

ORAL PROGRAM

Tuesday, September 6th

10:00 REGISTRATION

11:00 OPENING

11:30 **INV-01 ELECTRONICALLY TUNEABLE NANOSTRUCTURES**

H. Hahn^{1,2}, R. Kruk¹, S. Dasgupta¹, A. Mishra¹, P. Leufke^{1,2}, F. von Seggern^{1,2}

Karlsruhe Institute of Technology (KIT), Institute for Nanotechnology and Joint Research Laboratory Nanomaterials (KIT-TUD), Technische Universität Darmstadt, Germany

SESSION 1: Materials for Energy and Applications - I

Chairman: M. Vittori Antisari

12:15 **O1-01 FUNCTIONAL ULTRATHIN FILMS AND MULTI LAYERS: VERTICALLY CONFINED NANOPHASE MATERIALS.**

S. Valeri^{1,2}, A. Di Bona², S. Altieri¹, E. Gualtieri¹, A. Ballestrazzi¹, A. Rota^{1,2}

¹Dipartimento di Fisica dell'Università di Modena e Reggio Emilia – via Campi 2163/A 41125 Modena, Italy; ²CNR Istituto di Nanoscienze, Centro S3, via Campi 213/A 41125 Modena, Italy.

12:35 **O1-02 SYNTHESIS AND HYDROGEN PROPERTIES OF NANOCONFINED COMPLEX METAL HYDRIDES**

E. Callini¹, A. Borgschulte¹, and A. Züttel¹

¹Empa, Swiss Federal Laboratories for Materials Testing and Research, Hydrogen & Energy, CH-8600 Dübendorf, Switzerland

12:55 **O1-03 GROWTH, CHARACTERIZATION AND APPLICATION OF TITANIA NANOTUBES**

Th. Dikonimos¹, L. Giorgi¹, M.L. Grilli¹, S. Gagliardi¹, M. Falconieri¹, N. Lisi¹, P. Morales¹, E. Salernitano¹, G. Conte², R. Giorgi¹

¹ENEA C R Casaccia, Via Anguillarese 301, 00123 S. Maria di Galeria, Roma, Italy; ² Solid State and Diamond Electronics Lab, Department of Electronic Engineering, CNISM and INFN, University Roma Tre, Via della Vasca Navale, 84, 00146 Rome, Italy

13.15 Lunch

14:30 – 16:00 POSTER SESSION – P1

SESSION 2: Materials for Energy and Applications - II

Chairman: E. Agostinelli

16:00 **O2-01 “OPEN INNOVATION”: THE BOOST FOR THE NANOSHARE SRL FUTURE**

C. Falessi¹, M. Rossi², M. L. Terranova³

¹ SELEX S. I. & NanoShare, Via Tiburtina 1231, cfalessi@selex-si.com;

²Università Sapienza, marcorossi@uniroma1.it; ³Università Tor Vergata, marialetizia.terranova@roma2.infn.it

16:20 Coffee Break

16:40 **O2-02 FAST HYDRIDE-TO-METAL PHASE TRANSFORMATION IN Mg TRIGGERED BY SMALL Nb CLUSTERS**

C. Maurizio¹, R. Checchetto², A. Miotello² and P. Mengucci³

¹Dipartimento di Fisica, Università di Padova, 35131 Padova, Italy;

²Dipartimento di Fisica, Università di Trento, 3050 Povo (TN), Italy;

³Dipartimento di Fisica e Ingegneria dei Materiali, Università Politecnica delle Marche, 60131 Ancona, Italy.

