

RAPID COMMUNICATIONS

Inhomogeneous, disordered, and partially ordered systems

- Phonon-density fluctuations and fast relaxation in glasses R14 685
V. N. Novikov
- Modification of dielectric properties of porous glass by adsorption of hydrogen R14 689
A. Dertinger, M. Schindler, Y. Kondo, and F. Pobell
- Phase diagram for a modified Harper model R14 693
Klaus Drese and Martin Holthaus

Dynamics, dynamical systems, lattice effects, quantum solids, etc.

- Strain-fluctuation effect on Raman spectra R14 697
L. A. Falkovsky, J. M. Bluet, and J. Camassel

Magnetism

- Ground states of the doped four-leg t - J ladder R14 701
Steven R. White and D. J. Scalapino
- Interchain coupling effects and solitons in CuGeO_3 R14 705
Jun Zang, Sudip Chakravarty, and A. R. Bishop
- Spin chains with a periodic array of impurities R14 709
Takahiro Fukui and Norio Kawakami
- Charge ordering in doped manganese oxides: Lattice dynamics and magnetic structure R14 713
J. D. Lee and B. I. Min
- Magnetic hysteresis anomalies in ferritin R14 717
Salah A. Makhlof, F. T. Parker, and A. E. Berkowitz
- Anomalous Hall effect in thin films of $\text{Pr}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ R14 721
P. Wagner, D. Mazilu, L. Trappeniers, V. V. Moshchalkov, and Y. Bruynseraede
- Spin-state transition in layered perovskite cobalt oxides: $\text{La}_{2-x}\text{Sr}_x\text{CoO}_4$ ($0.4 \leq x \leq 1.0$) R14 725
Y. Moritomo, K. Higashi, K. Matsuda, and A. Nakamura
- Magnetic circular dichroism in L_3 -resonant soft-x-ray inelastic scattering of disordered Fe-Co alloys R14 729
L. Braicovich, C. Dallera, G. Ghiringhelli, N. B. Brookes, and J. B. Goedkoop

Superfluidity and superconductivity

- Microwave response of $\text{YBa}_2\text{Cu}_3\text{O}_{6.95}$ crystals: Evidence for a multicomponent order parameter R14 733
H. Srikanth, B. A. Willemsen, T. Jacobs, S. Sridhar, A. Erb, E. Walker, and R. Flükiger
- Vortex melting in polycrystalline $\text{YBa}_2\text{Cu}_3\text{O}_7$ from ^{17}O NMR R14 737
A. P. Reyes, X. P. Tang, H. N. Bachman, W. P. Halperin, J. A. Martindale, and P. C. Hammel
- Quantum fluctuations in current-carrying thin films of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ R14 741
S. H. Moffat, R. A. Hughes, and J. S. Preston
- Crossover between Aslamazov-Larkin and short-wavelength fluctuation regimes in high-temperature-superconductor conductivity experiments R14 745
M. R. Cimberle, C. Ferdeghini, E. Giannini, D. Marré, M. Putti, A. Siri, F. Federici, and A. Varlamov



Seebeck effect in the mixed state of the 60-K phase of single-crystal $\text{YBa}_2\text{Cu}_3\text{O}_y$	R14 749
Y. Sato, I. Terasaki, and S. Tajima	
Irreversibility and flux-lattice melting in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$	R14 753
B. Billon, M. Charalambous, J. Chaussy, R. Koch, and R. Liang	
Spatially continuous zero-bias conductance peak on (110) $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ surfaces	R14 757
L. Alff, H. Takashima, S. Kashiwaya, N. Terada, H. Ihara, Y. Tanaka, M. Koyanagi, and K. Kajimura	
Magnetic order in $\text{La}_{1.85-x}\text{Nd}_x\text{Sr}_{0.15}\text{CuO}_4$ with $0.30 \leq x \leq 0.60$	R14 761
W. Wagener, H.-H. Klauß, M. Hillberg, M. A. C. de Melo, M. Birke, F. J. Litterst, B. Büchner, and H. Micklitz	

ARTICLES

Structure, structural phase transitions, mechanical properties, defects, etc.

