PHYSICAL REVIEW B

For editorial and subscription correspondence, please see inside front cover
(ISSN: 0163-1829)

PERIODICALS
Postmaster send address changes to:
American Institute of Physics
Suite 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 64, NUMBER 9 ***CONTENTS*** **1 SEPTEMBER 2001-I**

Announcement: Electronic-First Publication and Article Numbers i

BRIEF REPORTS

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

Domain wall modeling of bcc to hcp reconstructive phase transformation in early transition metals *(4 pages)* 092101
Mahdi Sanati, A. Saxena, and T. Lookman

The effect of Nd concentration on the spectroscopic and emission decay properties of highly doped Nd:YAG ceramics *(4 pages)* 092102
V. Lupei, A. Lupei, S. Georgescu, T. Taira, Y. Sato, and A. Ikesue

Inhomogeneous, disordered, and partially ordered systems

Combination of XANES spectroscopy and molecular dynamics to probe the local structure in disordered systems *(4 pages)* 092201
Patrick J. Merkling, Adela Muñoz-Páez, Rafael R. Pappalardo, and Enrique Sánchez Marcos

Anisotropic thermal strain measurement at the thermochromic phase transition in a polydiacetylene crystal *(4 pages)* 092202
T. Ikehara, S. Shimada, H. Matsuda, and M. Tanaka

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

Dynamics and coherent control of high-amplitude optical phonons in bismuth *(3 pages)* 092301
M. F. DeCamp, D. A. Reis, P. H. Bucksbaum, and R. Merlin

A Raman scattering study of the antiferroelectric phase transition in $(Sr_{0.70}Ca_{0.30})TiO_3$ *(4 pages)* 092302
Sanjay Kumar Mishra, Rajeev Ranjan, Dhananjai Pandey, R. Ouillon, J.-P. Pinan-Lucarre, P. Ranson, and Ph. Pruzan

Magnetism

Soft-x-ray small-angle scattering as a sensitive probe of magnetic and charge heterogeneity *(4 pages)* 092401
J. B. Kortright, Sang-Koog Kim, G. P. Denbeaux, G. Zeltzer, K. Takano, and Eric E. Fullerton

Ab initio magnetocrystalline anisotropy calculations for Fe/W(110) and Fe/Mo(110) *(4 pages)* 092402
X. Qian and W. Hübner

Theory of spin-wave excitations of metallic *A*-type antiferromagnetic manganites *(4 pages)* 092403
G. Jackeli, N. B. Perkins, and N. M. Plakida

Electron spin resonance of a magnetic impurity in the resonant level model *(4 pages)* 092404
J. W. M. Pinto and H. O. Frota

Copyright 2001 by The American Physical Society

(Continued)

0163-1829(20010901)64:9;1-E

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 64, NUMBER 9** **1 SEPTEMBER 2001-I**

Site-dilution-induced antiferromagnetic long-range order in a two-dimensional spin-gapped Heisenberg antiferromagnet *(4 pages)* 092405
Chitoshi Yasuda, Synge Todo, Munehisa Matsumoto, and Hajime Takayama

Bond-operator mean-field theory of the half-filled Kondo lattice model *(4 pages)* 092406
Christoph Jurecka and Wolfram Brenig

Monte Carlo study of the critical behavior of the two-dimensional biquadratic planar rotator model *(4 pages)* 092407
B. V. Costa and A. S. T. Pires

Temperature dependent memory effects in the bilayer manganite $(La_{0.4}Pr_{0.6})_{1.2}Sr_{1.8}Mn_2O_7$ *(4 pages)* 092408
I. Gordon, P. Wagner, V. V. Moshchalkov, Y. Bruynseraede, M. Apostu, R. Suryanarayanan, and A. Revcolevschi

Magnetic susceptibility: An easy approach to the spin-reorientation transition *(4 pages)* 092409
S. Pütter, H. F. Ding, Y. T. Millev, H. P. Oepen, and J. Kirschner

Magnetic properties of Ni-doped Sr_2CuO_3 *(4 pages)* 092410
A. V. Mahajan and N. Venkataramani

Raising the Curie temperature in Sr_2FeMoO_6 double perovskites by electron doping *(4 pages)* 092411
J. Navarro, C. Frontera, Ll. Balcells, B. Martínez, and J. Fontcuberta