17:00 **O2-03 CVD GROWTH OF GRAPHENE AND GRAPHENE BASED NANOMATERIALS**

N. Lisi, R. Giorgi, T. Dikonimos, S. Gagliardi, M. Falconieri, E. Salernitano, M. Re, P. Morales.

ENEA C.R. Casaccia, Via Anguillarese 301 00123 Roma

SESSION 3: Magnetic and Electronic Devices – I

Chairman: G. Piccaluga

17:20 **O3-01 CONTROLLED DEPOSITION OF NANOMAGNETS ON GRAPHENE**

C. Alvino^{1,2}, A. Candini¹, A. Ghirri¹, S. D’Addato^{1,2}, and M. Affronte^{1,2}

¹ Istituto Nanoscienze - CNR S3, Modena, Italy; ² Dipartimento di Fisica, Università di Modena e Reggio Emilia, Modena, Italy

17:40 **O3-02 THERMO SWITCHABLE MAGNETIC MOVERS**

C. Dionigi¹, Y. Piñeiro², A. Riminucci¹, M. Bañobre², J. Rivas², V. Dediu¹

¹ISMN - CNR, Via P.Gobetti 101, I-40129, Bologna, Italy; ² Universidad de Santiago de Compostela, Departamento de Física Aplicada, E-15706 Santiago de Compostela, Spain.

18:00 **O3-03 CORRELATION BETWEEN SPIN POLARIZATION, MAGNETIC PROPERTIES AND**

CHEMICAL STATE IN MAGNETO-PLASMONIC HETERO-NANO-STRUCTURES.

C. de Julián Fernández¹, F. Pineider^{2,1}, D. Cozzoli³, M. Scavini⁴, P. Gallinetto⁵, G. Campo¹, C. Sangregorio^{6,1}, A. Lascialfari⁷ and P. Ghigna⁸

¹INSTM- Udr Firenze, via della Lastruccia 3, Sesto Fiorentino, 50019, Italy;

²CNR- ISTM, Via Marzolo 1 Padova, 35131, Italy; ³Univ. del Salento & NNL – CNR, Via per Arnesano Km 5, 73100, Lecce, Italy; ⁴ Univ. di Milano and ISTM-CNR, Via Golgi 19, Milano, 20133 Italy; ⁵ Univ. di Pavia, Via Bassi 6, Pavia, 27100, Italy; ⁶ CNR-ISTM, Via C. Golgi 19, Milano, 20133, Italy; ⁷Univ. di Milano - INSTM, Via Trentacoste 2, 20134, Milan, Italy; ⁸Univ. Pavia. Dipartimento di Chimica, V.le Taramelli 16, Pavia.

18:20

O3-04 TOWARDS THE CONTROL OF MAGNETISM OF Co-Phthalocyanine BY SUBSTRATE ENGINEERING

E. Annese^{1,2}, J. Fujii¹, I. Vobornik¹, G. Panaccione¹, G. Rossi^{1,2}

¹IOM CNR, Laboratorio TASC, Area Science Park- BASOVIZZA, 34149 Trieste ² Università di Modena e Reggio Emilia, via Campi 213/A, 41100 Modena

Wednesday, September 7th

09:00 **INV-02 THE CONTROL OF EXCHANGE BIAS IN
POLYCRYSTALLINE METALLIC THIN FILMS**

K. O'Grady

Department of Physics, The University of York, York YO10 5DD, UK

SESSION 4: Magnetism - I

Chairman: P. Allia

09:45 **04-01 MAGNETIC PROPERTIES OF POLYMERIC
MATRIX NANOCOMPOSITES CONTAINING
MAGNETITE NANOPARTICLES**

A. Chiolerio¹, P. Allia², P. Tiberto³, M. Coïsson³, M. Sangermano²,
L. Suber⁴

¹Physics Department, Politecnico di Torino, Corso Duca degli Abruzzi 24, 10129 Torino, Italy; ²Materials Science and Chemical Engineering Department, Politecnico di Torino, Corso Duca degli Abruzzi 24, 10129 Torino, Italy; ³Electromagnetism Division, iNRiM, Strada delle Cacce 91, 10135 Torino, Italy; ⁴ISM - CNR, Area ROMA1, Via Salaria km 29.500, 00015 Monterotondo Stazione, Italy.

