



Strasbourg (France)

E-MRS 2005 Spring Meeting
May 31 – June 3, 2005

SYMPOSIUM B

Spintronics

Symposium Organizers :

Alain Schuhl, Université Nancy, France (Chairman)

Agnès Barthélemy, UMR Thales CNRS, Orsay, France

Théo Rasing, University of Nijmegen, The Netherlands

J.A.C. Bland, University of Cambridge, U.K.

Papers to be published in
Materials Science and Engineering B

E-MRS 2005 Spring Meeting

SYMPOSIUM B

Tuesday, May 31, 2005
Mardi 31 mai 2005

Morning
Matin

Session I : Semiconductors I

Session chairs : W. Van Roy

- B-I.01** 9:00 -Invited- SPINTRONIC NANOSTRUCTURES
W. Molenkamp, Physikalisches Institut (EP3), Universität Würzburg, Am Hubland, 97074 Würzburg, Germany
- B-I.02** 9:40 SPIN POLARIZED TRANSPORT PROPERTIES OF GaMnAs/GaxIn(1-x)As/GaMnAs JUNCTIONS
M. Elsen, H. Jaffrès, J.-M. George, A. Fert, Unité Mixte de Physique CNRS-THALES, THALES Research & Technology, Domaine de Corbeville, 91404 Orsay Cedex, France, A. Lemaître, Laboratoire de Physique et de Nanostructures, Route de Nozay, 91460 Marcoussis, France
- B-I.03** 10:00 BIAS-DEPENDENT SPIN RELAXATION IN SPIN-LED
C.A.C. Bosco(a), D. Snouck(a), P. Van Dorpe(b), W. Van Roy(b) and B. Koopmans(a), (a)Dept. of Appl. Phys., cNM, Eindhoven University of Technology, P.O. Box 513, 5600 MB Eindhoven, The Netherlands, (b)IMEC, Kapeldreef 75, 3001 Leuven, Belgium
- B-I.04** 10:20 EXCHANGE BIASING AND TRANSITION TEMPERATURE CONTROL OF THE CANONICAL FERROMAGNETIC SEMICONDUCTOR (GA,MN)AS
P. Schiffer, K.F. Eid, M.B. Stone, O. Maksimov, K.C. Ku, B.L. Sheu, W. Fadgen, N. Samarth, T. Shih, and C. Palmstrom
- 10:40 **BREAK**

Session II : Single crystal and epitaxial films

Session chairs : D. Stoeffler

- B-II.01** 11:00 -Invited- SPIN FILTERING EFFECTS IN SINGLE-CRYSTAL MAGNETIC TUNNEL JUNCTIONS
C. Tiusan, J. Faure-Vincent, M. Sicot, M. Hehn, C. Bellouard, F. Montaigne, S. Andrieu, A.Schuhl, Laboratoire de Physique des Matériaux, BP 239, 54506 Vandoeuvre lès Nancy, France
- B-II.02** 11:40 SINGLE-CRYSTALLINE Fe/Cr/Fe/MgO/Fe MAGNETO-TUNNEL JUNCTIONS GROWN ON GaAS(001)
J. Grabowski, M. Przybylski, W. Wulfhekel, J. Kirschner, Max-Planck Institut für Mikrostrukturphysik, 06120 Halle, Germany and H. Brückl, Fakultät für Physik, Universität Bielefeld, 33501 Bielefeld, Germany
- B-II.03** 12:00 TUNABLE TRANSPORT PROPERTIES OF NiFe₂O₄ EPITAXIAL THIN FILMS: INTEGRATION IN MAGNETIC TUNNEL JUNCTIONS AND SPIN FILTER
U. Lüders(a,b), M. Bibes(c,d), K. Bouzehouane(c), S. Fusil(e), J.P. Contour(c), A. Barthélémy(c), J.F. Bobo(a), J. Fontcuberta(b) and A. Fert(c), (a)Laboratoire de Nanomagnetisme et Hyperfréquence Onera-CNRS, Toulouse, France, (b)Institut de Ciencia de Materials de Barcelona, Bellaterra, Spain, (c)UMR CNRS-Thales-Université Paris Sud, Orsay, France, (d)Institute d'Electronique Fondamental, Orsay, France, (e)Université d'Evry, Evry, France
- B-II.04** 12:20 SELF-CONSISTENT (CPA) THEORY OF INTERFACIAL SCATTERING AT DISORDERED INTERFACES IN LAYERED NANOSTRUCTURES
Victor F. Los, Institute of Magnetism, National Academy of Sciences of Ukraine, Kiev, Ukraine
- 12:40 **LUNCH**

Tuesday, May 31, 2005
Mardi 31 mai 2005

Afternoon
Après-midi

Session III : Poster

14:00 – 15:40 **POSTER SESSION 1**

Session IV : Metallic layers and multilayers

Session chairs : A. Barthelemy

- B-IV.01** 15:40 -Invited- SPIN POLARISED HOT-ELECTRON TRANSPORT IN SPIN-VALVE TRANSISTOR STRUCTURES FROM FIRST PRINCIPLES
M. Talanana, M. Zwierzycki, P.J. Kelly, Faculty of Science and Technology and MESA⁺ Research Institute, University of Twente, P.O. Box 217, 7500 AE Enschede, The Netherlands and G.E.W. Bauer, Kavli Institute of NanoScience, Delft University of Technology, Lorentzweg 1, 2628 CJ Delft, The Netherlands
- B-IV.02** 16:20 -Invited- EXPERIMENTAL EVIDENCE OF THE SPIN-DEPENDENCE OF ELECTRONS REFLECTIONS IN EPITAXIAL MAGNETIC MULTILAYERS
E. Snoeck, X Gatel, CEMES-CNRS, BP4347, 31055 Toulouse, France, J.-B. Moussy, A. Bataille, M. Pannetier, M. Gautier-Soyer, DSM/DRECAM/CAPMAG, CEA Saclay, 91191 Gif-sur-Yvette, France
- B-IV.03** 17:00 SPIN PRECESSION OF ELECTRONS REFLECTED FROM A FERROMAGNETIC SURFACE
L. Joly, J.K. Ha, W. Weber, Institut de Physique et Chimie des Matériaux de Strasbourg, 23 rue du Loess, BP 43, 67034 Strasbourg Cedex 2, France
- B-IV.04** 17:20 HOT-ELECTRON SPIN-TRANSPORT THROUGH TANTALUM FILMS AND INTERFACES
H. Gokcan, J.C. Lodder, R. Jansen, MESA+ Institute for Nanotechnology, University of Twente, The Netherlands
- B-IV.05** 17:40 CURRENT-INDUCED MAGNETIZATION SWITCHING IN EPITAXIAL MAGNETIC NANOPILLARS
D.E. Bürgler(a), H. Dassow(a), R. Lehndorff(a), M. Buchmeier(a), P. Grünberg(a), A. van der Hart(b), C.M. Schneider(a), (a)Institut für Festkörperforschung, Forschungszentrum Jülich GmbH, Germany, (b)Institut für Schichten und Grenzflächen, Forschungszentrum Jülich GmbH, Germany

