pages</i>)	134304
Tony J. G. Apollaro, G. Massimo Palma, and Jamir Marino	
Microscopic modeling of the effect of phonons on the optical properties of solid-state emitters (<i>8 pages</i>)	134305
Ariel Norambuena, Sebastián A. Reyes, José Mejía-López, Adam Gali, and Jerónimo R. Maze	
Electron-phonon scattering effects on electronic and optical properties of orthorhombic GeS (<i>8 pages</i>)	134306
Cesar E. P. Villegas, A. R. Rocha, and Andrea Marini	
Effects of intense optical phonon pumping on the structure and electronic properties of yttrium barium copper oxide (<i>9 pages</i>)	134307
M. Fechner and N. A. Spaldin	
Atomistic description for temperature-driven phase transitions in BaTiO ₃ (<i>8 pages</i>)	134308
Y. Qi, S. Liu, I. Grinberg, and A. M. Rappe	
 Weak coupling of pseudoacoustic phonons and magnon dynamics in the incommensurate spin-ladder compound Sr ₁₄ Cu ₂₄ O ₄₁ (<i>13 pages</i>)	134309
Xi Chen, Dipanshu Bansal, Sean Sullivan, Douglas L. Abernathy, Adam A. Aczel, Jianshi Zhou, Olivier Delaire, and Li Shi	
Spontaneous formation and synchronization of vortex modes in optically induced traps for exciton-polariton condensates (<i>7 pages</i>)	134310
Alexey V. Yulin, Anton S. Desyatnikov, and Elena A. Ostrovskaya	
Short-time universal scaling and light-cone dynamics after a quench in an isolated quantum system in d spatial dimensions (<i>31 pages</i>)	134311
Alessio Chiocchetta, Marco Tavora, Andrea Gambassi, and Aditi Mitra	
Effects of crystal anisotropy on optical phonon resonances in midinfrared second harmonic response of SiC (<i>9 pages</i>)	134312
Alexander Paarmann, Ilya Razdolski, Sandy Gewinner, Wieland Schöllkopf, and Martin Wolf	
Spatial compression of a particle state in a parabolic potential by spin measurements (<i>6 pages</i>)	134313
P. V. Pyshkin, E. Ya. Sherman, Da-Wei Luo, J. Q. You, and Lian-Ao Wu	

(Continued)