10:05 **04-02 MAGNETIC DOMAIN WALL CONDUITS
FOR SINGLE CELL APPLICATIONS.**

A.M. Torti¹, M. Donolato¹, E. Sogne¹, N. Kotesha², M. Deryabina², P. Vavassori³, M.F. Hansen², R. Bertacco¹

¹L-NESS and CNISM, Dipartimento di Fisica Politecnico di Milano, Via Anzani 42, 22100 Como, Italy; ²Department of Micro and Nanotechnology, DTU NanoTech, Building 345 East, DK-2800 Kongens Lyngby, Denmark; ³CIC NanoGUNE consolider, Tolosahiribidea 76, ES-20018 Donostia San Sebastian, Spain

10:25 **04-03 MICROSTRUCTURAL AND MAGNETIC
PROPERTIES OF NiMnGa/MgO EPITAXIAL THIN FILMS**

P. Ranzieri¹, S. Fabbrici¹, L. Nasi¹, F. Casoli¹, L. Righi², V.A. Chernenko³, F. Albertini¹

¹IMEM-CNR Viale Usberti 37/A 43124 Parma Italy. ²Dipartimento di chimica, Università degli studi di Parma, Viale G. Usberti 7/A 43124 Parma Italy; ³Dipartimento Electricidad y Electronica, Universidad del Pais Vasco, 48080 Bilbao, Spain.

10:45 **04-04 ULTRATHIN LA_{0.7}SR_{0.3}MNO₃ FILMS
STUDIED BY SCANNING TUNNELING MICROSCOPY**

A. Gambardella, I. Bergenti, P. Graziosi, M. Prezioso, F. Borgatti,
F. Biscarini, and V. A. Dediu

CNR-ISMN, Bologna, Via Gobetti 101, 40126, Bologna, Italy.

11:05 Coffee Break

SESSION 5: Biotechnology

Chairman: A. Musinu

11:25 **O5-01 NEW CORE-SHELL LUMINESCENT SILICA NANOPARTICLES AS ANALYTICAL TOOLS IN MEDICAL APPLICATIONS**

N. Zaccheroni¹, S. Bonacchi¹, R. Juris¹, M. Montalti¹, L. Prodi¹, E. Rampazzo¹, F. Bussolino² and S. Marchiò²

¹Dipartimento di Chimica "G. Ciamician", Latemar Unit, Università di Bologna, Bologna, Italy; ²Department of Oncological Sciences, University of Torino School of Medicine, IRCC - Institute for Cancer Research and Treatment, Torino, Italy

11:45 **O5-02 Fe₃O₄ NANOPARTICLES FOR MAGNETIC HYPERTHERMIA**

V. Chiesi¹, F. Bigi², A. Mega², M. Campanini¹, L. Nasi¹, G. Salviati¹, F. Casoli¹, Y. Gerelli⁴, A. Deriu⁴, G.F. Goya³, C. Marquina³, M.R. Ibarra³ and F. Albertini¹

¹IMEM-CNR, Parco Area delle Scienze 37/A 43124 Parma, Italy; ²Dipartimento di Chimica Organica, University of Parma, 43124 Parma, Italy; ³Instituto de Nanociencia de Aragón (INA), University of Zaragoza, Zaragoza 50009, Spain; ⁴Dipartimento di Fisica, University of Parma, 43124 Parma, Italy

12:05 **O5-03 FUNCTIONALISED MAGNETIC NANOPARTICLES FOR BIOMEDICAL APPLICATIONS**

C. Cannas, F. Orrù, A. Ardu, D. Peddis, G. Piccaluga A. Musinu

Dipartimento di Scienze Chimiche, Università di Cagliari, S.S: 554 bivio per Sestu, 09042, Monserrato, Cagliari, Italy

12:25 **O5-04 SYNTHESIS AND PHYSICO-CHEMICAL CHARACTERIZATION OF NANOCOMPLEXES CHITOSAN/DNA FOR GENE DELIVERY APPLICATIONS**