Spin and chirality autocorrelation functions of a Heisenberg spin-glass model *(4 pages)* 092412
F. Matsubara, T. Shirakura, and S. Endoh

Spin state and phase competition in $TbBaCo_2O_{5.5}$ and the lanthanide series $LBaCo_2O_{5+\delta}$ $(0 \leqslant \delta \leqslant 1)$ *(4 pages)* 092413
Hua Wu

Metal-insulator transition in the double perovskites *(4 pages)* 092414
A. A. Aligia, P. Petrone, J. O. Sofo, and B. Alascio

Superfluidity and superconductivity

ac-induced damping of a fluxon in a long Josephson junction *(4 pages)* 092501
M. V. Fistul, E. Goldobin, and A. V. Ustinov

Generation of a dc voltage by an ac magnetic field in type-II superconductors *(4 pages)* 092502
Grigorii P. Mikitik and Ernst Helmut Brandt

Coexistence of covalent and metallic bonding in the boron intercalation superconductor MgB_2 *(4 pages)* 092503
K. D. Belashchenko, M. van Schilfgaarde, and V. P. Antropov

Proximity to a nearly superconducting quantum critical liquid *(4 pages)* 092504
Qiang-Hua Wang and A. V. Balatsky

Dependence of T_c on hydrostatic pressure in superconducting MgB_2 *(4 pages)* 092505
T. Tomita, J. J. Hamlin, J. S. Schilling, D. G. Hinks, and J. D. Jorgensen

Effect of large amplitude fluctuations in the Ginzburg-Landau phase transition *(4 pages)* 092506
G. Alvarez and H. Fort

Hg L_3 edge absorption study of the $HgBa_2CuO_{4+\delta}$ superconductor *(4 pages)* 092507
Ziyu Wu, N. L. Saini, and A. Bianconi

Principle of valence bond amplitude maximization in cuprates: Superconductivity and spin and charge ordering *(4 pages)* 092508
G. Baskaran

Thickness independence of field-induced time-reversal symmetry breaking in $YBa_2Cu_3O_{7-\delta}$ thin films *(3 pages)* 092509
Y. Dagan and G. Deutscher

Tunneling spectroscopy of the normal-state gap in $(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}$ *(4 pages)* 092510
Toshikazu Ekino, Satoru Hashimoto, Tomo'aki Takasaki, and Hironobu Fujii

(Continued)

PHYSICAL REVIEW B THIRD SERIES, VOLUME 64, NUMBER 9 1 SEPTEMBER 2001-I

Quantum skyrmions and the destruction of long-range antiferromagnetic order in the high-T_c superconductors $La_{2-x}Sr_xCuO_4$ and $YBa_2Cu_3O_{6+x}$ *(4 pages)* 092511
Eduardo C. Marino and Marcello B. Silva Neto
Flux pinning mechanisms in $ErNi_2B_2C$ *(4 pages)* 092512
S. S. James, C. D. Dewhurst, S. B. Field, D. McK. Paul, Y. Paltiel, H. Shtrikman, E. Zeldov, and A. M. Campbell
Effect of electron irradiation on vortex dynamics in $YBa_2Cu_3O_{7-\delta}$ single crystals *(4 pages)* 092513
A. V. Bondarenko, A. A. Prodan, Yu. T. Petrusenko, V. N. Borisenko, F. Dworschak, and U. Dedek

ARTICLES

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

Particle-size dependence of phase stability and amorphouslike phase formation in nanometer-sized Au-Sn alloy particles *(6 pages)* 094101
H. Yasuda, K. Mitsuishi, and H. Mori
High-temperature structural evolution of RNiO$_3$ (R=Ho, Y, Er, Lu) perovskites: Charge disproportionation and electronic localization *(10 pages)* 094102
J. A. Alonso, M. J. Martínez-Lope, M. T. Casais, J. L. García-Muñoz, M. T. Fernández-Díaz, and M. A. G. Aranda
Structural instabilities in bis(4-chlorophenyl)sulfone derivatives studied by Raman spectroscopy and deuteron NMR *(8 pages)* 094103
J. Schneider, L. A. O. Nunes, and H. Panepucci
Structural, vibrational, and thermodynamic properties of Al-Sc alloys and intermetallic compounds *(14 pages)* 094104
M. Asta and V. Ozoliņš
Raman study of an electric-field-induced phase transition in $Pb(Zn_{1/3}Nb_{2/3})O_3$-8%$PbTiO_3$ *(5 pages)* 094105
Suenne Kim, In-Sang Yang, Jung-Kun Lee, and Kug Sun Hong
Finite-temperature dislocation interactions *(8 pages)* 094106
J. M. Rickman and R. LeSar
Theoretical study of a body-centered-tetragonal phase of carbon nitride *(6 pages)* 094107
Eunja Kim, Changfeng Chen, Thomas Köhler, Marcus Elstner, and Thomas Frauenheim
Structural forms of cubic BC_2N *(6 pages)* 094108
Hong Sun, Seung-Hoon Jhi, David Roundy, Marvin L. Cohen, and Steven G. Louie

