

Joint European Magnetic Symposia 2010

(JEMS 2010)

Journal of Physics: Conference Series Volume 303

**Krakow, Poland
23-28 August 2010**

**ISBN: 978-1-61839-047-9
ISSN: 1742-6588**

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2010) by the Institute of Physics
All rights reserved.

Printed by Curran Associates, Inc. (2011)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

1. PLENARY, SEMI-PLENARY, TUTORIALS

012001 Surface Ferromagnetism in Non-magnetic and Dilute Magnetic Oxides	1
<i>M Carmen Muñoz, Silvia Gallego, Nadezhda Sanchez</i>	
012002 Crossover from Non-Fermi Liquid to Fermi Liquid Behavior in Heavy Fermion Systems	11
<i>P Schlottmann</i>	
012003 Magnetism on a Mesoscopic Scale: Molecular Nanomagnets Bridging Quantum and Classical Physics	21
<i>Nikolaos P Konstantinidis, Alexander Sundt, Joscha Nehr Korn, Anna Machens, Oliver Waldmann</i>	

2. MAGNETIZATION PROCESSES, SPIN EXCITATIONS AND ULTRAFAST DYNAMICS

012004 Magnon Excitations in Ultrathin Fe Layers: The Influence of the Dzyaloshinskii-moriya Interaction	39
<i>Kh Zakeri, Y Zhang, J Prokop, T -H Chuang, W X Tang, J Kirschner</i>	
012005 Energy Thresholds in the Magnetic Vortex Core Reversal	46
<i>Sebastian Gliga, Yaowen Liu, Riccardo Hertel</i>	
012006 Magnetization Processes in a Dot of Ferrimagnetic Garnet Near the Compensation Temperature	53
<i>V Joch, P Molho, L Ranno</i>	
012007 Employing Magnonic Crystals to Dictate the Characteristics of Auto-oscillatory Spin-wave Systems	59
<i>A D Karenowska, A V Chumak, A A Serga, J F Gregg, B Hillebrands</i>	
012008 Spin Wave Propagation in Ferromagnetic Wires with an Arbitrary Field Direction	65
<i>Rémy Lassalle-Balier, Claude Fermon</i>	

3. HARD MAGNETIC MATERIALS AND MAGNETOCALORICS

012009 Structural and Magnetic Properties of NdFeB and NdFeB/Fe Films with Mo Addition	70
<i>M Urse, M Grigoras, N Lupu, H Chiriac</i>	

4. MAGNETIC HYDRIDES

012010 Structural and Magnetic Transformations in HoMn₂H_x Hydrides	76
<i>A Budziak, M Balanda, H Figiel, L Kobwicz-Chodak, Z Tarnawski</i>	
012011 Onset of Magnetism Stimulated by H Sbsorption in UNiAl-UF_eAl	83
<i>S Maskova, L Havela, S Danis, K Kothapalli, F Nasreen, A V Andreev</i>	

5. INTERFACE OF MAGNETIC THIN FILMS

012012 Characterization of U-based Thin Films: The UFe_{2+x} Case	88
<i>Nhu-T H Kim-Ngan, L Havela, A M Adamska, S Daniš, J Pešicka, J Macl, R Eloirdi, F Huber, T Gouder, A G Balogh</i>	
012013 Polarized Neutron Reflectivity Study of NiFe₂O₄ Films with Very Large Saturation Magnetization	96
<i>F Rigato, X Martí, J Fontcuberta</i>	
012014 Effect of Magnetic Film Thickness on the Spatial Resolution of Magnetic Force Microscope Tips	102
<i>Katsumasa Nagano, Kousuke Tobari, Mitsuru Ohtake, Masaaki Futamoto</i>	
012015 Epitaxial Growth of Permalloy Thin Films on MgO Single-Crystal Substrates	108
<i>Mitsuru Ohtake, Takahiro Tanaka, Katsuki Matsubara, Fumiyoshi Kirino, Masaaki Futamoto</i>	
012016 Preparation of Co(0001)_{hcp} and (111)_{fcc} Films on Single-Crystal Oxide Substrates	114
<i>Mitsuru Ohtake, Osamu Yabuhara, Yuri Nukaga, Masaaki Futamoto</i>	