A. Di Martino¹, L. Chronopoulou¹, F. Ascenzioni², F. Bordini³ and C. Palocci¹

Sapienza Università di Roma, ¹Dipartimento di Chimica, ²Dipartimento di Biologia Cellulare e dello Sviluppo, ³Dipartimento di Fisica

12:45 **O5-05 MULTIPLE LENGTH SCALE PATTERN FABRICATION FOR REGENERATIVE MEDICINE**

B. Chelli¹, E. Bystrenova¹, F. Valle¹, M. Bianchi¹, M. Barbalinardo¹, A. Shehu¹, T. Cramer¹, G. Foschi¹, M. Murgia¹, A. Piccoli², P. Greco³, and F. Biscarini¹

¹Istituto per lo Studio dei Materiali Nanostrutturati ISMN-CNR, Via P. Gobetti 101, Bologna, IT; ²Nano4bio S.r.l. V.le. G. Fanin 48, Bologna, IT; ³Scriba Nanotecnologie S.r.l. P. Gobetti 52/3, Bologna, IT.

13:05 **O5-06 UPCONVERTING LANTHANIDE DOPED ALKALINE EARTH FLUORIDE NANOPARTICLES**

M. Pedroni¹, F. Piccinelli¹, S. Polizzi², M. Bettinelli¹, A. Speghini¹

¹Dipartimento di Biotecnologie, Università di Verona and INSTM, UdR Verona, Strada le Grazie 15, 37134, Verona, Italy; ²Dipartimento di Scienze Molecolari e Nanosistemi, Università Ca' Foscari Venezia and INSTM, UdR Venezia, Via Torino 155/b, 30172, Venezia-Mestre, Italy

13:25 Lunch

14:40 – 16:10 POSTER SESSION – P2

16:10 Coffee Break

SESSION 6: Magnetic and Electronic Devices - II

Chairman: *F. Albertini*

16:30 **O6-01 CORRELATION BETWEEN STRUCTURAL AND GIANT MAGNETORESISTANCE PROPERTIES OF Fe-Ag NANOGRANULAR FILMS**

M. Tamisari¹, F. Spizzo¹, M. Sacerdoti², G. Battaglin³, F. Ronconi¹

¹Department of Physics and CNISM, University of Ferrara, via Saragat, 1, 44122 Ferrara; ²Department of Earth Sciences, University of Ferrara, via Saragat, 1, 44122 Ferrara; ³ Department of Chemistry Physics, University Ca' Foscari, Calle larga Santa Marta 2137, 30123 Venezia, Italy

16:50 **O6-02 EPITAXIAL Fe/MgO/Fe TUNNELLING JUNCTIONS ON BaTiO₃ (001)**

G. Radaelli¹, S. Brivio¹, C. Rinaldi¹ and R. Bertacco¹

¹L-NESS and CNISM, Dipartimento di Fisica – Politecnico di Milano, Via Anzani 42, 22100 Como, Italy.

17:10 **O6-03 GERMANIUM SPIN-PHOTODIODES FOR LIGHT HELICITY DETECTION AT ROOM TEMPERATURE**

C. Rinaldi¹, M. Cantoni¹, D. Petti¹, R. Bertacco¹, N. M. Caffrey², S. Sanvito²

¹ CNISM and L-NESS - Politecnico di Milano, Via Anzani 42, 22100 Como, Italy; ² School of Physics and CRANN, Trinity College, Dublin 2, Ireland

17:30 **O6-04 MAGNETIC TUNNELING JUNCTIONS FOR BEAD MAGNETORELAXOMETRY.**

D. Petti¹, M. Donolato¹, E. Albisetti¹, E. Sogne¹, B. T. Dalslet², M. Cantoni¹, J. Cao³, F. Cardoso³, S. Cardoso³, P. P. Freitas³, M. F. Hansen², and R. Bertacco¹

¹L-NESS and CNISM, Dipartimento di Fisica, Politecnico di Milano, Via Anzani 42, 22100 Como, Italy; ² Department of Micro- and Nanotechnology, Technical University of Denmark, DTU Nanotech, Building 345 East, DK-2800 Kongens Lyngby, Denmark; ³ INESC MN, Rua Alves Redol 9, 1000-029 Lisbon, Portugal.