Size criterion for amorphization of molecular ionic solids	14 765
G. Serghiou, H.-J. Reichmann, and R. Boehler	
Off-centering of Pb and Sn impurities in GeTe	14 770
A. I. Lebedev, I. A. Sluchinskaya, V. N. Demin, and I. H. Munro	
Optical potential and dispersion law for long-wavelength neutrons	14 774
V. K. Ignatovich and Masahiko Utsuro	
Energies of strained silica rings	14 784
D. R. Hamann	
Neutron-diffraction study of the rare-gas interstitial fullerene ArC_{60}	14 794
G. E. Gadd, S. J. Kennedy, S. Moricca, C. J. Howard, M. M. Elcombe, P. J. Evans, and M. James	
High-pressure infrared study of solid methane: Phase diagram up to 30 GPa	14 800
Roberto Bini and Gabriele Pratesi	
Conversion of titanium hydride to titanium nitride during mechanical milling	14 810
Heng Zhang and Erich H. Kisi	
Second-order Raman spectroscopic study of lithium hydride and lithium deuteride at high pressure	14 818
Allen C. Ho, Roland C. Hanson, and Andrew Chizmeshya	

Inhomogeneous, disordered, and partially ordered systems

Interstitial positions of tin ions in $\alpha\text{-(Fe}_{\text{rich}}\text{Sn)}_2\text{O}_3$ solid solutions prepared by mechanical alloying	14 830
J. Z. Jiang, R. Lin, K. Nielsen, S. Mørup, D. G. Rickerby, and R. Clasen	
Composition dependence of low-frequency excitations in lithium silicophosphate glasses by nuclear magnetic resonance and electrical conductivity	14 836
J. Dieckhöfer, O. Kanert, R. Küchler, A. Volmari, and H. Jain	
Quantum corrections to transport properties of icosahedral Al-Cu-Fe in extended regimes	14 847
M. Ahlgren, P. Lindqvist, M. Rodmar, and Ö. Rapp	

Dynamics, dynamical systems, lattice effects, quantum solids, etc.

Vibrational density of states and homogeneous linewidth in molecular crystals: Many-phonon processes in nitrogen	14 855
R. G. Della Valle, G. F. Signorini, and P. Procacci	
Dynamics of hydrogen, oxygen, and dislocations in yttrium by acoustic spectroscopy	14 865
G. Cannelli, R. Cantelli, F. Cordero, and F. Trequattrini	
Dynamical properties of small polarons	14 872
E. V. L. de Mello and J. Ranninger	
Mobile intersite bipolarons in the discrete Holstein-Hubbard model	14 886
A. La Magna and R. Pucci	

Raman and infrared reflectivity spectra of potassium lithium niobate single crystals	14 892
H. R. Xia, H. Yu, H. Yang, K. X. Wang, B. Y. Zhao, J. Q. Wei, J. Y. Wang, and Y. G. Liu	
Nonlinear dynamics of intermittent-contact mode atomic force microscopy	14 899
J. Berg and G. A. D. Briggs	
Dynamic critical phenomena in channel flow of driven particles in random media	14 909
Joe Watson and Daniel S. Fisher	
Slowing down of medium-energy electrons in solids	14 925
Wolfgang S. M. Werner	