6. MAGNONIC CRYSTALS

012017 One-dimensional Magnonic Circuits with Size-tunable Band Gaps and Selective Transmission	120
<i>B Djafari-Rouhani, H Al-Wahsh, A Akjouj, L Dobrzynski</i>	
012018 Spin Information Transfer and Transport in Hybrid Spinmechatronic Structures	130
<i>A D Karenowska, J F Gregg, A V Chumak, A A Serga, B Hillebrands</i>	

7. MAGNETISM OF METALS, ALLOYS AND INTERMETALLICS

012019 Magnetotransport in Tb₂Fe₁₇ Single Crystals.....	135
<i>Jolanta Stankiewicz, Konstantin P Skokov</i>	
012020 Anisotropy Study of Grain Oriented Steels with Magnetic Barkhausen Noise	141
<i>M F De Campos, M A Campos, F J G Landgraf, L R Padovese</i>	
012021 Magnetic and Magneto-volume Properties of Fe_xM_{100-x} Solid Solutions with M = Pd and Pt	147
<i>E Burzo, P Vlaic, D Eniu</i>	
012022 Neutron Diffraction Study of the Magnetic Order in NdMn₂Ge_{1.6}Si_{0.4}	153
<i>J L Wang, S J Campbell, J M Cadogan, A J Studer, R Zeng, S X Dou</i>	
012023 Magnetostriction and Transformation of Crystal Structure of Intermetallic Compound NdCO₂.....	159
<i>S A Nikitin, D Yu Karpenkov, I S Tereshina, Yu G Pastushenkov, T Palewski, J Cwik</i>	
012024 Magnetostriction in (Tb_{0.45}Dy_{0.55})_{1-x}Er_xCO₂ (x = 0.1, 0.2): High-field Investigation	163
<i>I Tereshina, G Politova, E Tereshina, J Cwik, S Nikitin, O Chistyakov, A Karpenkov, D Karpenkov, T Palewski</i>	
012025 Magnetic Properties and Magnetocaloric Effect in (Dy_{0.6}Er_{0.4})_{1-x}Gd_xCO₂ Multicomponent Compounds	169
<i>J Cwik, T Palewski, K Nenkov, J Lyubina, O Gutfleisch</i>	
012026 Neutron Powder Diffraction Determination of the Magnetic Structure of Nd₂Al.....	175
<i>J M Cadogan, M Avdeev, P Kumar, K Suresh, D H Ryan</i>	
012027 Mössbauer and Calorimetric Studies of Spin Reorientation Processes in Er_{2-x}Pr_xFe₁₄C.....	179
<i>A T Pedziwiatr, K Krawiec, B F Bogacz, S Wróbel, D Kaczorowski, J Przewoznik</i>	
012028 Magnetic and Structural Properties of Nanocrystalline PrCo₃.....	185
<i>K Younsi, V Russier, L Bessais, J-C Crivello</i>	
012029 Influence of Microstructural Constituents on the Hysteresis Curves in 0.2%C and 0.45%C Steels	191
<i>L F T Costa, F Giroto, R Baiotto, G Gerhardt, M F De Campos, F P Missell</i>	
012030 Magnetic Barkhausen Noise in Quenched Carburized Steels	197
<i>M F De Campos, F A Franco, R Santos, F S Da Silva, S B Ribeiro, J F C Lins, L R Padovese</i>	
012031 The Change of Anisotropy in TbNi(Al,In) Compounds Studied by Low Temperature X-ray Diffraction	203
<i>M Klicpera, P Javorský, S Daniš</i>	
012032 The Magnetostriction of the Intermetallic Compound ErCO₂ Near the Magnetic Phase Transition Paramagnetism-ferrimagnetism	209
<i>S A Nikitin, D Yu Karpenkov, A Yu Karpenkov, N I Nizhankovskii, T Palewski, K P Skokov</i>	