20:30 Social Dinner

Thursday, September 8th

SESSION 7: Electronics

Chairman: *S. Valeri*

09:20 **07-01 TAILORING PROPERTIES OF
FUNCTIONAL MATERIALS BY LITHOGRAPHICALLY
ASSISTED SELF-ASSEMBLING.**

M. Cavallini, and D. Gentili

ISMN - CNR, Area Bologna, Via Gobetti 101, 40129 Bologna, Italy

09:40 **07-02 DE-ALLOYING OF AN AU-BASED
AMORPHOUS ALLOY.**

P. Rizzi, F. Scaglione and L. Battezzati

Dipartimento di Chimica IFM and NIS, Università di Torino, V. Giuria 7, 10125 Torino, Italy.

10:00 **07-03 ORGANIC ELECTROCHEMICAL
TRANSISTORS FOR MONITORING FUNCTIONALIZED
MAGNETIC NANOPARTICLES.**

A. Romeo¹, G. Tarabella¹, N. Coppedè¹, R. Mosca¹ and S. Iannotta¹

¹IMEM-CNR, Parco Area delle Scienze 37/A, 43124, Parma, Italy.

10:20 **07-04 DONORS IN SILICON NANOSTRUCTURES
FOR QUANTUM INFORMATION PROCESSING: AN AB
INITIO STUDY**

G. Petretto^{1,2}, A. Debernardi¹, A. Masse^{1,2}, and M. Fanciulli^{1,2}

¹Laboratorio MDM, IMM-CNR, Via C. Olivetti, 2, 20041 Agrate Brianza (MB), Italy; ²Dipartimento di Scienza dei Materiali, Università degli studi Milano-Bicocca, 20125, Milano, Italy

10:40 **07-05 BOTTOM-UP APPROACH TO OBTAIN Ge-
RICH ISLANDS ON PRE-PATTERNED Si (001)
SUBSTRATES USING LEPECVD TECHNIQUE**

M. Bollani¹, D. Chrastina², E. Bonera³, R. Sordan², C. Spinella⁴ and G. Nicotra⁴

¹ CNR- IFN, L-NESS, via Anzani 42, 22100 Como, Italy; ²L-NESS Politecnico di Milano, Polo Territoriale di Como, via Anzani 42, 22100 Como, Italy; ³Dip. Scienza dei Materiali, Università degli Studi Milano-Bicocca, via Cozzi 53, 20125 Milano, Italy; ⁴IMM-CNR, Stradale Primosole 50, 95121 Catania, Italy.

11:00 Coffee Break

SESSION 8: Magnetism II
Chairman: D. Fiorani

11.30 **08-01 HIGH COERCIVITY OF CARBON
NANOTUBES SYNTHESIZED FROM AUSTENITIC
STAINLESS STEEL.**

F. D'Orazio¹, L. Camilli², M. Scarselli², S. Del Gobbo², P. Castrucci², F.R. Lamastra³, F. Nanni³, E. Gautron⁴, S. Lefrant⁴, F. Lucari¹, and M. De Crescenzi²

¹Unità CNISM, Dipartimento di Fisica, Università di L'Aquila, 67010 L'Aquila, Italy; ²Dipartimento di Fisica, Università di Roma "Tor Vergata", 00133 Roma, Italy; ³INSTM – Unità di ricerca di Roma "Tor Vergata" – Dipartimento di Scienze e Tecnologie Chimiche, Università di Roma "Tor Vergata", 00133 Roma, Italy; ⁴Institut des Matériaux Jean Rouxel, CNRS-UMR 6502, 44322 Nantes, France.