POSTER SESSION 1
Tuesday, June 1, 2005
14:00 – 15:40

- B-III/P01** ENDOHEDRAL METALLOFULLERENES: STABILIZATION, CLUSTERING AND SPIN-LEAKAGE
V.K. Koltover, Institute of Problems of Chemical Physics, RAS, Chernogolovka, Moscow Region, 142432, Russia
- B-III/P02** MAGNETIC AND OPTICAL PROPERTIES OF Zn_{1-x}Mn_xO THIN FILMS PREPARED BY PULSED LASER DEPOSITION
Kyung Ah Jeon(a), Hyun Woo Chung(a), W.Y. Shim(b), W.Y. Lee(b) and Sang Yeol Lee(a), (a)Department of Electrical and Electronic Engineering, Yonsei University, 134, Shinchon-dong, Seodaemoon-ku, 120-749, Seoul, Korea, (b)Department of Material Science Engineering, Yonsei University, 134, Shinchon-dong, Seodaemoon-ku, 120-749, Seoul, Korea
- B-III/P03** TEMPERATURE DEPENDENCE OF ORTHOGONAL PINNING OF TWO FERROMAGNETIC LAYERS IN A SYNTHETIC ANTIFERROMAGNETIC SPIN-VALVE
W. Zhang, X.X. He, Q. Liang, H.Q. Li and X.F. Hu Center for Nanomaterial and Nanodevice, School of Physical Science, Hefei University of Technology, Hefei, Anhui 23009, PR.China
- B-III/P04** DOMAIN IMAGING, MOKE AND AMR IN CoFeB FILMS FOR MRAM APPLICATIONS
J.M. Teixeira, R.F.A. Silva, J. Ventura, J.P. Araujo, J.B. Sousa, IFIMUP, Rua do Campo Alegre, 678, 4169-007, Porto, Portugal, S. Cardoso, R. Ferreira and P.P. Freitas, INESC-MN, Rua Alves Redol, 9-1, 1000-029 Lisbon, Portugal
- B-III/P05** Si INTEGRATION OF GUIDED NI ARRAYS
Cornelis H. de Groot, Michail E. Kiziroglou, Alexander A. Zhukov, Mamdouh Abdelsalam, Xiaoli Li, Philip N. Bartlett, Peter A.J. de Groot, University of Southampton, Highfield, SO17 1BJ Southampton, U.K.
- B-III/P06** EFFECTS OF HIGH-TEMPERATURE-ANNEALING ON MAGNETIC PROPERTIES OF (Zn_{1-x}Mn_x)O THIN FILMS GROWN BY RF MAGNETRON SPUTTERING
Sejoon Lee(a), Hye Sung Lee(a), Sun Jae Hwang(a), Duck Nam Kim(a), Chang Seok Han(a), Doo Soo Kim(a), Deuk Young Kim(a), and Youn Hwan Lee(b), (a)Department of Semiconductor Science, Dongguk University, Seoul 100-715, Korea, (b)Department of Information and Communication Engineering, Dongguk University, Kyungju 780-714, Korea
- B-III/P07** MAGNETIC SWITCHING IN THE PEROVSKITE POINT CONTACT CONSTRICTIONS
J. Baszynski, Institute of Molecular Physics, Polish Academy of Sciences, Smoluchowskiego 17, 60-179 Poznan, Poland
- B-III/P08** INFLUENCE OF THE ANTIFERROMAGNETIC COUPLING IN DYNAMIC SWITCHING OF PERMALLOY NANOPILLARS
M. Carpentieri, G. Finocchio, B. Azzarboni, Dipartimento di Fisica della Materia e Tecnologie Fisiche Avanzate, University of Messina, Salita Sperone 31, 98166 S. Agata, Messina, Italy, L. Torres, E. Martinez, L. Lopez-Diaz, Departamento de Fisica Aplicada. Universidad de Salamanca. Plaza de la Merced s/n, 37008 Salamanca, Spain
- B-III/P09** REALIZATION OF A GROUP-IV BASED DMS BY ION IMPLANTATION OF Mn IN Ge
L. Ottaviano(a), M. Passacantando(a), F. D'Orazio(a), F. Lucari(a), S. Picozzi(a), A. Continenza(a), A. Verna(b), A. Gasparotto(b), M. Berti(b), R. Gunnella(c), G. Impellizzeri(d), F. Priolo(d), (a)Laboratorio CASTI-CNR & Dipartimento di Fisica, Università dell'Aquila, Via Vetoio 10, 67010 Coppito L'Aquila, Italy, (b)INFM and Università di Padova, Dipartimento di Fisica, Via F. Marzolo 8, 35131 Padova, Italy, (c)Dipartimento di Fisica – Unità INFM, Università di Camerino, 62032 Camerino, Italy, (d)MATIS-INFM and Dipartimento di Fisica e Astronomia, Università di Catania, Via S. Sofia 64, 95123 Catania, Italy
- B-III/P10** MAGNETIC PROPERTIES AND SPIN POLARIZATION OF Co₂MnSi HEUSLER ALLOY THIN FILMS EPITAXIALLY GROWN ON GaAs(001)
W.H. Wang, M. Przybylski, W. Kuch, J. Barthel, J. Kirschner, Max-Planck-Institut für Mikrostrukturphysik, 06120 Halle, Germany
- B-III/P11** ELECTRONIC STRUCTURE AND HALF-METALLIC PROPERTY OF Mn DOPED SiC DILUTED MAGNETIC SEMICONDUCTOR
Yoon-Suk Kim, Department of Ceramic Engineering, Hanyang University, Seoul 133-791, Korea, Yong-Chae Chung, Department of Ceramic Engineering, Hanyang University, Seoul 133-791, Korea, and Hanchul Kim, Materials Evaluation Center, Korea Research Institute of Standards and Science, Daejeon 305-600, Korea
- B-III/P12** POLARON PERCOLATION MECHANISM IN GeMn DILUTED MAGNETIC SEMICONDUCTOR ALLOYS
N. Pinto, L. Morresi, M. Ficcadenti, R. Murri, INFM-Dipartimento di Fisica, Università di Camerino, Via Madonna delle Carceri, 62032 Camerino, Italy, F. D'Orazio, F. Lucari, INFM-Dipartimento di Fisica, Università di L'Aquila, Via Vetoio 10 Loc. Coppito, 60100 L'Aquila, Italy
- B-III/P13** MAGNETIC ANISOTROPY IN Fe(111) THIN FILMS : THE ROLE OF THE CAPPING LAYER
R. Stephan, D. Berling, S. Zabrocki, A. Mehdaoui, P. Wetzel, G. Gewinner, Laboratoire de Physique et de Spectroscopie Electronique - CNRS UMR 7014, Faculté des Sciences et Techniques - Université de Haute Alsace, 4 rue des frères Lumière, 68093 Mulhouse Cedex, France