8. MOLECULAR MAGNETISM

012033 Spin Entanglement in Supramolecular Systems.....	213
<i>G Lorusso, F Troiani, V Bellini, A Ghirri, A Candini, S Carretta, P Santini, G Amoretti, W Wernsdorfer, G Timco, R E P Winpenny, M Affronte</i>	
012034 Studies of Critical Phenomena in Molecular Magnets by μSR Spectroscopy	223
<i>T Wasiutynski, M Balanda, M Czaplá, R Pelka, P M Zielinski, F L Pratt, T Korzeniak, R Podgajny, D Pinkowicz, B Sieklucka</i>	
012035 Magnetic Properties of Lanthanoid(III) Phthalocyaninato Triple-decker Complexes in an External Magnetic Field and Electronic Transport Properties for Molecular Spintronics.....	231
<i>K Katoh, K Yamamoto, T Kajiwará, J Takeya, B K Breedlove, M Yamashita</i>	
012036 Single-chain Magnet Features in 1D [MnR₄TPP][TCNE] Compounds	241
<i>Maria Balanda, Zbigniew Tomkowicz, Wolfgang Haase, Michal Rams</i>	
012037 Octacyanoniobate(IV)-based Molecular Magnets Revealing 3D Long-range Order	255
<i>R Pelka, D Pinkowicz, O Drath, M Balanda, M Rams, A Majcher, W Nitek, B Sieklucka</i>	

9. MAGNETOOPTICS OF NANOMAGNETS

012038 Intensity Magneto-optical Effect in Magnetoplasmonic Crystals	261
<i>V I Belotelov, I A Akimov, M Pohl, A N Kalish, S Kasture, A S Vengurlekar, A V Gopal, V A Kotov, D Yakovlev, A K Zvezdin, M Bayer</i>	
012039 Modeling and Optimization of Nonreciprocal Transmission Through 2D Magnetophotonic Crystal	270
<i>M Vanwolleghem, K Postava, L Halagacka, L Magdenko, P Beavillain, B Dagens</i>	
012040 Magnon-Photon Interactions for Quantum Key Distribution	276
<i>P Kumar, A Prabhakar</i>	
012041 Ferromagnetic Nanoparticle Films Studied by Optical and Magneto-optical Ellipsometry	282
<i>T Fördös, O Životský, K Postava, D Hrabovský, J Pištora, J Lancok, M Miglierini, M Klementová</i>	
012042 Magneto-optical and Optical Properties of Pt/Co GMR Films with Capping Layer	288
<i>T Ishibashi, M Naganuma, S Tang, T Honma, T Komatsu, K Machida, K Furukawa, K Aoshima, N Funabashi, K Kuga, N Shimidzu</i>	