Inhomogeneous, disordered, and partially ordered systems

Vibrational energy transfer and heat conduction in a one-dimensional glass *(9 pages)* 094201
David M. Leitner
Spin-dependent electronic transport properties of liquid manganese *(5 pages)* 094202
H. Zrouri, J. Hugel, A. Makradi, and J. G. Gasser
Scaling of the conductivity in icosahedral Al-Pd-Re metallic samples *(7 pages)* 094203
J. Delahaye and C. Berger
Breakdown of conformal invariance at strongly random critical points *(9 pages)* 094204
M. B. Hastings and S. L. Sondhi
Ultrasonic study of the nonequilibrium pressure-temperature diagram of H_2O ice *(16 pages)* 094205
E. L. Gromnitskaya, O. V. Stal'gorova, V. V. Brazhkin, and A. G. Lyapin
Theoretical prospective of quasicrystals as thermoelectric materials *(8 pages)* 094206
Enrique Maciá

(Continued)

PHYSICAL REVIEW B THIRD SERIES, VOLUME 64, NUMBER 9 1 SEPTEMBER 2001-I

Identification of the Brillouin zone planes in the Hume-Rothery matching rule and their role in the formation of the pseudogap from *ab initio* band calculations for the Al-Mg-Zn 1/1-1/1-1/1 approximant *(5 pages)* 094207
Hirokazu Sato, Tsunehiro Takeuchi, and Uichiro Mizutani
Formation of quasicrystals and amorphous-to-quasicrystalline phase transformation kinetics in $Zr_{65}Al_{7.5}Ni_{10}Cu_{7.5}Ag_{10}$ metallic glass under pressure *(10 pages)* 094208
J. Z. Jiang, Y. X. Zhuang, H. Rasmussen, J. Saida, and A. Inoue

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

Fundamental and second-order phonon processes in CdTe and ZnTe *(8 pages)* 094301
M. Schall, M. Walther, and P. Uhd Jepsen
Lattice dynamics calculations of the phonon spectra and thermodynamic properties of the aluminosilicate garnets pyrope, grossular, and spessartine $M_3Al_2Si_3O_{12}$ (M=Mg, Ca, and Mn) *(9 pages)* 094302
R. Mittal, S. L. Chaplot, and N. Choudhury
Dynamics of self-interstitial migration in Fe-Cu alloys *(5 pages)* 094303
J. Marian, B. D. Wirth, J. M. Perlado, G. R. Odette, and T. Diaz de la Rubia