- B-III/P14** Mn INCORPORATION AND MAGNETIC PROPERTIES OF $\text{Ga}_{(1-x)}\text{Mn}_x\text{P}$ FILMS GROWN ON GAP (001)
S. Lambert-Milot(a), M. Garcia Hernandez(b), A. de Andres(b), C. Lacroix(a), P. Desjardins(a), D. Ménard(a), and R.A. Masut(a,b), (a)Regroupement québécois sur les matériaux de pointe (RQMP), Département de Génie Physique, École Polytechnique de Montréal, CP 6079 succ. Centreville, Montréal, PQ, H3C 3A7, Canada, (b) Instituto de Ciencia de Materiales de Madrid Consejo Superior de Investigaciones Científicas Cantoblanco, 28049 Madrid, España
- B-III/P15** FORMATION OF Fe_3O_4 FILMS BY ANNEALING Fe- Fe_2O_3 MULTILAYER IN VACUUM
A. Iljinas, J. Dudonis
- B-III/P16** MAGNETIC PROPERTIES OF EXCHANGE BIASED MICRON-SIZED TMR JUNCTIONS
C. Bilzer(a), T. Devolder(a), C.K. Lim(b), J. Wecker(c), L. Baer(c) and C. Chappert(a), (a)Institut d'Electronique Fondamentale, UMR 8622 CNRS, Université Paris Sud, 91405 Orsay, France, (b)HDD Program Team, Samsung Advanced Institute of Technology, P.O.Box 111, Suwon 440-600, South Korea, (c)Siemens AG, CT MM 1, Paul-Gossen-Strasse 100, 91052 Erlangen, Germany
- B-III/P17** EFFECT OF THE NANOSTRUCTURATION OF CoPt FILMS ON THE MAGNETIC PROPERTIES
M. Abes, M. Rastei, A. Carvalho, G. Schmerber, E. Beaurepaire, A. Dinia, and V. Pierron-Bohnes Institut de Physique et de Chimie des Matériaux de Strasbourg, (UMR 7504 du CNRS), ULP-ECPM, 23 rue du Loess, BP43, 67034 Strasbourg Cedex2, France
- B-III/P18** STRUCTURE AND MAGNETISM OF ORDERED AND DISORDERED BIMETALLIC Co-Pt NANOPARTICLES
C. Andreazza-Vignolle, N. Bouet, P. Andreazza, Centre de Recherche sur la Matière Divisée, UMR 6619, CNRS-Université d'Orléans, 1B rue de la Férollerie, 45071 Orléans Cedex 2, France and F. Bertran, Synchrotron SOLEIL, Saint-Aubin - BP 48, 91192 Gif-sur-Yvette Cedex, France
- B-III/P19** STRUCTURE AND MAGNETIC PROPERTIES OF LOW-TEMPERATURE PLD MAGNETITE THIN FILMS
M.L. Paramês(a,e), J. Mariano(b,e), Z. Viskadourakis(c,f), N. Popovici(a,e), M.S. Rogalski(d,e), J. Giapintzakis(c,f,g), O. Conde(a,e), (a)Dept. of Physics, Faculty of Sciences, University of Lisboa, 1749-016 Lisboa, Portugal, (b)Faculty of Sciences and Technology, University of Algarve, 8000-117 Faro, Portugal, (c)Institute of Electronic Structure and Laser, FORTH, 71110 Heraklion, Crete, Greece, (d)Dept. of Physics, Instituto Superior Técnico, 2780-990 Taguspark Oeiras, Portugal, (e)Institute of Materials and Surface Science and Engineering, 1749-001 Lisboa, Portugal, (f)Dept. of Materials Science and Technology, University of Crete, 71003 Heraklion, Crete, Greece, (g)Dept. of Physics, University of Cyprus, 1678 Nicosia, Cyprus
- B-III/P20** REVERSAL PROCESSES OF CoPt₃ IN SUB-NS MAGNETIC PULSES
J. Vénuat, S. Boukari, D. Spor, E. Beaurepaire, IPCMS/GEMMe, 23 rue du Loess BP 43, 67034 Strasbourg Cedex, France, A. Laraoui, J.Y. Bigot, IPCMS/GONLO, 23 rue du Loess, BP 43, 67034 Strasbourg Cedex, France
- B-III/P21** SELF-ORGANIZED GROWTH OF NANOMETRIC PYRAMIDS IN FERRIMAGNETIC EPITAXIAL CoCr₂O₄ FILMS
U. Lüders, F. Sánchez, J. Fontcuberta Institut de Ciència de Materials de Barcelona, CSIC, Campus U.A.B., 08193 Bellaterra, Spain
- B-III/P22** CROSS SECTIONAL SCANNING TUNNELLING MICROSCOPY STUDY OF $\text{Ga}_{(1-x)}\text{Mn}_x\text{As}$
Alessandro Stroppa and Maria Peressi, Dipartimento di Fisica Teorica, Università di Trieste, Strada Costiera 11, 34014 Trieste, Italy and INFM Democritos National Simulation Center, Trieste, Italy
- B-III/P23** MAGNETIC PROPERTIES OF A NEW SPINTRONIC MATERIAL – GaN:Fe
A. Bonanni(a), H. Przybylinska(a,b), M. Kiecana(b), M. Sawicki(b), T. Dietl(b), H. Malissa(a), C. Simbrunner(a), K. Rumpf(c), P. Granitzer(c), H. Krenn(c) and W. Jantsch(a), (a)Institut für Halbleiter- und Festkörper Physik, Johannes Kepler Universität, 4040 Linz, Austria, (b)Institute of Physics, Polish Academy of Sciences, 02668 Warsaw, Poland, (c)Inst. Experimentalphysik, Karl-Franzens-Univ., 8010 Graz, Austria
- B-III/P24** TEMPORAL RESOLUTION OF SPIN-DEPENDENT RECOMBINATION IN DISORDERED SILICON UNDER LOW MAGNETIC FIELDS
V.V. Kislyuk, V.P. Kravchuk, O.I. Kozonushchenko, O.V. Tretyak
- B-III/P25** XAFS STUDY ON $\text{Sr}_2\text{FeMo}_{1-x}\text{W}_x\text{O}_6$ DOUBLE PEROVSKITE SERIES
F. Bardelli(a,b), C. Meneghini(a,b), S. Mobilio(a,b,c), D.D. Sarma(d,e), (a)Dip. di Fisica, Univ. di "Roma Tre", Via della vasca navale 84, 00146 Roma, Italy, (b)INFM-GILDA c/o ESRF Grenoble, France, (c)INFN Laboratori Nazionali di Frascati, Italy, (d)Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore-560012 India, (e)Jawaharlal Nehru Centre for Advanced Research, Bangalore-560012 India
- B-III/P26** ALLOYING, CO-DOPING, AND ANNEALING EFFECTS ON THE MAGNETIC AND OPTICAL PROPERTIES OF MOCVD-GROWN GAMNN
Matthew H. Kane(a,b), Martin Strassburg(a,d), Ali Asghar(a), Jayantha Senawiratne(d), Christopher J. Summers(b), Q. Song(c), Z. John Zhang(c), Nikolaus Dietz(d), and Ian T. Ferguson(a), (a)Georgia Institute of Technology, School of Electrical and Computer Engineering, Atlanta GA 30332, USA, (b)Georgia Institute of Technology, School of Materials Science and Engineering, Atlanta GA 30332, USA, (c)Georgia Institute of Technology, School of Chemistry and Biochemistry, Atlanta GA 30332, USA, (d)Georgia State University, Department of Physics and Astronomy, Atlanta GA 30303, USA