10. NANOMAGNETISM

012043 Influence of a Semiconducting Matrix on the Magnetic Behaviour of Iron Oxide Nanoparticles	293
<i>P Granitzer, K Rumpf, M Venkatesan, L Cabrera, M P Morales, P Poelt, M Albu</i>	
012044 Self-assembled Strontium Ferrite on Au Nano-dot Arrays Using Rapid Thermal Annealing	299
<i>A Morisako, X Liu, A Kaewrawang, A Ghasemi</i>	
012045 Magnetic and Structural Characterization of Nanosized BaCo_xZn_{2-x}Fe₁₆O₂₇ Hexaferrite in the Vicinity of Spin Reorientation Transition	303
<i>A Pasko, F Mazaleyra, M Lobue, V Loyau, V Basso, M Küpferling, C P Sasso, L Bessais</i>	
012046 Growth of Magnetic Cobalt/chromium Nano-arrays by Atom-optical Lithography	309
<i>F Atoneche, D Malik, A Kirilyuk, A J Toonen, A F Van Etteger, Th Rasing</i>	
012047 Influence of Temperature and Mechanical Scratch on the Recorded Magnetization Stability of Longitudinal and Perpendicular Recording Media	315
<i>Katsumasa Nagano, Kousuke Tobari, Masaaki Futamoto</i>	
012048 Interacting Low Dimensional Nanostructures Within a Porous Silicon Template	321
<i>K Rumpf, P Granitzer, G Hilscher, P Poelt</i>	
012049 Estimate of the Anisotropy Field in Isotropic SmCo 2:17 Magnets with the Stoner-Wohlfarth CLC Model	327
<i>M F De Campos, S A Romero, F J G Landgraf, F P Missell</i>	
012050 Discrete and Resonance States in Graphene Near the Dirac Point	333
<i>M Inglot, V K Dugaev</i>	
012051 Magnetic Ground and Remanent States of Synthetic Metamagnets with Perpendicular Anisotropy	339
<i>N S Kiselev, U K Robler, A N Bogdanov, O Hellwig</i>	
012052 Morphology, Magnetic and Resonance Properties of Fe/MgO Multilayers	345
<i>A García-García, A Vovk, P Štrichovanec, J A Pardo, C Magén, V Golub, O Salyuk, P A Algarabel, M R Ibarra</i>	
012053 Preparation of hcp-Ni Epitaxial Films on Cr Underlayers	351
<i>Jumpei Higuchi, Mitsuru Ohtake, Yoichi Sato, Masaaki Futamoto</i>	

11. OTHER TOPICS – BIOMAGNETISM, DOMAIN WALLS, INSTRUMENTATION

012054 Magnetocardiography with GMR-based Sensors	356
<i>M Pannetier-Lecoœur, H Polovy, N Sergeeva-Chollet, G Cannies, C Fermon, L Parkkonen</i>	
012055 Low Field MRI with Magnetoresistive Mixed Sensors	361
<i>N Sergeeva-Chollet, H Dyvorne, J Dabek, Q Herreros, H Polovy, G Le Goff, G Cannies, M Pannetier-Lecoœur, C Fermon</i>	
012056 Domain Wall Dynamics in a Single CrO₂ Grain	367
<i>P Das, F Porrati, S Wirth, A Bajpai, Y Ohno, H Ohno, M Huth, J Müller</i>	

12. MAGNETIC PEROVSKITES AND MULTIFERROICS

012057 Parameters Controlling Magnetic Interactions in Perovskite Manganites	373
<i>B Dabrowski, J Mais, S Kolesnik, O Chmaissem</i>	