Magnetism

Calculated x-ray dichroic signals and resonant Bragg diffraction structure factors for DyB_2C_2 *(7 pages)* 094401
Stephen W. Lovesey and Kevin S. Knight
Nature and number of distinct phases in the random-field Ising model *(9 pages)* 094402
Jairo Sinova and Geoff Canright
Magnetic 4*d* monoatomic rows on Ag vicinal surfaces *(8 pages)* 094403
V. Bellini, N. Papanikolaou, R. Zeller, and P. H. Dederichs
Magnetic structure of fcc Fe on Cu(111) *(6 pages)* 094404
P. Krüger
Experimental evidence of long-range magnetic order in the $c(2\times2)$ MnCu(100) surface alloy *(4 pages)* 094405
Y. Huttel, C. M. Teodorescu, F. Bertran, and G. Krill
$CsMn(Br_xI_{1-x})_3$: Crossover from an *XY* to an Ising chiral antiferromagnet *(6 pages)* 094406
R. Bügel, J. Wosnitza, H. v. Löhneysen, T. Ono, and H. Tanaka
Renormalization group and nonlinear susceptibilities of cubic ferromagnets at criticality *(6 pages)* 094407
D. V. Pakhnin and A. I. Sokolov
Finite-size effects in giant magnetoresistance: An *ab initio* calculation *(5 pages)* 094408
Frido Erler, Peter Zahn, and Ingrid Mertig
Theory of magnetoelectric effects at microwave frequencies in a piezoelectric/magnetostrictive multilayer composite *(6 pages)* 094409
M. I. Bichurin, I. A. Kornev, V. M. Petrov, A. S. Tatarenko, Yu. V. Kiliba, and G. Srinivasan
Absence of ferromagnetic order in ultrathin Rh deposits grown under various conditions on gold *(7 pages)* ... 094410
I. Chado, F. Scheurer, and J. P. Bucher
Pressure-induced breakdown of a correlated system: The progressive collapse of the Mott-Hubbard state in $RFeO_3$ *(9 pages)* 094411
W. M. Xu, O. Naaman, G. Kh. Rozenberg, M. P. Pasternak, and R. D. Taylor
Quantum disorder in the two-dimensional pyrochlore Heisenberg antiferromagnet *(6 pages)* 094412
S. E. Palmer and J. T. Chalker
Quenched spin tunneling and diabolical points in magnetic molecules. I. Symmetric configurations *(15 pages)* 094413
Anupam Garg
Quenched spin tunneling and diabolical points in magnetic molecules. II. Asymmetric configurations *(12 pages)* 094414
Anupam Garg

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 64, NUMBER 9** **1 SEPTEMBER 2001-I**

Structural and magnetic properties of UHV-evaporated Fe/Tb multilayers: Effect of the substrate temperature *(9 pages)* . . . 094415
F. Richomme, J. Teillet, A. Fnidiki, and W. Keune
Phase diagram of fragmented SU(2)-invariant spin ladders *(11 pages)* . . . 094416
Giuseppe Albertini
Decomposition of the relativistic hyperfine interaction operator: Application to the ferromagnetic alloy systems fcc Fe_xNi_{1-x}, fcc Fe_xPd_{1-x}, and fcc Co_xPt_{1-x} *(16 pages)* . . . 094417
M. Battocletti and H. Ebert
Adsorbate-induced demagnetization and restructuring of ultrathin magnetic films: CO chemisorbed on γ-Fe/Cu(100) *(12 pages)* . . . 094418
D. Spišák and J. Hafner
Competing magnetic anisotropies in the mixed rare-earth Laves hydrides *(7 pages)* . . . 094419
P. Cadavez-Peres, I. N. Goncharenko, and I. Mirebeau
Exchange-bias-induced double-shifted magnetization curves in Co biaxial films *(5 pages)* . . . 094420
Chih-Huang Lai, Yung-Hung Wang, Ching-Ray Chang, Jyh-Shinn Yang, and Y. D. Yao
Magnons and acoustic phonons in $Y_{3-x}Bi_xFe_5O_{12}$ *(10 pages)* . . . 094421
G. G. Siu, C. M. Lee, and Yulong Liu
Charge and spin ordering in $LiMn_2O_4$ *(8 pages)* . . . 094422
Izumi Tomeno, Yusuke Kasuya, and Yorihiko Tsunoda
Magnetic and $4f$ quadrupolar behavior of $Yb_2Co_3Al_9$ and the Kondo lattice compound $Yb_2Co_3Ga_9$ *(8 pages)* . . . 094423
S. K. Dhar, C. Mitra, P. Bonville, M. Rams, K. Królas, C. Godart, E. Alleno, N. Suzuki, K. Miyake, N. Watanabe, Y. Onuki, P. Manfrinetti, and A. Palenzona
Competing magnetic anisotropies in the magnetic and magnetoelastic properties of holmium-thulium superlattices *(8 pages)* . . . 094424
C. de la Fuente, J. I. Arnaudas, L. Benito, M. Ciria, A. del Moral, R. C. C. Ward, and M. R. Wells
Finite-temperature dynamical magnetic susceptibility of quasi-one-dimensional frustrated spin-$\frac{1}{2}$ Heisenberg antiferromagnets *(17 pages)* . . . 094425
Marc Bocquet, Fabian H. L. Essler, Alexei M. Tsvelik, and Alexander O. Gogolin
Magnetic phase transition in disordered Fe-Ni alloys studied by means of small-angle neutron scattering and three-dimensional analysis of the neutron depolarization *(10 pages)* . . . 094426
S. V. Grigoriev, S. A. Klimko, W. H. Kraan, S. V. Maleyev, A. I. Okorokov, M. Th. Rekveldt, and V. V. Runov
^{57}Fe Mössbauer spectroscopy of $HoErFe_{17-x}Ga_xC_y$ compounds *(8 pages)* . . . 094427
M. Venkatesan, U. V. Varadaraju, and K. V. S. Rama Rao
Magnetotransport properties through phase transitions in $R_2Fe_{14}B$ (R=Y, Nd, Tm) compounds *(6 pages)* . . . 094428
Jolanta Stankiewicz, Juan Bartolomé, and Satoshi Hirosawa
Exchange-coupling properties of $La_{1-x}Ca_xMnO_3$ ferromagnetic/antiferromagnetic multilayers *(10 pages)* . . . 094429
N. Moutis, C. Christides, I. Panagiotopoulos, and D. Niarchos
Anisotropy axis distribution and interactions in nanomagnet systems *(6 pages)* . . . 094430
H. Rubio, S. Suárez, S. Brown, and J. W. Harrell
Dynamical properties of phonons in the XY spin chain coupled with lattices *(5 pages)* . . . 094431
Fei Ye, Guo-Hui Ding, and Bo-Wei Xu
Crystal structure and magnetic properties of the unique Jahn-Teller system $^{154}Sm_{0.6}Sr_{0.4}MnO_3$ *(11 pages)* . . . 094432
I. D. Luzyanin, V. A. Ryzhov, D. Yu. Chernyshov, A. I. Kurbakov, V. A. Trounov, A. V. Lazuta, V. P. Khavronin, I. Larionov, and S. M. Dunaevsky
Orbital ordering and exchange interaction in the manganites *(13 pages)* . . . 094433
Hakim Meskine, Harald König, and Sashi Satpathy
Relativistic corrections in magnetic systems *(9 pages)* . . . 094434
A. Crépieux and P. Bruno