- B-III/P27** NEW MATERIALS FOR SPINTRONICS: FROM FERROMAGNETIC SEMICONDUCTORS TO CHALCOGENIDES SPINELS
 Marco Liberati(a,b), Alexandre Lussier(a), Johnathon Holroyd(a,b), Yayoi Takamura(c), Rajesh Chopdekar(d), Lisa M. B. Alldredge(c), Janell Neulinger(e), Joanna Bettinger(c), Angelica M. Stacy(e), Yuri Suzuki(c), Yves U. Idzerda(a), (a)Department of Physics, Montana State University, Bozeman, MT 59717, USA (b)Lawrence Berkeley National Laboratory, Berkeley CA 94720, USA, (c)Department of Materials Science and Engineering, UC Berkeley, Berkeley CA 94720-1760, USA, (d)Department of Materials Science and Engineering, Cornell University, Ithaca NY 14853-1501, USA, (e)Department of Chemistry, UC Berkeley, Berkeley CA 94720, USA
- B-III/P28** NONSTOICHIOMETRIC HEUSLER ALLOYS - POSSIBLE HALF-METALLIC FERROMAGNETS FOR SPIN DEVICE APPLICATIONS
 C.E.A. Grigorescu, I.C. Vasiliu, INOE 2000 and S.A. Manea, NIMP, Comuna Magurele, Romania, O. Monnereau, L. Tortet, R. Kechawarz, MADIREL and R. Notonier, SCM, Universite de Provence, Marseille, France, M. Autric and E. Valerio, IRPHE, Universite de la Mediterranee, Marseille, France, W. Branford, ICSTM, London, United Kingdom, A. Bittar and N. Strickland, IRL, Lower Hutt, New Zealand, H.J. Trodahl, VUW, Wellington, New Zealand
- B-III/P29** MAGNETIC ANISOTROPY IN Fe(111) THIN FILMS : THE ROLE OF THE CAPPING LAYER
 D. Berling, R. Stephan, S. Zabrocki, A. Mehdaoui, G. Gewinner, P. Wetzel, Laboratoire de Physique et de Spectroscopie Electronique UMR 7014, Université de Haute Alsace - FST, 4 rue des frères Lumière, 68093 Mulhouse Cedex, France
- B-III/P30** STRUCTURAL, MAGNETIC AND ELECTRICAL PROPERTIES OF NiMnSb THIN FILMS GROWN ON InSb BY PULSED-LASER DEPOSITION
 J. Giapintzakis(a,b,c), S. Gardelis(a), J. Androulakis(a), O. Monnereau(d), P.D. Buckle(e), (a)Institute of Electronic Structure and Laser, FORTH, 71110 Heraklion, Crete, Greece, (b)Dept. of Materials Science and Technology, University of Crete, 71003 Heraklion, Greece, (c)Dept. of Physics, University of Cyprus, 1678 Nicosia, Cyprus, (d)MADIREL, Ctr St Jerome, 13397 Marseille 20, France, (e)QinetiQ Ltd., Malvern Technology Ctr., Worcestershire, U.K.
- B-III/P31** STRUCTURAL AND MAGNETIC STUDY OF THIN FILMS OF ANISOTROPIC TERNARY ALLOYS (Fe-Ni)Pt
 R.V.P. Montsouka, J. Arabski, C. Ulhaq-Bouillet and V. Pierron-Bohnes, IPCMS-GEMME, BP 43, 23 rue du Loess, 67034 Strasbourg Cedex 2, France
- B-III/P32** CoPt NANOPARTICLES EXCHANGE BIASED WITH FeMn OVERLAYERS
 L. Castaldi, T. Speliotis, K. Giannakopoulos, A. Travlos, D. Niarchos, IMS, NCSR "Demokritos", Ag. Paraskevi Attiki 153 10, Greece
- B-III/P33** EFFECT OF OBLIQUE EVAPORATION ONTO MORPHOLOGY AND MAGNETIC ANISOTROPY IN IRON FILMS DEPOSITED ON ULTRATHIN IRON SILICIDES
 J.L. Bubendorff, G. Garreau, S. Zabrocki, S. Hajjar, D. Berling, A. Mehdaoui, G. Gewinner, C. Pirri, Laboratoire de Physique et de Spectroscopie Electronique -CNRS UMR 7014 - Université de Haute Alsace, Faculté des Sciences et Techniques, 4 rue des frères Lumière, 68093 Mulhouse Cedex, France
- B-III/P34** ANISOTROPIC FMR-LINEWIDTH OF TRIPLE-DOMAIN Fe ON HEXAGONAL GaN
 M. Buchmeier, D.E. Bürgler, C.M. Schneider, Institute of Solid State Research, Electronic Properties, Research Center Jülich, Germany, R. Meijers, R. Calarco, Institute for Thin Films and Interfaces, Semiconductor Films and Devices, Research Center Jülich, Germany
- B-III/P35** MAGNETO-OPTICAL SPECTROSCOPY OF WIDE BAND GAP DILUTED MAGNETIC SEMICONDUCTORS: GaMnN AND ZnCoO
 S. Marcet(a), W. Pacuski(a,c), A. Titov(a), E. Bellet Almaric(a), L. Besombes(a), X. Biquard(a), D. Halley(a), S. Kuroda(a), D. Ferrand(a), R. Giraud(a), H. Mariette(a), R.M. Galera(b), B. Barbara(b), J. Cibert(b), P. Kossacki(c), J. Gaj(c), E. Gheeraert(d), C. Deparis(e), C. Mohrain(e), (a)CNRS-CEA Joint Group, Lab. Spectrométrie Physique, BP87, 38402 St Martin d'Hères, France, (b)Laboratoire Louis Néel, CNRS, BP 166X, 38042 Grenoble, France, (c)Institute of Experimental Physics, Warsaw University, ul. Hoza 69, 00-681 Warsaw, Poland, (d)Laboratoire d'études des propriétés électroniques des solides. 25 av des martyrs, BP 166, Grenoble, France, (e)CRHEA rue Bernard Grégory 06560 Valbonne, France
- B-III/P36** GROWTH AND INVESTIGATION OF LATTICE-MATCHED MAGNETITE HETEROSTRUCTURES FOR APPLICATION IN SPINTRONICS
 B. Vengalis, K. Šliuliene, V. LISAUSKAS, Semiconductor Physics Institute, A. Goštauto 11, 2600 Vilnius, Lithuania
- B-III/P37** STRUCTURAL AND MAGNETIC STUDY OF THIN FILMS OF ANISOTROPIC TERNARY ALLOYS (Fe-Ni)Pt
 R.V.P. Montsouka, J. Arabski, C. Ulhaq-Bouillet and V. Pierron-Bohnes, IPCMS-GEMME, BP 43, 23 rue du Loess, 67034 Strasbourg Cedex 2, France

Wednesday, June 1, 2005
Mercredi 1er juin 2005

Afternoon
Après-midi

Session V : Poster

14:00 – 15:40 **POSTER SESSION 2**

Session VI : Dynamics

Session chairs : M. Talanana

- B-VI.01** 15:40 -Invited- **MAGNETISATION DYNAMICS IN FERROMAGNETIC DISKS:**
C.H. Back, M. Buess, K. Perzlmaier, I. Neudecker, Universität Regensburg, 93040 Regensburg, Germany and D. Pescia, ETH Zürich, 8093 Zürich, Switzerland and M. Scheinfein, Simon Fraser University, Burnaby Canada
- B-VI.02** 16:20 -Invited- **ULTRAFAST AND STATIC SPECTROSCOPIC MAGNETO-OPTICAL STUDY OF SPINTRONIC MATERIALS**
A.V. Kimmel, IMM, RADBOUD UNIVERSITY NIJMEGEN, Toornivoeld 1, 6525 ED Nijmegen, The Netherlands
- B-VI.03** 17:00 **SPIN DYNAMICS IN BULK CDTE AT ROOM TEMPERATURE**
P. Nahalkova, P. Nemeč, D. Sprinzl, E. Belas, P. Horodysky, J. Franc, P. Maly, Faculty of Mathematics and Physics, Charles University in Prague, Ke Karlovu 3, 121 16 Prague 2, Czech Republic
- B-VI.04** 17:20 **THREE DIMENSIONAL SPIN DYNAMICS INDUCED BY ULTRASHORT OPTICAL PULSES IN COBALT THIN FILMS**
M. Vomir, L.H.F. Andrade, E. Beaurepaire, J.-Y. Bigot, Institut de Physique et Chimie des Matériaux de Strasbourg, Unité Mixte 7504 CNRS, Université Louis Pasteur, BP. 43, 23 rue du Loess, 67034 Strasbourg Cedex, France
- B-VI.05** 17:40 **DYNAMIC HEATING IN SUB-MICRON SIZE MAGNETIC TUNNEL JUNCTIONS WITH EXCHANGE BIASED STORAGE LAYER**
M. Kerekes(a), I.L. Prejbeanu(a), R. Sousa(a), O. Redon(a,c), U.Ebels(a), P.Xavier(b), J-P Nozières(a), P.P. Freitas(d), (a)Spintec, URA 2512 CEA-CNRS, 17 Rue des Martyrs, 38054 Grenoble Cedex, France, (b)UMR 5130 IMEP CNRS-UJF-INPG, Grenoble, 23 Av des Martyrs, 38016 Grenoble, France, (c)Léti/DIHS/LMNO, CEA Grenoble, 17 Rue des Martyrs, 38054 Grenoble Cedex, France, (d)INESC-MN, R. Alves Redol, 9, 1000, Lisbon, Portugal
- 19:00 **AWARD CEREMONY**
The symposium organizers and the candidates to the graduate student award are requested to attend.