Magnetism

Applicability of scaling behavior and power laws in the analysis of the magnetocaloric effect in second-order phase transition materials (<i>13 pages</i>)	134401
Carlos Romero-Muñiz, Ryo Tamura, Shu Tanaka, and Victorino Franco	
Spin reorientation, magnetization reversal, and negative thermal expansion observed in $R\text{Fe}_{0.5}\text{Cr}_{0.5}\text{O}_3$ perovskites ($R = \text{Lu}, \text{Yb}, \text{Tm}$) (<i>9 pages</i>)	134402
Fernando Pomiro, Rodolfo D. Sánchez, Gabriel Cuello, Antoine Maignan, Christine Martin, and Raúl E. Carbonio	
Insight into the antiferromagnetic structure manipulated by electronic reconstruction (<i>8 pages</i>)	134403
B. Cui, F. Li, C. Song, J. J. Peng, M. S. Saleem, Y. D. Gu, S. N. Li, K. L. Wang, and F. Pan	
Magnetostriction-driven ground-state stabilization in 2H perovskites (<i>11 pages</i>)	134404
D. G. Porter, M. S. Senn, D. D. Khalyavin, A. Cortese, N. Waterfield-Price, P. G. Radaelli, P. Manuel, H.-C. zur-Loye, C. Mazzoli, and A. Bombardi	
Low-temperature specific heat in hydrogenated and Mn-doped $\text{La}(\text{Fe}, \text{Si})_{13}$ (<i>7 pages</i>)	134405
Edmund Lovell, Luis Ghivelder, Amanda Nicotina, Jeremy Turcaud, Milan Bratko, A. David Caplin, Vittorio Basso, Alexander Barcza, Matthias Katter, and Lesley F. Cohen	
Vertical spin Hall magnetoresistance in $\text{Ta}_{1-x}\text{Pt}_x/\text{YIG}$ bilayers (<i>5 pages</i>)	134406
J. H. Han, G. Y. Shi, X. J. Zhou, Q. H. Yang, Y. H. Rao, G. Li, H. W. Zhang, F. Pan, and C. Song	
Coupling of magnetic orders in $\text{La}_2\text{CuO}_{4+x}$ (<i>5 pages</i>)	134407
Vyacheslav G. Storchak, Jess H. Brewer, Dmitry G. Eshchenko, Patrick W. Mengyan, Oleg E. Parfenov, Andrey M. Tokmachev, and Pinder Dosanjh	
Spin-wave modes of ferromagnetic films (<i>21 pages</i>)	134408
R. E. Arias	
Numerical evidence for a chiral spin liquid in the XXZ antiferromagnetic Heisenberg model on the kagome lattice at $m = \frac{2}{3}$ magnetization (<i>11 pages</i>)	134410
Krishna Kumar, Hitesh J. Changlani, Bryan K. Clark, and Eduardo Fradkin	
From complex magnetism ordering to simple ferromagnetism in two-dimensional LaCrSb_3 by hole doping (<i>6 pages</i>)	134411
Haijie Chen, Awadhesh Narayan, Lei Fang, Nicholas P. Calta, Fengyuan Shi, Duck Young Chung, Lucas K. Wagner, Wai-Kwong Kwok, and Mercouri G. Kanatzidis	
Spin and orbital ordering in TlMnO_3 : Neutron diffraction study (<i>7 pages</i>)	134412
Dmitry D. Khalyavin, Pascal Manuel, Wei Yi, and Alexei A. Belik	
Employing soft x-ray resonant magnetic scattering to study domain sizes and anisotropy in Co/Pd multilayers (<i>9 pages</i>)	134413
Kai Bagschik, Robert Frömter, Judith Bach, Björn Beyersdorff, Leonard Müller, Stefan Schleitzer, Magnus Hårdensson Berntsen, Christian Weier, Roman Adam, Jens Viefhaus, Claus Michael Schneider, Gerhard Grübel, and Hans Peter Oepen	
Magnetic properties of the covalent chain antiferromagnet RbFeSe_2 (<i>8 pages</i>)	134414
Z. Seidov, H.-A. Krug von Nidda, V. Tsurkan, I. G. Filippova, A. Günther, T. P. Gavrilova, F. G. Vagizov, A. G. Kiiamov, L. R. Tagirov, and A. Loidl	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 94, NUMBER 13

OCTOBER 2016-1(I)