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 64, NUMBER 9** **1 SEPTEMBER 2001-I**

EPR study of Er^{3+} crystal-field and $^{165}Ho^{3+}$-Er^{3+} interactions in single crystals of $Ho_xY_{1-x}VO_4$ ($x=0.02-1.00$) *(8 pages)* 094435
Sushil K. Misra and Serguei I. Andronenko

Short-range order in the topological spin glass $(D_3O)Fe_3(SO_4)_2(OD)_6$ using *xyz* polarized neutron diffraction *(8 pages)* 094436
A. S. Wills, G. S. Oakley, D. Visser, J. Frunzke, A. Harrison, and K. H. Andersen

Coexistence of ferrimagnetic long-range order and cluster superparamagnetism in $Li_{1-x}Ni_{1+x}O_2$ *(8 pages)* . . . 094437
D. Mertz, F. Celestini, B. E. Vugmeister, H. Rabitz, and J. M. Debierre

Nonequilibrium magnetic dynamics in mechanically alloyed materials *(9 pages)* 094438
J. A. De Toro, M. A. López de la Torre, M. A. Arranz, J. M. Riveiro, J. L. Martínez, P. Palade, and G. Filoti

NMR study of the molecular nanomagnet $[Fe_8(N_3C_6H_{15})_6O_2(OH)_{12}]\cdot[Br_8\cdot 9H_2O]$ in the high-spin magnetic ground state *(9 pages)* 094439
Y. Furukawa, K. Kumagai, A. Lascialfari, S. Aldrovandi, F. Borsa, R. Sessoli, and D. Gatteschi

Superfluidity and superconductivity

Comparison of the in- and out-of-plane charge dynamics in $YBa_2Cu_3O_{6.95}$ *(10 pages)* 094501
E. Schachinger and J. P. Carbotte

Phase of biparticle localized states for the Cooper problem in two-dimensional disordered systems *(7 pages)* . 094502
J. Lages and D. L. Shepelyansky

Incoherent interplane conductivity of κ-(BEDT-TTF)$_2$Cu[N(CN)$_2$]Br *(8 pages)* 094503
J. J. McGuire, T. R$\tilde{o}\tilde{o}$m, A. Pronin, T. Timusk, J. A. Schlueter, M. E. Kelly, and A. M. Kini