012058 Substrate-induced Magnetic Anisotropy in La_{0.7}Sr_{0.3}MnO₃ Epitaxial Thin Films Grown Onto (110) and (118) SrTiO₃ Substrates.....	379
<i>P Perna, C Rodrigo, E Jiménez, N Mikuszeit, F J Teran, L Méchin, J Camarero, R Miranda</i>	
012059 Magnetic Tunnels Junctions for All-oxide Spin Valves Devices.....	385
<i>A Solignac, R Guerrero, G Agnus, C Fermon, M Pannetier-Lecoœur, Ph Lecoœur</i>	
012060 Study of 2D Growth Stability of SrRuO₃ on SrTiO₃.....	391
<i>D Esteve, T Maroutian, V Pillard, G Agnus, Ph Lecoœur</i>	
012061 Finite-size Effects on the Magnetoelectric Response of Field-driven Ferroelectric/ferromagnetic Chains	395
<i>Chenglong Jia, Alexander Sukhov, Paul P Horley, Jamal Berakdar</i>	
012062 Influence of Magnetic Heterogeneous State on Magnetocaloric Effect in Sm_{0.55}Sr_{0.45}MnO₃.....	401
<i>L I Koroleva, D M Zashichirinskii, A S Morozov</i>	
012063 Noise and Electric Field Characterization of Irradiated SrTiO₃.....	405
<i>R Guerrero, A Solignac, M Pannetier-Lecoœur, C Fermon, P Auban-Senzier, L Lemberger, C Pasquier, Y Apertet, Ph Lecoœur</i>	
012064 Experimental Evidence for Ising Spin-Glass Transition in the YbCoGaO₄ Single Crystal.....	411
<i>R Szymczak, H A Dabkowska, A Dabkowski, G M Luke, P Aleshkevych, J Fink-Finowicki, H Szymczak</i>	
012065 Low Temperature Magnetic Behaviour of PZT-PFW Bulk Multiferroic Ceramics.....	416
<i>Damir Pajic, Zvonko Jaglicic, Marko Jagodic, Robert Blinc, Janez Hole, Marija Kosec, Zvonko Trontelj</i>	
012066 Hopping Conductivity of La_{1-x}Sr_xMn_{1-y}Fe_yO₃.....	421
<i>V S Zakhvalinskii, R Laiho, A V Lashkul, K G Lisunov, E Lähderanta, Yu S Nekrasova, P A Petrenko</i>	
012067 Low-field Magnetic Properties of La_{1-x}Sr_xMn_{1-y}Fe_yO₃.....	427
<i>V S Zakhvalinskii, R Laiho, A V Lashkul, K G Lisunov, E Lähderanta, Yu S Nekrasova, P A Petrenko</i>	
012068 Andreev Reflection and Spin Polarization of SrRuO₃ Thin Films on SrTiO₃ (111).....	433
<i>M Foerster, S Piano, F Rigato, C J Mellor, J Fontcuberta</i>	
012069 Magnetic Properties of the Magnetoelectric Compound Cu₂OSeO₃: Magnetization and 77SE NMR Study.....	439
<i>M Belesi, T Philippe, I Rousochatzakis, H C Wu, H Berger, S Granville, I V Shvets, J -Ph Ansermet</i>	
012070 Magnetocaloric Effect in Polycrystalline La Based Manganites Modified with Sr	445
<i>A Kolano-Burian, R Szymczak, R Kolano, H Szymczak, A Burian, L Hawelek, P Zackiewicz, M Czepelak</i>	
012071 Structural and Magnetic Characteristics of Manganites in La_{1-c+x}Sr_{c-x}Mn_{1-x}Ni_xO₃ System	452
<i>A M Smirnov, S Kh Estemirova, V K Karpasyuk</i>	
012072 Magnetic and Electrical Properties of La_{1-c}Sr_cMn_{1-x}Ga_xO₃ Manganites	457
<i>A G Badelin, A A Shchepetkin, S Kh Estemirova, V V Sorokin, V K Karpasyuk</i>	

13. MAGNETIC SEMICONDUCTORS AND INSULATORS

012073 New Trends in the Discussion of CMR-manganites and Isostructural Ferrites	463
<i>K Bärner, V Morsakov, I V Medvedeva</i>	
012074 Spontaneous Generation of Voltage in Single-crystal Sm_{0.55}Sr_{0.45}MnO₃ During Magneto-structural Phase Transition	469
<i>D M Zashirinskii, L I Koroleva, A S Morozov, R Szymczak</i>	
012075 Spin Glass State in the Spinel Families and Stability Conditions	474
<i>P Gusin, J Krok-Kowalski, J Warczewski, E Malicka</i>	
012076 Ab-Initio Calculation of the Basic Magnetic Properties of (Mn, Cr, V)-doped MgSiN₂.....	480
<i>J Rufinus</i>	
012077 Spin-driven Critical Fields in a Spinel Series Based on the Matrix ZnCr₂Se₄.....	484
<i>E Malicka, T Gron, A W Pacyna, A Gagor, T Mydlarz</i>	

14. MAGNETIC SHAPE MEMORY EFFECTS AND RELATED PHENOMENA

012078 Magneto-Mechanical Energy Conversion in Magnetic Shape Memory Alloys	491
<i>Herbert Schmidt</i>	
012079 Ni-Mn-Ga Single Crystals with Very Low Twinning Stress.....	501
<i>L Straka, H Hänninen, A Soroka, A Sozinov</i>	
012080 Influence of Grain Size and Training Temperature on Strain of Polycrystalline Ni₅₀Mn₂₉Ga₂₁ Samples.....	511
<i>C Hürrieh, S Roth, H Wendrock, M Pötschke, D Y Cong, B Rellinghaus, L Schultz</i>	
012081 Magnetic and Magnetoelastic Properties of Ni-Mn-Fa – Do They Need a Revision?.....	518
<i>Oleg Hezcko, Jaromír Kopeček, Dušan Majtás, Michal Landa</i>	