Quantum skyrmions in two-dimensional chiral magnets (<i>8 pages</i>)	134415
Rina Takashima, Hiroaki Ishizuka, and Leon Balents	
Magnetic excitations in quasi-one-dimensional helimagnets: Magnon decays and influence of interchain interactions (<i>23 pages</i>)	134416
Z. Z. Du, H. M. Liu, Y. L. Xie, Q. H. Wang, and J.-M. Liu	
Relief of frustration in the Heisenberg pyrochlore antiferromagnet $\text{Gd}_2\text{Pt}_2\text{O}_7$ (<i>7 pages</i>)	134417
A. M. Hallas, A. Z. Sharma, Y. Cai, T. J. Munsie, M. N. Wilson, M. Tachibana, C. R. Wiebe, and G. M. Luke	
Electrical detection of spiral spin structures in $\text{Pt}/\text{Cu}_2\text{OSeO}_3$ heterostructures (<i>11 pages</i>)	134418
A. Aqeel, N. Vlietstra, A. Roy, M. Mostovoy, B. J. van Wees, and T. T. M. Palstra	
Nanoscale control of heat and spin conduction in artificial spin chains (<i>6 pages</i>)	134419
Simone Borlenghi, M. R. Mahani, Anna Delin, and Jonas Fransson	
Spin liquid versus long-range magnetic order in the frustrated body-centered-tetragonal lattice (<i>6 pages</i>)	134420
Carlene Farias, Christopher Thomas, Catherine Pépin, Alvaro Ferraz, Claudine Lacroix, and Sébastien Burdin	
Spatial symmetry of spin pumping and inverse spin Hall effect in the $\text{Pt}/\text{Y}_3\text{Fe}_5\text{O}_{12}$ system (<i>11 pages</i>)	134421
Hengan Zhou, Xiaolong Fan, Li Ma, Qihan Zhang, Lei Cui, Shiming Zhou, Y. S. Gui, C.-M. Hu, and Desheng Xue	
Exchange-biased Py/CoO vortex structures: Magnetization reversal, cooling-field dependence, and training (<i>6 pages</i>)	134422
D. Nissen, O. Klein, P. Matthes, and M. Albrecht	
Geometric orbital susceptibility: Quantum metric without Berry curvature (<i>11 pages</i>)	134423
Frédéric Piéchon, Arnaud Raoux, Jean-Noël Fuchs, and Gilles Montambaux	
 Finding and proving the exact ground state of a generalized Ising model by convex optimization and MAX-SAT (<i>12 pages</i>)	134424
Wenxuan Huang, Daniil A. Kitchaev, Stephen T. Dacek, Ziqin Rong, Alexander Urban, Shan Cao, Chuan Luo, and Gerbrand Ceder	
Controlling magnetic interfaces using ordered surface alloys (<i>13 pages</i>)	134425
Chenlu Ji, Zhe Wang, Qiang Wu, Li Huang, and M. S. Altman	
Charge transport in superionic and melted AgI under a magnetic field studied via molecular dynamics (<i>10 pages</i>)	134426
Luca Gagliardi and Sara Bonella	
Neutron diffraction study of low-temperature magnetic phase diagram of an isosceles-triangular-lattice Ising antiferromagnet CoNb_2O_6 (<i>8 pages</i>)	134427
S. Kobayashi, S. Mitsuda, S. Hosaka, H. Tamatsukuri, T. Nakajima, H. Koorikawa, K. Prokeš, and K. Kiefer	
Magnetic properties and crystal field in $\text{Pr}_2\text{Zr}_2\text{O}_7$ (<i>7 pages</i>)	134428
P. Bonville, S. Guitteny, A. Gukasov, I. Mirebeau, S. Petit, C. Decorse, M. Ciomaga Hatnean, and G. Balakrishnan	
Magnetic ground states in the three Os^{6+} ($5d^2$) double perovskites Ba_2MOsO_6 ($M = \text{Mg}, \text{Zn}, \text{and Cd}$) from Néel order to its suppression (<i>10 pages</i>)	134429
C. A. Marjerrison, C. M. Thompson, A. Z. Sharma, A. M. Hallas, M. N. Wilson, T. J. S. Munsie, R. Flacau, C. R. Wiebe, B. D. Gaulin, G. M. Luke, and J. E. Greedan	

(Continued)

Detection of magnetic circular dichroism with subnanometer convergent electron beams (<i>7 pages</i>)	134430
Thomas Thersleff, Ján Ruzs, Björgvin Hjörvarsson, and Klaus Leifer	
Effects of interactions on the relaxation processes in magnetic nanostructures (<i>8 pages</i>)	134431
Lewis J. Atkinson, Thomas A. Ostler, O. Hovorka, K. K. Wang, B. Lu, G. P. Ju, J. Hohlfeld, B. Bergman, B. Koopmans, and Roy W. Chantrell	
Temperature-dependent magnetization in bimagnetic nanoparticles with antiferromagnetic interfacial exchange (<i>8 pages</i>)	134432
N. R. Anderson and R. E. Camley	
Magnetic relaxation phenomena in the chiral magnet $\text{Fe}_{1-x}\text{Co}_x\text{Si}$: An ac susceptibility study (<i>9 pages</i>)	134433
L. J. Bannenberg, A. J. E. Lefering, K. Kakurai, Y. Onose, Y. Endoh, Y. Tokura, and C. Pappas	
Superfluidity and superconductivity	
Quantum critical behavior of the superfluid-Mott glass transition (<i>10 pages</i>)	134501
Thomas Vojta, Jack Crewse, Martin Puschmann, Daniel Arovas, and Yury Kiselev	
Surface electronic structure and evidence of plain <i>s</i> -wave superconductivity in $(\text{Li}_{0.8}\text{Fe}_{0.2})\text{OHFeSe}$ (<i>9 pages</i>)	134502
Y. J. Yan, W. H. Zhang, M. Q. Ren, X. Liu, X. F. Lu, N. Z. Wang, X. H. Niu, Q. Fan, J. Miao, R. Tao, B. P. Xie, X. H. Chen, T. Zhang, and D. L. Feng	
Evidence for correlated dynamics near the Berezinskii-Kosterlitz-Thouless-like transition in highly underdoped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ (<i>6 pages</i>)	134503
Zhenzhong Shi, Xiaoyan Shi, and Dragana Popović	
Interplay of screening and superconductivity in low-dimensional materials (<i>7 pages</i>)	134504
G. Schönhoff, M. Rösner, R. E. Groenewald, S. Haas, and T. O. Wehling	
Structural-transition-induced quasi-two-dimensional Fermi surface in FeSe (<i>6 pages</i>)	134505
Yue Sun, Tatsuhiro Yamada, Sunseng Pyon, and Tsuyoshi Tamegai	
Magnetoelectrics in disordered topological insulator Josephson junctions (<i>9 pages</i>)	134506
I. V. Bobkova, A. M. Bobkov, Alexander A. Zyuzin, and Mohammad Alidoust	
Relation between the structural phase transition and superconductivity in $\text{Cu}_x\text{IrTe}_{2-y}\text{Se}_y$ (<i>6 pages</i>)	134507
M. Kamitani, H. Sakai, Y. Tokura, and S. Ishiwata	
Drude weight in hard-core boson systems: Possibility of a finite-temperature ideal conductor (<i>14 pages</i>)	134508
Gourab Majumder and Arti Garg	
Robustness of superconductivity to competing magnetic phases in tetragonal FeS (<i>5 pages</i>)	134509
Franziska K. K. Kirschner, Franz Lang, Craig V. Topping, Peter J. Baker, Francis L. Pratt, Sophie E. Wright, Daniel N. Woodruff, Simon J. Clarke, and Stephen J. Blundell	
Persistent magnetism in silver-doped BaFe_2As_2 crystals (<i>8 pages</i>)	134510
Li Li, Huibo Cao, David S. Parker, Stephen J. Kuhn, and Athena S. Sefat	
 Determining the spin-orbit coupling via spin-polarized spectroscopy of magnetic impurities (<i>23 pages</i>)	134511
V. Kaladzhyan, P. Simon, and C. Bena	
Topologically stable gapless phases in nonsymmorphic superconductors (<i>11 pages</i>)	134512
Shingo Kobayashi, Youichi Yanase, and Masatoshi Sato	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 94, NUMBER 13