11.50 **08-02 MAGNETIC PROPERTIES OF
NANOPARTICLE-ASSEMBLED IRON FILMS WITH
PECULIAR MAGNETIC ANISOTROPY AND
TOPOLOGICAL DISTRIBUTION**

G. Ausanio¹, M. Arzeo¹, V. Iannotti¹ and L. Lanotte¹

¹CNR-SPIN and University "Federico II" of Naples, Department of Physical Sciences, P. le V. Tecchio, I-80125 Naples, Italy

12:10 **08-03 FERROMAGNETIC HARD L1₀ FePt
NANOPARTICLES IN A CARBON MATRIX: AN
EXAMPLE OF NANOCOMPASS**

M. Solzi¹, C. Pernechele¹, M. Villani², G. Calestani³, M. Gaboardi¹, A. Migliori⁴

¹Dipartimento di Fisica - Università di Parma - CNISM, viale G.P. Usberti, 7/A, 43100 Parma, ²Istituto IMEM-CNR, Parco Area delle Scienze 37/A - 43124 Parma, ³Dipartimento di Chimica GIAF - Università di Parma, viale G.P. Usberti 17/A, 43100 Parma, ⁴Istituto IMM-CNR, Via P. Gobetti 101, 40126 Bologna

12:30 **08-04 ASSEMBLING, MORPHOLOGY AND
STRUCTURE OF Ni@NiO, Ni@MgO and FePt
NANOPARTICLES**

S. D'Addato^{1,2}, V. Grillo^{1,3}, S. Altieri², P. Luches¹, A di Bona¹, S. Frabboni^{1,2}, S. Valeri^{1,2}, F. Rossi³, P. Lupo³, F. Casoli³, P. Ranzieri³ and F. Albertini³

¹Centro S3, Istituto Nanoscienze-CNR, Via G. Campi 213/a, 41125 Modena, Italy; ²Dipartimento di Fisica, Università di Modena e Reggio Emilia, Via G. Campi 213/a, 41125 Modena, Italy; ³IMEM-CNR Parco Area delle Scienze 37/A - 43100 Parma, Italy

12-50 **08-05 COMPARISON OF MAGNETIC AND
STRUCTURAL PROPERTIES ON AMORPHOUS
FeCoNbSiPB RAPIDLY SOLIDIFIED RIBBONS AND THIN
FILMS.**

M. Coïsson¹, F. Celegato¹, P. Tiberto¹, F. Vinai¹, S. Tripathi^{1,2}, M. Baricco², L. Battezzati² and G. Fiore²

¹INRIM, Electromagnetism Division, Strada delle Cacce 91, 10135 Torino (TO), Italy ²Dipartimento di Chimica IFM and NIS, Università di Torino, 10125 Torino (TO), Italy.

13:10

CLOSING REMARKS

POSTER PROGRAM

Tuesday, September 6th (h. 14:30)

SESSION P1

P1-01 ZnO/SBA-15 NANOCOMPOSITES FOR MID-TEMPERATURE REMOVAL OF H₂S: SYNTHESIS, PERFORMANCE AND REGENERATION STUDIES.

A. Ardu, M. Mureddu, E. Rombi, G. Cutrufello, I. Ferino, A. Musinu, G. Piccaluga, and C. Cannas

Dipartimento di Scienze Chimiche, Università di Cagliari, S.S: 554 bivio per Sestu, 09042, Monserrato, Cagliari, Italy

P1-02 COLLOIDAL MAGNETIC MESOPOROUS SILICA NANOPARTICLES.