CONFERENCE RECEPTION

POSTER SESSION 2
Wednesday, June 1, 2005
14:00 – 15:40

- B-V/P01** MAGNETIC TUNNEL JUNCTIONS BASED ON HALF-METALLIC SR2FEMO06
T. Fix, S. Colis, D. Stoeffler, J.L. Loison, G. Versini, C. Leuvre, C. Ulhaq, and A. Dinia, IPCMS (UMR 7504 du CNRS), ULP-ECPM, 23 rue du Loess, BP 43, 67034 Strasbourg Cedex2, France
- B-V/P02** EFFICIENT ELECTRON SPIN FILTERING AT THE FERROMAGNET/SEMICONDUCTOR INTERFACE
S.J. Steinmuller, T. Trypiniotis, W.S. Cho, C.A.F. Vaz, W.S. Lew, C.M. Guertler, G. Wastlbauer and J.A. C. Bland, Cavendish Laboratory, University of Cambridge, U.K.
- B-V/P03** UNIFIED DESCRIPTION OF SPIN-POLARIZED ELECTRON TRANSPORT IN FERROMAGNET-SEMICONDUCTOR HETEROSTRUCTURES
R. Lipperheide and U. Wille, Abteilung Theoretische Physik, Hahn-Meitner-Institut Berlin, Glienicker Str. 100, 14109 Berlin, Germany
- B-V/P04** SPIN-ORBIT COUPLING INDUCED BY ELECTRICAL POLARIZATION AND SPINTRONICS EFFECTS IN SEMICONDUCTOR STRUCTURES
V. Kantser, S. Arapan, S. Cărlig, F. Ermalai, LISES, Institute of Applied Physics, Kishinev 2028 R., Moldova
- B-V/P05** OSCILLATING BEHAVIOR OF SUPERCONDUCTING CRITICAL TEMPERATURE FOR SUPERCONDUCTOR/FERROMAGNET BILAYERS IN PARALLEL MAGNETIC FIELD
A. Sidorenko, V. Zdravkov, Institute of Applied Physics, 2028 Kishinev, Moldova; V. Ryazanov, V. Oboznov, Institute of Solid State Physics, 142432 Chernogolovka, Russia; S. Horn, A. Wixforth, Institut für Physik, Universität Augsburg, 86159 Augsburg, Germany
- B-V/P06** CONTROL OF AN INTERELECTRODE CURRENT BY PARAMAGNETIC IONS INCORPORATED INTO A MOLECULAR STRUCTURE
E.G. Petrov, Bogoliubov Institute for Theoretical Physics, National Academy of Sciences of Ukraine, Metrologichna Str. 14-b, 03143 Kiev, Ukraine
- B-V/P07** FEATURES OF TRANSPORT PHENOMENAS IN MAGNETIC SEMICONDUCTORS WITH LASER-INDUCED PERIODIC NANOSTRUCTURES
O.Yu. Semchuk, R.V. Bila, L.G. Grechko, Institute of Surface Chemistry NAS of Ukraine, 17 General Naumov Street, 03164, Kyiv, Ukraine and M. Willander, M. Karlsteen, Chalmers University of Technology and Goteborg University, 41296, Goteborg, Sweden
- B-V/P08** EFFECT OF MAGNETIC FIELD ON THE ABNORMAL ELECTRORESISTANCE BEHAVIOR IN LA0.8CA0.2MNO3 EPITAXIAL THIN FILMS
J. Gao, and F. X. Hu Department of Physics, The University of Hong Kong, Pokfulam Road, Hong Kong
- B-V/P09** CORRELATION BETWEEN ELECTRORESISTANCE AND MAGNETORESISTANCE IN LA0.9BA0.1MNO3 THIN FILMS
F.X. Hu, and J. Gao, Department of Physics, The University of Hong Kong, Pokfulam Road, Hong Kong
- B-V/P10** SPIN POLARIZATION OF NiMnSb THROUGH A MgO BARRIER
M. Sicot and S. Andrieu, Laboratoire de Physique des Matériaux, UMR 7556 CNRS/Univ. Nancy, France; A. Tagliaferri, C. De Nadaï and N. Brookes, ESRF, 38041 Grenoble, France; F. Bertran, LURE, CNRS/CEA/Université Paris Sud, BP 34, 91898 Orsay, France
- B-V/P11** THEORETICAL DYNAMIC STABILITY DIAGRAM OF MAGNETIC MULTILAYERS DRIVEN BY SPIN-POLARIZED CURRENT
M. Carpentieri, G. Finocchio, B. Azzèrboni, Dipartimento di Fisica della Materia e Tecnologie Fisiche Avanzate. University of Messina. Salita Sperone 31, 98166 S. Agata, Messina, Italy, L. Torres, E. Martinez, L. Lopez-Diaz, Departamento de Fisica Aplicada. Universidad de Salamanca, Plaza de la Merced s/n, 37008 Salamanca. Spain
- B-V/P12** RESONANT TUNNELING IN MNAS/III-V/MNAS JUNCTIONS
V. Garcia(a), H. Jaffrès(b), M. Eddrief(a), M. Marangolo(a), V.H. Etgens(a), and J.M. George(b), (a)LMCP, Laboratoire de Minéralogie-Cristallographie, Universités Paris 6 et Paris 7, CNRS UMR, 7590, case 115, 4 Place Jussieu, 75252 Paris Cedex 05, France, (b)Unité Mixte de Physique CNRS / THALES, Domaine de Corbeville, 91404 Orsay, France
- B-V/P13** STRUCTURAL, MAGNETIC AND TRANSPORT PROPERTIES OF AN ORGANIC BASED JUNCTION
J. Arabski, F. Bailly, E. Beaurepaire, S. Boukari, V. Da Costa, Y. Henry, J. Le Moigne IPCMS CNRS-UMR 7504, 23 rue du Loess, BP43, 67034 Strasbourg, France
- B-V/P14** RESONANT TRANSMISSION THROUGH A DOUBLE DOMAIN WALL IN MAGNETIC NANOWIRES
V.K. Dugaev, Instituto Superior Tecnico, Lisbon, Portugal; J. Berakdar, MPI fuer Mikrostrukturphysik, Halle, Germany; J. Barnas, A. Mickiewicz University, Poznan, Poland; M. Vieira, ISEL, Lisbon, Portugal
- B-V/P15** BLOCKING AND MEMORY FUNCTIONALITIES USING METAL OXIDE MULTILAYER SYSTEMS
A. Iovan, Royal Institute of Technology (KTH), Physics departement, SE-100 44 Stockholm, Sweden, V. Da Costa, Y. Henry, D. Stoeffler, Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), 23 rue du Loess / BP43 67034 Strasbourg, France