012082 Magnetic Refrigeration at Room Temperature – From Magnetocaloric Materials to a Prototype	526
<i>L Theil Kuhn, N Pryds, C R H Bahl, A Smith</i>	
012083 Domain Model for the Magnetic Shape-memory Effect in Non-modulated Tetragonal Ni-Mn-Ga	536
<i>A T Onisan, A N Bogdanov, U K Robler</i>	
012084 Monte Carlo Modeling of Exchange Bias Effect in Ni₅₀Mn_{25+x}Sb_{25-x} Heusler Alloys	542
<i>V Buchelnikov, V Sokolovskiy, I Taranenko, S Taskaev, P Entel</i>	

15. SOFT MAGNETIC MATERIALS

012085 Development of Magnetically Soft Microwires with GMI Effect	548
<i>V Zhukova, M Ipatov, A Zhukov</i>	
012086 the Effect of Compaction Parameters and Dielectric Composition on Properties of Soft Magnetic Composites	556
<i>Ling Xiao, Y H Sun, Lie Yu</i>	
012087 Magnetic and Thermomagnetic Studies of the Formation of the Rhometal Powders by High Energy Mechanical Milling	562
<i>I Chicinas, O Isnard, H Chiriac, F Popa, V Pop, C V Prica, B V Neamtu, T F Marinca</i>	
012088 Efficient Dynamic Magnetization Measurement in a Py/Ru/Py Trilayer	568
<i>A Bonneau-Brault, S Dubourg, V Dubuget, D Plessis, F Duverger</i>	
012089 Magnetic Properties of Co_{1-x}Ni_{x/2}Sr_{x/2}Fe₂O₄ (x = 0-1) Ferrite Nanoparticles Synthesized by Self-assembling Media of Reverse Micelles	574
<i>A Ghasemi, A Kaewrawang, X Liu, A Morisako</i>	
012090 α-Fe Nanopowder Synthesised in Low-pressure Microwave Plasma and Studied by Mössbauer Spectroscopy	580
<i>B David, N Pizúrová, O Schneeweiss, E Šantavá, O Jašek, V Kudrle</i>	
012091 The Influence of Assist Gas on Magnetic Properties of Electrotechnical Steel Sheets Cut with Laser	586
<i>Domínika Gaworska-Koniarnek, Bronisław Szubzda, Wiesław Wilczynski, Jerzy Drosik, Kazimierz Karas</i>	
012092 Subtractively Prepared Permalloy Nanowires for Spin-Torque Experiments	593
<i>Gesche Nahrwold, Sedat Dogan, Lars Bocklage, Toru Matsuyama, Ulrich Merkt, Guido Meier, Kouta Kondou, Gen Yamada, Teruo Ono</i>	
012093 Microstructure and Magnetic Properties of Fe and Fe-alloy Thin Films Epitaxially Grown on MgO(100) Substrates	600
<i>Katsuki Matsubara, Mitsuru Ohtake, Fumiyoshi Kirino, Masaaki Futamoto</i>	
012094 Magnetic Properties of FeCoC Thin Films Prepared by Various Sputtering Methods	606
<i>V Edon, S Dubourg, J Vernières, J -F Bobo</i>	