F. Orrù, A. Ardu, A. Musinu, G. Piccaluga, and C. Cannas

Dipartimento di Scienze Chimiche, Università di Cagliari, S.S: 554 bivio per Sestu, 09042, Monserrato, Cagliari, Italy

P1-03 REALIZATION AND CHARACTERIZATION OF A MICRO-CANTILEVER SENSOR BASED ON MAGNETIC DIPOLARLY-COUPLED NANOSTRUCTURED MULTILAYERS FEATURING WIRELESS ACTUATION FOR LIQUID ENVIRONMENTS

A. Chiolerio¹, I. Ferrante², C. Ricciardi², R. Castagna², A. Ricci², S. Marasso², P. Tiberto³, P. Allia²

¹Physics Department, Politecnico di Torino, Corso Duca degli Abruzzi 24, 10129 Torino, Italy; ²Materials Science and Chemical Engineering Department, Politecnico di Torino, Corso Duca degli Abruzzi 24, 10129 Torino, Italy;

³Electromagnetism Division, iNRiM, Strada delle Cacce 91, 10135 Torino, Italy

P1-04 FePt NANODOTS ARRAYS BY SELF-ASSEMBLING OF POLYSTYRENE NANOSPHERES

P. Tiberto¹, L. Boarino¹, F. Celegato¹, M. Coisson¹, N. De Leo¹, F. Vinai¹, F. Albertini², F. Casoli², P. Ranzieri², P. Allia³

¹INRIM, Electromagnetics, 10135 Torino, Italy; ²IMEM-CNR, I-43124 Parma, Italy; ³DISMIC, Politecnico di Torino, I-10129 Torino, Italy

P1-05 MAGNETISATION REVERSAL PROCESS OF FePt/Fe₃Pt COMPOSITE NANOSTRUCTURES FOR ULTRAHIGH-DENSITY MAGNETIC RECORDING

F. Casoli, P. Lupo, L. Nasi, S. Fabbrici, F. Bolzoni, R. Cabassi, F. Albertini

IMEM-CNR Viale Usberti 37/A 43124 Parma-Italy

P1-06 BALL MILLING SYTHESIZED MOFs FOR EFFECTIVE REMOVAL OF ORGANOSULFUR COMPOUNDS FROM LIQUID FUELS: SYNTHESIS AND CHARACTERIZATION.

M. Pilloni¹, M. Pentimalli¹, S. Lai², F. Sini², F. Padella¹

¹ENEA, C.R. Casaccia, UTTMAT, Lab Chimica e Tecnologie dei Materiali, via Anguillarese 301, 00123 Roma, Italy; ²Università degli Studi di Cagliari, Dip. Scienze Chimiche, s.p. Monserrato-Sestu Km 0.700, 09042 Monserrato (Ca), Italy