- B-V/P16** ATYPIC TRANSPORT PROPERTIES ON METAL OXIDE MULTI-LAYERS SYSTEMS
V. Da Costa, Y. Henry, D. Stoeffler, Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), 23 rue du Loess / BP43, 67034 Strasbourg, France, A. Iovan, Royal Institute of Technology (KTH), Physics departement, SE-100 44 Stockholm, Sweden
- B-V/P17** EFFECT OF CURRENT AND LIGHT ON REMAGNETIZATION OF SPIN-VALVE PHOTODIODES
V. Sohatsky, D. Makarov, Kiev University, 64 Volodymyrska, 01033 Kiev, Ukraine and J. Schumann, IFW, 20 Helmholtzstr., 01069 Dresden, Germany
- B-V/P18** CORRELATION BETWEEN MICROSTRUCTURE AND ELECTRONIC BEHAVIOUR IN RAPIDLY QUENCHED GRANULAR Cu-Co ALLOYS
R. Singha(a), M. Chakraborty(b), S.K. Ray(a), and V. Srinivas(a), (a)Department of Physics & Meteorology, (b)Department of Metallurgical & Materials Engineering, Indian Institute of Technology, Kharagpur-721302, India
- B-V/P19** MAGNETOTRANSPORT OF CaCu₃Mn₄O₁₂ COMPLEX PEROVSKITE DERIVATIVES
J. Sánchez-Benítez, A. de Andrés, J.A. Alonso and M.J. Martínez-Lope, Instituto de Materiales de Madrid, Consejo Superior de Investigaciones Científicas, Cantoblanco, 28049 Madrid, Spain
- B-V/P20** HIGH FREQUENCY MAGNETIC EIGEN EXCITATIONS IN A SPIN VALVE SUBMITTED TO CPP DC CURRENT
Q. Mistral, A. Deac, J. Grollier, T. Devolder, Y. Liu, M. Li, P. Wang, B. Dieny
- B-V/P21** MACROSCOPIC DESCRIPTION OF SPIN TRANSFER TORQUE
J. Barnas(a), A. Fert(b), M. Gmitra(a), I. Weymann(a), and V. K. Dugaev(c), (a)Department of Physics, Adam Mickiewicz University, Poznan, Poland, and Institute of Molecular Physics, Polish Academy of Sciences, Poznan, Poland; (b)Unite Mixte de Physique CNRS/THALES, Orsay, France; (c)Instituto Superior Tecnico, Lisbon, Portugal
- B-V/P22** SINGLE- AND DOUBLE-ISLAND FERROMAGNETIC SINGLE-ELECTRON TRANSISTORS
J. Barnas(a,b), I. Weymann(a), J. Wisniewska(a), and H.W. Kunert(c), (a)Department of Physics, Adam Mickiewicz University, Poznan, Poland, (b)Institute of Molecular Physics, Polish Academy of Sciences, Poznan, Poland, (c)Department of Physics, University of Pretoria, Pretoria, South Africa
- B-V/P23** A LEED, STM AND ARUPS STUDY OF COBALT OXIDE FILMS ON Ag(100)
K.-M. Schindler, Ch. Hagendorf, J. Wang, W. Widdra, and H. Neddermeyer, Martin-Luther-University Halle-Wittenberg, FB Physik, Hoher Weg 8, 06099 Halle, Germany
- B-V/P24** SPIN POLARIZED ITINERANT ELECTRONS IN CA₂FEMoO₆ DOUBLE PEROVSKITES
D. Rubí(a), J. Nogués(b), J. Muñoz(c) and J. Fontcuberta(a), (a)Institut de Materials de Barcelona, Consejo Superior de Investigaciones Científicas, Campus UAB, 08193, Bellaterra, Spain, (b)Institutió Catalana de Recerca i Estudis Avançats (ICREA)and Departament de Física, Universitat Autònoma de Barcelona, 08193, Bellaterra, Spain, (c)Departament de Física, Universitat Autònoma de Barcelona, 08193, Bellaterra, Spain
- B-V/P25** ELECTRIC FIELD EFFECT ON THE RESISTANCE OF A CHANNEL MADE OF CHARGE-ORDERED MANGANITE
R. Soulimane, Ph. Leocoeur, M. Bibes and A.-M. Haghiri-Gosnet, Institut d'Electronique Fondamentale,CNRS UMR 8622, Université Paris-Sud, 91405 Orsay, France, W. Prellier, G. Poullain, R. Bouregba and B. Mercey, Laboratoire de Cristallographie et de Sciences des Matériaux, CRISMAT-ISMRA, UMR6508, 14050 Caen, France
- B-V/P26** CHROMIUM OXIDES FOR SPINTRONIC APPLICATIONS - STRUCTURAL CHARACTERISATION AND RAMAN STUDIES
O. Monnereau, L. Tortet, F. Guinneton, MADIREL, and R. Notonier, SCM, U-Provence, Marseille, France, C.E.A. Grigorescu, INOE 2000, Comuna Magurele, P.O. Box MG-5, 77125 Romania, T. Zhang, ICSTM, London, U.K., G. Socol, D. Stanoi, I.N. Mihailescu, NILPRP, Comuna Magurele, Romania, H.J. Trodahl, VUW, Wellington, New Zealand
- B-V/P27** THEORETICAL STUDY OF SPIN FILTERING IN DOUBLE MAGNETIC BARRIERS
H. Dakhlaoui And S. Jaziri
- B-V/P28** PLANAR HALL EFFECT IN EPITAXIAL (110) La₂/3Ca₁/3MnO₃ FILMS
I.C. Infante(a), V. Lauhkin(a,b), F. Sánchez(a) and J. Fontcuberta(a), (a)Institut de Ciència de materials de Barcelona (ICMAB-CSIC), Campus UAB, Bellaterra, Spain, (b)Institut Català de Recerca i Estudis Avançats (ICREA), Barcelona, Spain
- B-V/P29** MAGNETICALLY SOFTENED, HIGH MOMENT Fe FILMS AND THEIR USE IN MAGNETIC TUNNEL JUNCTIONS
M.T. Georgieva, N.D. Telling and P.J. Grundy, Institute for Materials Research, Maxwell Building, University of Salford, Salford M72ED, U.K.
- B-V/P30** CHARACTERIZATION OF Co/Al₂O₃/Si CONTACTS FOR SPIN INJECTION INTO SILICON
K. Motohashi, B.C. Min, J.C. Lodder and R. Jansen, MESA+ Institute for Nanotechnology, University of Twente, 7500AE Enschede, The Netherlands
- B-V/P31** SPIN-DEPENDENT HEAT AND CHARGE TRANSPORT IN MAGNETIC NANOSTRUCTURES
S. Serrano Guisan, L. Gravier, M. Abid, C. Terrier et J.-Ph. Ansermet, Institut de Physique des Nanostructures (IPN), Ecole Polytechnique Fédérale de Lausanne, PHB-Ecublens, 1015 Lausanne-EPFL, Switzerland