16. SPINTRONICS

012095 Monte Carlo Study of Temperature and Bias dependence of Spin Transport in GaAs	613
<i>Sheetal Kapoor, Gianni Marchetti, Fausto Rossi, Irene D'Amico</i>	
012096 Electric Detection of the Spin-seebeck Effect in Magnetic Insulator in the Presence of Interface Barrier	618
<i>K Uchida, T Ota, Y Kajiwara, H Umezawa, H Kawai, E Saitoh</i>	
012097 Magnetoresistance in CuPc Based Organic Magnetic Tunnel Junctions	622
<i>H Tokuc, K Oguz, F Burke, J M D Coey</i>	
012098 Annealing Effect on Low Frequency Noise in MgO-based Magnetic Tunnel Junctions	628
<i>J F Feng, Z Diao, J M D Coey</i>	
012099 Annealing Effect on Perpendicular [CoFe /Pd]_n Multilayers	634
<i>J F Feng, J M D Coey</i>	
012100 Magnetic Tunnel Junctions Using Co/Pt Multilayered Free Layers with Perpendicular Magnetic Anisotropy	638
<i>K Machida, K Furukawa, T Nakayama, N Funabashi, K Aoshima, K Kuga, H Kikuchi, T Ishibashi, N Shimidzu</i>	
012101 Simulation of Tunneling Magneto-resistance in Fe/MgO/Fe Junction	644
<i>K Shiiki</i>	
012102 Change in Co/Al-oxide/Co Tunneling Junction under Constant Voltage Stress	649
<i>K Shiiki, K Takeda, H Horikiri</i>	

012103 Temperature Dependence of Exchange Bias in Co/FeMn-structure Induced by Heating and Cooling in Magnetic Field	654
<i>I O Dzhun, S A Dushenko, N G Chechenin, E A Konstantinova</i>	
012104 The Dependence of Magnetic Properties of Co/FeMn Bilayer Structure on the Magnitude of Magnetic Field Applied During the Layer Deposition	660
<i>I O Dzhun, S A Dushenko, N G Chechenin, E A Konstantinova</i>	

17. STRONGLY CORRELATED ELECTRON SYSTEMS, MAGNETISM AND SUPERCONDUCTIVITY

012105 Chiral Skyrmionic Matter in Non-centrosymmetric Magnets	666
<i>Ulrich K Robler, Andrei A Leonov, Alexei N Bogdanov</i>	
012106 Easy Axis Switching in Magnetite	678
<i>Z Kakol, G Król, W Tabis, T Kolodziej, A Wisniewski, H Stepankova, V Chlan, J Kusz, Z Tarnawski, A Kozłowski, J M Honig</i>	
012107 Non-collinear Ferromagnetic Luttinger Liquids	691
<i>N Sedlmayr, S Eggert, J Sirker</i>	
012108 Exchange Interaction As the Source of Pairing in Correlated Electron Systems: A Brief Overview	697
<i>Jozef Spalek</i>	
012109 Grüneisen Ratio in Kondo-lattice Compound CeRhSn	713
<i>Andrzej Slebarski</i>	
012110 Entanglement and Position-space Information Entropy: Hubbard Model As an Approximation to Nanostructure Systems	717
<i>J P Coe, V V França, I D'Amico</i>	
012111 Interorbital Pairs in Clean and Impure Superconductors	721
<i>Anna Ciechan, Karol I Wysokinski</i>	
012112 Local Properties of an Inhomogeneous Two-component Correlated Superconductor	727
<i>Jaromir Krzyszczak, Karol Izidor Wysokinski</i>	
012113 Quasiclassical Eilenberger Approach to the Vortex State in Pnictide Superconductors	733
<i>P Belova, M Safonchik, K B Traito, E Lähderanta</i>	
012114 Coherence Length of Magnetic Field in the Mixed State of Type-II Superconductors	739
<i>P Belova, M Safonchik, K B Traito, E Lähderanta</i>	
012115 Frustrated Magnetic Structure of Y-substituted CePdAl Studied by Powder Neutron Diffraction	745
<i>Petr Cermák, Tommy Hofmann, Pavel Javorský</i>	
012116 Calculation of the Electronic Structure of the Mott Insulator NiO, LaMnO₃ and of GaN:Mn	749
<i>R J Radwanski, Z Ropka</i>	
Author Index	