Spin-mass vortex in ^{3}He-*B*: Order-parameter texture and NMR signature *(6 pages)* 094504
J. Kopu and M. Krusius

Zeeman-split mesoscopic transport through a normal-metal–quantum-dot–superconductor system with ac response *(10 pages)* 094505
Hong-Kang Zhao and Jian Wang

Depairing currents in the superconductor/ferromagnet proximity system Nb/Fe *(7 pages)* 094506
J. M. E. Geers, M. B. S. Hesselberth, J. Aarts, and A. A. Golubov

Bipolarons in the extended Holstein Hubbard model *(4 pages)* 094507
J. Bonča and S. A. Trugman

Influence of quantum critical fluctuations of circulating current order parameters on the normal-state properties of cuprates *(9 pages)* 094508
Hyun C. Lee and Han-Yong Choi

Two-stage crossover from thermal to quantum flux creep of dilute vortex ensembles in various high-T_c superconducting thin films *(5 pages)* 094509
Johan J. Åkerman, E. L. Venturini, M. P. Siegal, S. H. Yun, U. O. Karlsson, and K. V. Rao

Lattice dynamics of stoichiometric and nonstoichiometric La_2NiO_4 *(6 pages)* 094510
L. Pintschovius, W. Reichardt, M. Braden, G. Dhalenne, and A. Revcolevschi

Joule heating induced by vortex motion in a type-II superconductor *(5 pages)* 094511
Z. L. Xiao, E. Y. Andrei, P. Shuk, and M. Greenblatt

Alkali ions in superfluid ^{4}He and structure of the snowball *(10 pages)* 094512
M. Buzzacchi, D. E. Galli, and L. Reatto

Estimation of matrix-element effects and determination of the Fermi surface in $Bi_2Sr_2CaCu_2O_{8+\delta}$ systems using angle-scanned photoemission spectroscopy *(13 pages)* 094513
S. V. Borisenko, A. A. Kordyuk, S. Legner, C. Dürr, M. Knupfer, M. S. Golden, J. Fink, K. Nenkov, D. Eckert, G. Yang, S. Abell, H. Berger, L. Forró, B. Liang, A. Maljuk, C. T. Lin, and B. Keimer

Penetration depth measurements in MgB_2: Evidence for unconventional superconductivity *(3 pages)* 094514
C. Panagopoulos, B. D. Rainford, T. Xiang, C. A. Scott, M. Kambara, and I. H. Inoue

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 64, NUMBER 9** **1 SEPTEMBER 2001-I**

Raman transport and magnetization study of the $RuSr_2R_{2-x}Ce_xCu_2O_{10+\delta}$ ($R=Gd, Eu$) high-temperature superconducting cuprates *(8 pages)* 094515
G. V. M. Williams and M. Ryan

Irreversibility limits of the Abrikosov and Josephson flux dynamics in homogeneous and granular high-T_C superconductors *(7 pages)* 094516
V. N. Vieira, J. P. da Silva, and J. Schaf

Magnetohydrodynamics in type-II superconductors: Application to force-free configurations *(11 pages)* 094517
J. F. Artaud, D. Ciazynski, and A. Samain

Influence of Sr substitution on the structure, charge distribution, and critical temperature of $Y(Ba_{1-x}Sr_x)_2Cu_4O_8$ single crystals *(12 pages)* 094518
J. Karpinski, S. M. Kazakov, M. Angst, A. Mironov, M. Mali, and J. Roos

Dynamics of the magnetic flux trapped in fractal clusters of normal phase in a superconductor *(13 pages)* 094519
Yu. I. Kuzmin

Interaction of the spin-flop phase and superconductivity in $DyMo_6S_8$ single crystals *(6 pages)* 094520
K. Rogacki, E. Tjukanoff, and S. Jaakkola

London theory of the crossing vortex lattice in highly anisotropic layered superconductors *(14 pages)* 094521
S. E. Savel'ev, J. Mirković, and K. Kadowaki

Linear temperature dependence of lower critical field in MgB_2 *(4 pages)* 094522
S. L. Li, H. H. Wen, Z. W. Zhao, Y. M. Ni, Z. A. Ren, G. C. Che, H. P. Yang, Z. Y. Liu, and Z. X. Zhao

Cumulative Author Index iii