B-V/P32 TUNNEL MAGNETO RESISTANCE ON Co/Al₂O₃/Co/NiFe MULTILAYER ELABORATED BY ION BEAM SPUTTERING
E.H. Oubensaid, N. Marsot, C. Schwebel, Institut d'Electronique Fondamentale, Université Paris Sud, Bâtiment 220, 91405 Orsay Cedex, France

B-V/P33 COBALTITES: NEW MATERIALS WITH MAGNETO-RESISTANCE PROPERTIES
A. Maignan, S. Hébert, V. Pralong, V. Caignaert and B. Raveau, Laboratoire CRISMAT, ENSICAEN/CNRS, 6 Bd Mth Juin, 14050 Caen cedex 4, France

Thursday, June 2, 2005
Jeudi 2 juin 2005

Morning
Matin

Session VII : Diluted magnetic semiconductor
Session chairs : J.A.C. Bland

- B-VII.01** 9:00 -Invited- ZnCoO: A ROOM TEMPERATURE DILUTED MAGNETIC SEMICONDUCTOR
K. Rode, A. Anane, J.-L. Maurice, F. Petroff, V. Cros, J.-P. Contour, and A. Fert, Unité Mixte de Physique CNRS/Thales, Domaine de Corbeville, 91404 Orsay Cedex, France and Université Paris-Sud, 91405 Orsay Cedex, France, E. Fonda, Synchrotron SOLEIL, Saint-Aubin - BP 48, 91192 GIF-sur-Yvette Cedex, France
- B-VII.02** 9:40 FERROMAGNETISM AND FERROMAGNETIC RESONANCE IN Mn IMPLANTED Si AND GaAs
N.A. Sobolev, M. Oliveira, V. Amaral, A. Neves, M.C. Carmo, Departamento de Física, Universidade de Aveiro, 3810-193 Aveiro, Portugal, W. Wesch, O. Picht, E. Wendler, Institut für Festkörperphysik, Friedrich-Schiller-Universität Jena, 07743 Jena, Germany, U. Kaiser, Z.E. Elektronenmikroskopie, Universität Ulm, 89069 Ulm, Germany, and J. Heinrich, Innovent Technologie-Entwicklung, 07745 Jena, Germany
- B-VII.03** 10:00 RED SHIFT IN ORGANIC LIGHT EMITTING DIODES WITH SPIN POLARIZED MANGANITE ELECTRODE
I. Bergenti, V. Dediu, M. Murgia, A. Riminucci, G. Ruani, C. Taliani ISMN CNR via P. Gobetti 101 40129 Bologna, Italy
- B-VII.04** 10:20 HALF-METALLIC MATERIALS: SPIN TRANSPORT ON ATOMIC SCALE
N. Berdunov, S. Murphy, G. Mariotto, I.V. Shvets, SFI Laboratories, Physics Dept., Trinity College, Dublin, Ireland
- 10:40 **BREAK**

Session VIII : Synchrotron Radiation (joint session with symposium O)
Session chairs :

- B-VIII.01** 11:00 -Invited- FUNDAMENTAL MAGNETIC STATES OF DISC AND RING ELEMENTS
C.A.F. Vaz(a), M. Klauui(b), J.A.C. Bland (a), L.J. Heyderman(c), F. Nolting(d), (a) University of Cambridge, Cavendish Laboratory, Cambridge, U.K., (b)Fachbereich Physik, Universitaet Konstanz, Konstanz, Germany, (c)Laboratory for Micro- and Nanotechnology, Paul Scherrer Institut, Villigen PSI, Switzerland, (d)Swiss Light Source, Paul Scherrer Institut, Villigen PSI, Switzerland
- B-VIII.02** 11:30 ANTIFERROMAGNETIC DOMAIN STRUCTURE OF HEMATITE THIN FILMS INVESTIGATED BY X-PEEM MICROSCOPY
R. Belkhou(a), A. Barbier(b), P. Ohresser(a), M. Gautier-Soyer(b), J.-B. Moussy(b), A. Bataille(b), M.-J. Guittet(b), J. Raabe(c), F. Nolting(c)and C. Quitmann(c), (a)LURE, bat 209d. Université Paris-Sud, B.P. 34, 91405 Orsay, France, (b)CEA/DRECAM/SPCSI, 91191 Gif-Sur-Yvette, France, (c)Paul Scherrer Institut –SLS, 5232 Villigen, PSI, Switzerland
- B-VIII.03** 11:50 SOFT X-RAY RESONANT MAGNETIC SCATTERING STUDY OF PERPENDICULAR EXCHANGE COUPLED [Fe/Co]_n/FeMn FILMS
J. Camarero(a), J. Miguel(b), F. Garcia(c), J. Vogel(d), S. Pizzini(d), F. Romanens(d), J. Sort(c), N.B. Brookes(e), B. Dieny(c) and J.B. Goedkoop(b), (a)Dpto. de Física de la Materia Condensada, Universidad Autónoma de Madrid, 28049 Madrid, Spain, (b)Van der Waals-Zeeman Institute, University of Amsterdam, 1018 XE Amsterdam, The Netherlands, (c)CEA/Grenoble, DRFMC/SPINTEC, 38054 Grenoble, France, (d)Laboratoire Louis Néel-CNRS, 38042 Grenoble, France, (e)European Synchrotron Radiation Facility (ESRF), 38043 Grenoble, France
- B-VIII.04** 12:10 ELECTRONIC AND MAGNETIC PROPERTIES OF SINGLE-CRYSTALLINE X/MgO(001) INTERFACES (X=Mn,Fe,Co)
M. Sicot and S. Andrieu, Laboratoire de Physique des Matériaux, UMR 7556 CNRS/Univ.Nancy I, BP 239, 54506 Vandoeuvre, France; F. Bertran and F. Fortuna, L.U.R.E., BP 34, 91898 Orsay, France
- 12:30 **LUNCH**

Thursday, June 2, 2005
Jeudi 2 juin 2005

Afternoon
Après-midi

Session IX : Magnetic oxides
Session chairs : N.A. Sobolev

- B-IX.01** 14:00 -Invited- SPINTRONICS WITH MULTIFERROICS
M. Gajek(a), M. Bibes(a,c), A. Barthélémy(a), K. Bouzehouane(a), S. Fusil(d), G. Herranz(a,b), M. Varela(e), J. Fontcuberta(b), A. Fert(a), (a)Unité Mixte de Physique CNRS / Thales, Domaine de Corbeville, 91404 Orsay, France, (b)Institut de Ciència de Materials de Barcelona, CSIC, Campus de la UAB, 08193 Bellaterra, Catalunya, Spain, (c)Institut d'Electronique Fondamentale, Université Paris-Sud, 91405 Orsay, France, (d)Université d'Evry, rue du Père Jarlan, 91025 Evry, France, (e)Dept. de Física Aplicada i Òptica, Universitat de Barcelona, Diagonal 647, 08028 Barcelona, Catalunya, Spain
- B-IX.02** 14:40 AB INITIO STUDY OF THE ELECTRONIC STRUCTURE OF Sr₂FeMoO₆ DOUBLE PEROVSKITES PRESENTING IMPERFECTIONS
Daniel Stoeffler and Silviu Colis, Institut de Physique et de Chimie des Matériaux de Strasbourg (UMR 7504 CNRS-ULP), 23 rue du Loess, BP 43, 67034 Strasbourg Cedex 2, France
- B-IX.03** 15:00 A NEW APPROACH TO INCREASE THE CURIE TEMPERATURE OF FE-MO DOUBLE PEROVSKITES
D. Rubi(a), C. Frontera(a), J. Nogués(b), J. Muñoz(c) and J. Fontcuberta(a), (a)Instituto de Materiales de Barcelona, Consejo Superior de Investigaciones Científicas, Campus UAB, 08193 Bellaterra, Spain, (b)Institució Catalana de Recerca i Estudis Avançats (ICREA) and Departament de Física, Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain, (c)Departament de Física, Universitat Autònoma de Barcelona, 08193, Bellaterra, Spain
- 15:20 **BREAK**