Magnetism

Zero-temperature phase transitions of an antiferromagnetic Ising model of general spin on a triangular lattice	14 935
Chen Zeng and Christopher L. Henley	
Suzuki-Trotter decomposition and renormalization of a transverse-field Ising model in two dimensions	14 948
M. Dudziński and J. Sznajd	
Dynamics of the spin- $\frac{1}{2}$ Heisenberg chain at intermediate temperatures	14 953
O. A. Starykh, A. W. Sandvik, and R. R. P. Singh	
Ferromagnetism in an orbitally degenerate Hubbard model	14 968
J. Kuei and R. T. Scalettar	
Finite-temperature study of itinerant ferromagnetism in Fe, Co, and Ni	14 975
N. M. Rosengård and Börje Johansson	
Structure and magnetic order in undoped lanthanum manganite	14 987
Q. Huang, A. Santoro, J. W. Lynn, R. W. Erwin, J. A. Borchers, J. L. Peng, and R. L. Greene	
^{139}La NMR investigation of spin ordering in $\text{La}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$	15 000
G. Papavassiliou, M. Fardis, F. Milia, A. Simopoulos, G. Kallias, M. Pissas, D. Niarchos, N. Ioannidis, C. Dimitropoulos, and J. Dolinsek	
Linear and cubic dynamic susceptibilities of superparamagnetic fine particles	15 005
Yuri L. Raikher and Victor I. Stepanov	
Decay properties of microwave-magnetic-envelope solitons in yttrium iron garnet films	15 018
Hua Xia, Pavel Kabos, Carl E. Patton, and Harold E. Ensle	
Magnetic anisotropy and magnetostriction in tetragonal and cubic Ni	15 026
O. Hjortstam, K. Baberschke, J. M. Wills, B. Johansson, and O. Eriksson	
Magnetic anisotropy of close-packed (111) ultrathin transition-metal films: Role of interlayer packing	15 033
J. Dorantes-Dávila, H. Dreyssé, and G. M. Pastor	
Observations of long-period structures associated with charge ordering in $\text{Bi}_{0.2}\text{Ca}_{0.8}\text{MnO}_3$	15 043
Y. Murakami, D. Shindo, H. Chiba, M. Kikuchi, and Y. Syono	
Magnon-magnon interactions in the spin-Peierls compound CuGeO_3	15 048
Claudius Gros, Wolfgang Wenzel, Andreas Fledderjohann, P. Lemmens, M. Fischer, G. Güntherodt, M. Weiden, C. Geibel, and F. Steglich	
Quantum nucleation in a ferromagnetic film placed in a magnetic field at an arbitrary angle	15 053
Gwang-Hee Kim	
^{57}Fe Mössbauer investigations on $(\text{Er,Pr})_2(\text{Fe,Al})_{17}$ compounds and their nitrides	15 060
K. G. Suresh and K. V. S. Rama Rao	
Magnetic phase diagram of $\text{CuGe}_{1-x}\text{Si}_x\text{O}_3$	15 067
M. Weiden, R. Hauptmann, W. Richter, C. Geibel, P. Hellmann, M. Köppen, F. Steglich, M. Fischer, P. Lemmens, G. Güntherodt, A. Krimmel, and G. Nieva	
Effects of in-chain and off-chain substitutions on spin fluctuations in the spin-Peierls compound CuGeO_3	15 076
P. Lemmens, M. Fischer, G. Güntherodt, C. Gros, P. G. J. van Dongen, M. Weiden, W. Richter, C. Geibel, and F. Steglich	
Size and structural dependence of the magnetic properties of rhodium clusters	15 084
P. Villaseñor-González, J. Dorantes-Dávila, H. Dreyssé, and G. M. Pastor	