OCTOBER 2016-1(I)

Topological phase transitions and a two-dimensional Weyl superconductor in a half-metal/superconductor heterostructure (<i>11 pages</i>)	134513
Lei Hao and C. S. Ting	
Investigation of potential fluctuating intra-unit cell magnetic order in cuprates by μ SR (<i>5 pages</i>)	134514
A. Pal, K. Akintola, M. Potma, M. Ishikado, H. Eisaki, W. N. Hardy, D. A. Bonn, R. Liang, and J. E. Sonier	
Impact of iron-site defects on superconductivity in LiFeAs (<i>6 pages</i>)	134515
Shun Chi, Ramakrishna Aluru, Udai Raj Singh, Ruixing Liang, Walter N. Hardy, D. A. Bonn, A. Kreisel, Brian M. Andersen, R. Nelson, T. Berlijn, W. Ku, P. J. Hirschfeld, and Peter Wahl	
Nuclear magnetic relaxation rates of unconventional superconductivity in doped topological insulators (<i>8 pages</i>)	134516
Yuki Nagai and Yukihiro Ota	
Pressure effects on the unconventional superconductivity of noncentrosymmetric LaNiC ₂ (<i>14 pages</i>)	134517
B. Wiendlocha, R. Szczęśniak, A. P. Durajski, and M. Muras	
High critical temperature nodal superconductors as building block for time-reversal invariant topological superconductivity (<i>11 pages</i>)	134518
F. Trani, G. Campagnano, A. Tagliacozzo, and P. Lucignano	

COMMENTS

Comment on “Frustration and multicriticality in the antiferromagnetic spin-1 chain” (<i>4 pages</i>)	136401
Natalia Chepiga, Ian Affleck, and Frédéric Mila	

ERRATA

Publisher’s Note: Classification of magnetic inhomogeneities and $0-\pi$ transitions in superconducting-magnetic hybrid structures [Phys. Rev. B 94 , 104518 (2016)] (<i>1 page</i>)	139901(E)
Thomas E. Baker, Adam Richie-Halford, and Andreas Bill	
Erratum: Annealing temperature and thickness dependencies of structural and magnetic properties of Co ₂ FeAl thin films [Phys. Rev. B 94 , 104424 (2016)] (<i>1 page</i>)	139902(E)
M. Belmeguenai, M. S. Gabor, F. Zighem, Y. Roussigné, D. Faurie, and C. Tiusan	