Session X : Semiconductors II
Session chairs : A. Schuhl

- B-X.01** 16:00 -Invited- SPIN INJECTION IN LED'S AND IN UNIPOLAR DEVICES
W. Van Roy, P. Van Dorpe, J. De Boeck, and G. Borghs, IMEC, Kapeldreef 75, 3001 Leuven, Belgium
- B-X.02** 16:40 EXPERIMENTAL OPTICAL SCHEMES FOR DETECTION OF SPIN INJECTION
A.I. Savchuk., V.I. Fediv, I.D. Stolyarchuk, S.A. Savchuk, Department of Physics of Semiconductors and Nanostructures, Chernivtsi National University, 2 Kotsubinsky Str., 58012 Chernivtsi, Ukraine, A. Perrone, University of Lecce, Physics Department and INFN, Via per Arnesano, 73100 Lecce, Italy
- B-X.03** 17:00 SPIN INJECTION: FROM SPIN DIFFUSION TO MAGNETIZATION REVERSAL
J.-E. Wegrowe, H.-J. Drouhin, Laboratoire des Solides Irradiés, Ecole Polytechnique, Palaiseau, France
- B-X.04** 17:20 LONG RANGE SPIN TRANSPORT IN GALLIUM ARSENIDE QUANTUM WELLS USING SURFACE ACOUSTIC WAVES
J.A.H. Stotz, R. Hey, and P.V. Santos, Paul-Drude-Institut für Festkörperelektronik, Hausvogteiplatz 5-7, 10117 Berlin, Germany
- B-X.05** 17:40 ELECTRICAL INJECTION OF SPIN-POLARISED ELECTRONS INTO SILICON
C. Dulaud(a), A. Bsiesy(a), and V. Safarov(b), (a)SPINTEC, CEA/Grenoble and CNRS(URA 2512), 38054 Grenoble Cedex 9, France, (b)CRMCN, CNRS (UMR 6631) and Université de la Méditerranée, 13288 Marseille, France

Friday, June 3, 2005
Vendredi 3 juin 2005

Morning
Matin

Session XI : Tunnel junctions
Session chairs : E. Beaurepaire

- B-XI.01** 9:00 -Invited TUNNEL JUNCTION MATERIALS FOR QUANTUM COMPUTATION BASED ON JOSEPH JUNCTION PHASE QBITS
D.P. Pappas, S. Oh, K. Osborn, K. Cicak, R.W. Simmonds, National Institute of Standards and Technology, Boulder CO 80305, USA and R. McDermott, M. Steffen, K.B. Cooper, J.M. Martinis, University of California, Santa Barbara CA 93106, USA
- B-XI.02** 9:40 MAGNETIC TUNNEL JUNCTIONS WITH COMPOSITE TUNNEL BARRIERS: ASYMMETRIC TRANSPORT CHARACTERISTICS
M. Hehn, C. de Buttet, F. Montaigne, A. Schuhl, LPM, Bd des Aiguillettes, 54230 Vandoeuvre France; L. Le Brizoual, P. Alnot, LPMIA, Bd des Aiguillettes, 54230 Vandoeuvre, France; E. Snoeck, CEMES-CNRS, 29 rue Jeanne Marvig, 31055 Toulouse, France; S. Zoll, CROLLES 2 (FREESCALE - PHILIPS - ST MICROELECTRONICS), 850 rue Jean Monnet, 38926 Crolles, France
- B-XI.03** 10:00 ELECTROMIGRATION-DRIVEN RESISTANCE SWITCHING IN MAGNETIC TUNNEL JUNCTIONS
J. Ventura, J. Teixeira, J.P. Araujo, J.B. Sousa, IFIMUP and FCUP, R. Campo Alegre 678, 4169-007 Porto, Portugal, Y. Liu, Z. Zhang and P.P. Freitas, INESC-MN and IST, R. Alves Redol 9-1, 1000-029 Lisbon, Portugal
- B-XI.04** 10:20 CRYSTALLINE GAMMA-AI₂O₃ BARRIER FOR MAGNETITE-BASED MAGNETIC TUNNEL JUNCTIONS
J.-B. Moussy, A.M. Bataille, M.-J. Guittet, M. Gautier-Soyer, DRECAM/SPCSI, CEA Saclay, 91191 Gif-sur-Yvette, France and C. Gatel, E. Snoeck, CEMES-CNRS/Nanomat, 31055 Toulouse, France and P. Bayle-Guillemaud, DRFMC/SP2M, CEA Grenoble, 38054 Grenoble, France and P. Seneor, K. Bouzheouane, F. Petroff, UMR CNRS/Thales, Domaine de Corbeville, 91404 Orsay, France
- 10:40 **BREAK**

Session XII : Magnetism
Session chairs : M. Hehn

- B-XII.01** 11:00 -Invited- ELECTRICALLY CONTROLLED EXCHANGE BIAS FOR SPINTRONIC APPLICATIONS
Ch. Binck(a), A. Hochstrat(b), X. Chen(b), P. Borisov(b), W. Kleemann(b) and B. Doudin(a), (a)Physics & Astronomy, University of Nebraska-Lincoln, NE, USA¹, (b)Angewandte Physik, University Duisburg-Essen, Duisburg, Germany
- B-XII.02** 11:40 INVESTIGATION OF THE SPIN PROPERTIES OF ELECTRONS IN ZERO AND TWO DIMENSIONAL SiGe STRUCTURES BY ELECTRON SPIN RESONANCE AND ELECTRICALLY DETECTED MAGNETIC RESONANCE
H. Malissa, W. Jantsch, G. Chen, D. Gruber, H. Lichtenberger, F. Schaffler, Institute of Semiconductor and Solid State Physics, Johannes Kepler University, Linz, Austria, Z. Wilamowski, Institute of Physics, Polish Academy of Sciences, Warsaw, Poland
- B-XII.03** 12:00 PLANAR DOMAIN WALL IN ANTIFERROMAGNETIC/FERROMAGNETIC SYSTEMS:THE Co/NiO CASE
Marco Liberati(a,b), Andreas Scholl(b), Elke Arenholz(b), Hendrik Ohldag(c), Luc Thomas(d), Yun-Jun Tang(e), Amy Berkowitz(e), Joachim Stohr(c), (a)Department of Physics, Montana State University, Bozeman MT 59717, USA, (b)Lawrence Berkeley National Laboratory, Berkeley CA 94720, USA, (c)Stanford Synchrotron Radiation Laboratory, Stanford CA 94309, USA, (d)IBM Research Division, Almaden Research Center, San Jose CA 95120, USA, (e)Center for Magnetic Recording Research, University of California, San Diego CA 92093, USA
- B-XII.04** 12:20 BRILLOUIN LIGHT SCATTERING CROSSSECTIONS FROM SPINWAVES IN MAGNETIC MULTILAYERS
M. Buchmeier, H. Dassow, D.E. Bürgler, C.M. Schneider, Institute of Solid State Research, Electronic Properties, Research Center Jülich, Germany
- 12:40 **LUNCH**