Magnetization-reversal processes in an ultrathin Co/Au film	15 092
J. Ferré, V. Grolier, P. Meyer, S. Lemerle, A. Maziewski, E. Stefanowicz, S. V. Tarasenko, V. V. Tarasenko, M. Kisielewski, and D. Renard	
Evidence for a strain-induced variation of the magnetic moment in epitaxial Cu/Ni/Cu/Si(100) structures	15 103
Jaeyong Lee, G. Lauhoff, M. Tselepi, S. Hope, P. Rosenbusch, J. A. C. Bland, H. A. Dürr, G. van der Laan, J. Ph. Schillé, and J. A. D. Matthew	
Dipolar-induced planar anisotropy in ultrathin magnetic films	15 108
K. De'Bell, A. B. MacIsaac, I. N. Booth, and J. P. Whitehead	
Morphology and indirect exchange coupling in Fe/Cr/Fe(110) trilayers	15 119
Jörg Schwabenhausen, Tobias Dürkop, and Hans-Joachim Elmers	
Superfluidity and superconductivity	
Effective electron-electron interactions and the theory of superconductivity	15 130
C. F. Richardson and N. W. Ashcroft	
Effect of magnetic and nonmagnetic impurities on highly anisotropic superconductivity	15 146
A. A. Golubov and I. I. Mazin	
BCS to Bose crossover: Broken-symmetry state	15 153
Jan R. Engelbrecht, Mohit Randeria, and C. A. R. Sá de Melo	
Annular Josephson tunnel junctions in an external magnetic field: The dynamics	15 157
Nadia Martucciello, Carmine Soriano, and Roberto Monaco	
Flux-flow drag in coupled Josephson junctions	15 165
R. D. Parmentier, P. Barbara, G. Costabile, A. D'Anna, B. A. Malomed, and C. Soriano	
Superconducting proximity effects in magnetic metals	15 174
E. A. Demler, G. B. Arnold, and M. R. Beasley	
Resistive transitions of thin film superconductors in a magnetic field	15 183
M. H. Theunissen and P. H. Kes	
Dissipation in the superconducting mixed state in the presence of a small oscillatory magnetic-field component ...	15 191
M. P. Risse, M. G. Aikele, S. G. Doettinger, R. P. Huebener, C. C. Tsuei, and M. Naito	
Helicity modulus and fluctuating type-II superconductors: Elastic approximation and numerical simulations	15 197
Tao Chen and S. Teitel	
Observation of ^{105}Pd NMR and NQR signals in the heavy-fermion superconductor UPd_2Al_3	15 223
K. Matsuda, Y. Kohori, and T. Kohara	
High-pressure oxidation of the tetragonal $\text{La}_{1.5-x}\text{Ba}_{1.5+x-y}\text{Ca}_y\text{Cu}_3\text{O}_z$ superconductors	15 228
J. M. S. Skakle, E. E. Lachowski, R. I. Smith, and A. R. West	
Fractional vortices on grain boundaries: The case for broken time-reversal symmetry in high-temperature superconductors	15 239
D. B. Bailey, M. Sigrist, and R. B. Laughlin	
Intralayer and interlayer spin-singlet pairing and energy gap functions with different possible symmetries in high- T_c layered superconductors	15 248
Sudhanshu S. Jha and A. K. Rajagopal	
Vertex corrections and two-loop pairing potential in nearly antiferromagnetic Fermi liquids	15 261
P. Monthoux	
Coupling of order parameter and spin fluctuations in underdoped high- T_c cuprates	15 274
T. Dahm, D. Manske, and L. Tewordt	
Quasiparticle bound states and low-temperature peaks of the conductance of NIS junctions in d -wave superconductors	15 282
Yu. S. Barash, A. A. Svidzinsky, and H. Burkhardt	
Charge and spin excitations of insulating lamellar copper oxides	15 295
F. Lema, J. Eroles, C. D. Batista, and E. R. Gagliano	

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 55, NUMBER 22

1 JUNE 1997-II

Anisotropic Hall mobility in slightly overdoped $\text{YBa}_2\text{Cu}_3\text{O}_{6.92}$ from magnetoresistance and Hall-coefficient measurements	15 300
I. Terasaki, Y. Sato, and S. Tajima	
Magnetoelectric effect in $R_2\text{CuO}_4$ ($R = \text{Gd, Sm, and Nd}$)	15 304
H. Wiegmann, I. M. Vitebsky, A. A. Stepanov, A. G. M. Jansen, and P. Wyder	
Cumulative Author Index	15 312