- P1-07 **LOW TEMPERATURE SYNTHESIS OF FePt L₁₀ NANOPARTICLES INTO SBA-15 NANOPORES.**
A. Capobianchi¹, G. Varvaro¹, D. Peddis², A. Ardu², E. Agostinelli¹ and C. Cannas²
¹Istituto di Struttura della Materia-CNR, Via Salaria Km 29.300, Montelibretti, 00015 Rome, Italy; ²Università di Cagliari Dipartimento di Scienze Chimiche S.S. 554 bivio per Sestu 09042 Monserrato (CA), Italy
- P1-08 **MAGNETIC AND STRUCTURAL INVESTIGATION OF Fe₅₀Co₅₀ THIN FILMS ACROSS THE TRANSITION FROM IN-PLANE TO OUT-OF-PLANE ANISOTROPY**
M. Tamisari¹, G. Ausanio², V. Guidi¹, V. Iannotti², I. Neri¹, F. Ronconi¹, F. Spizzo¹, P. Vavassori^{1,3}
¹Department of Physics and CNISM, University of Ferrara, 44122 Ferrara, Italy. ²CNR-SPIN and Dept. of Physical Science, Federico II University, 80125 Naples, Italy. ³CIG nanoGUNE consolidator, Tolosa Hiribidea, 76 E-20018 Donostia, San Sebastian, Spain
- P1-09 **Co-NANOCATALYSTS FOR HYDROGEN PRODUCTION BY HYDROLYSIS OF NaBH₄**
R. Fernandes, N. Bazzanella, N. Patel, A. Miotello
Dipartimento di Fisica, Università degli Studi di Trento, I-38123 Povo Trento (Italy)
- P1-10 **NANOSTRUCTURED CERIA THIN FILMS PREPARED BY SOL-GEL DIP COATING: SYNTHESIS AND CHARACTERIZATION**
M.C. Ferrara, A.M. Laera, L. Pilloni¹, E. Piscopiello, S. Mazzarelli and L. Tapfer
ENEA, Technical Unit for Materials Technologies of Brindisi Research Centre, Strada Statale 7 "Appia" Km 706, I-72100 Brindisi, Italy; ¹ENEA, Technical Unit for Materials Technologies of Casaccia Research Centre Via Anguillarese, 301 -00123 S. Maria di Galeria (Rome), Italy.
- P1-11 **INFLUENCE OF SOL COMPOSITION ON PHOTOCATALYTIC ACTIVITY AND HYDROPHILIC PROPERTIES OF NANOCRYSTALLINE TITANIA THIN FILMS PREPARED BY SOL-GEL DIP COATING**
M.C. Ferrara, L. Pilloni¹, A. Mevoli, C. Blasi and L. Tapfer
ENEA, Technical Unit for Materials Technologies of Brindisi Research Centre, Strada Statale 7 "Appia" Km 706, I-72100 Brindisi, Italy; ¹ENEA, Technical Unit for Materials Technologies of Casaccia Research Centre Via Anguillarese, 301 -00123 S. Maria di Galeria (Rome), Italy.
- P1-12 **FORMATION OF HOLLOW NANOPARTICLES THROUGH DIFFUSIVE PHASE TRANSITION ACROSS A MEMBRANE**
L. Pasquini¹, A. Montone,² E. Callini,¹ M. Vittori Antisari², E. Bonetti¹
¹ Univ. of Bologna, Department of Physics and CNISM, v. Berti-Pichat 6/2, 40127 Bologna, Italy; ²ENEA, MAT-COMP Research Centre of Casaccia, v. Anguillarese 301, 00123 Rome, Italy.

- P1-13 **MICROSTRUCTURAL EVOLUTION OF MgH₂ DURING REPEATED H₂ ABSORPTION-DESORPTION CYCLES.**
A. Montone, A. Aurora, D. Mirabile Gattia and M. Vittori Antisari
ENEA, Technical Unit on Materials Technology Research Centre of Casaccia,
Via Anguillarese 301, 00123 Rome, Italy.

Wednesday, September 7th (h. 14:40)

SESSION P2

- P2-01 **GLASS FORMING ABILITY AND MAGNETIC PROPERTIES OF FeCoNbSiBP SYSTEM.**
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- P2-02 **SYNTHESIS AND PATTERNING OF GOLD NANORODS: TOWARDS NEW FUNCTIONAL MATERIALS.**
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- P2-03 **STUDY ON HEAT TRANSFER POTENTIALITIES OF SELF-REWETTING NANOFLUIDS PREPARED WITH NANOHORNS**
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- P2-04 **HYDROGENOGRAPHY OF MAGNESIUM NANOPARTICLES DECORATED WITH PALLADIUM-**
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- P2-05 **MAGNETIC NANOPARTICLES DISTRIBUTION AND MAGNETIC PROPERTIES OF BIOMIMETIC SCAFFOLDS FOR BONE-TISSUE ENGINEERING.**
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- P2-06 **NANOTOXICITY DURING EMBRYONIC DEVELOPMENT**
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- P2-15 **MECHANICAL BEHAVIOR OF SUBMICROCRYSTALLINE SUPPORTED AI THIN FILMS INVESTIGATED BY A VIBRATING REED ANALYSER.**
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