

1: Registration & Welcome Cocktail

Time: Sunday 16:00–20:30

Location: Arches

Begin of Registration (16:00 - 19:30)**Cocktail (18:30 - 20:30)****2: Entrance and Welcome**

Time: Monday 8:30–9:00

Location: Sorbonne Great Amphi.

Entrance and Welcome**3: Opening Address**

Time: Monday 9:00–9:30

Location: Sorbonne Great Amphi.

Opening**PL1: Plenary Session 1**

Chaired by J. J. Greffet, Palaiseau, FR, H. Brune, Lausanne, CH

Time: Monday 9:30–12:00

Location: Sorbonne Great Amphi.

Plenary

PL1.1 MON 9:30

Atom-by-Atom Engineering of Tailored Nanomagnets and Atomic-Scale Spintronic Devices — ●ROLAND WIESENDANGER — University of Hamburg, Hamburg, Germany

Plenary

PL1.2 MON 10:15

Plasmonics: an Innovative Nanoscience for Nano-Imaging, Nano-Analysis and Nano-Materials —

●SATOSHI KAWATA — Osaka University & RIKEN, Japan

Break**Plenary**

PL1.3 MON 11:15

The Magnetism of Atoms and Nanostructures on Surfaces: an Atomic-Scale Perspective — ●ANDREAS HEINRICH — IBM Almaden Research Center, San Jose, USA

SO-1: STM and growth process on surfaces I, silicene

Chaired by F. Silly, Gif sur Yvette, FR

Time: Monday 14:00–16:15

Location: Amphi. Portier

SO-1.1 MON 14:00

Microscopic Structure of Mn Atom Chains on the Si(001) Surface Investigated by Scanning Tunneling Microscopy — ●ANDREAS FUHRER, FRANK RUESS, and NIKOLAJ MOLL — IBM Research, Zürich Research Laboratory, Säumerstrasse 4, 8803 Rüschlikon

SO-1.2 MON 14:15

Atomic Processes of Fe Nanoisland Nucleation and Growth on Au(111) — ●ANDREA LI BASSI^{1,2}, FABIO DONATI^{1,3}, ALEXANDER MAIROV¹, MATTEO PASSONI¹, and CARLO S. CASARI^{1,2} — ¹Dipartimento di Energia, Politecnico di Milano, via Ponzio 34/3, I-20133 Milano (Italy) — ²CNST - Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, via Pascoli 70/3, I-20133 Milano (Italy) — ³present address: Ecole Polytechnique Fédérale de Lausanne, Institute of Condensed Matter Physics, PHB - Station 3, CH-1015 Lausanne (Switzerland)

SO-1.3 MON 14:30

Nanoscale Si Template for the Growth of Self-organized Co Nanolines — ●LAURENCE MASSON¹, LISA MICHEZ¹, GEOFFROY PRÉVOT², ROMAIN BERNARD², HAÏK JAMGOTCHIAN¹, HOUDA SAHAF³, ERIC MOYEN¹,

FRÉDÉRIC LEROY¹, LOÏC ASSAUD¹, LIONEL SANTINACCI¹, and MARGRIT HANBÜCKEN¹ — ¹CINaM, Aix-Marseille Université, Marseille, France — ²INSP, Université Pierre et Marie Curie, Paris, France — ³PCMB, Université François Rabelais, Tours, France

Invited

SO-1.4 MON 14:45

Unusual Island Formations of Silver and Iridium on Germanium Studied by LEEM and STM — ●SHIRLEY CHIANG, CORY MULLET, MARSHALL VAN ZIJLL, BRET STENGER, EMILIE HUFFMAN, DYLAN LOVINGER, and WILLIAM MANN — University of California, Davis, CA, USA

SO-1.5 MON 15:15

Single one-dimensional nanolines and atom chains on the semiconducting Si(001) surface — ●SIGRUN A. KÖSTER¹, FRANÇOIS BIANCO¹, JAMES G. H. OWEN¹, DAVID R. BOWLER², and CHRISTOPH RENNER¹ — ¹Université de Genève, DPMC, Genève, Suisse — ²University College London/London Centre of Nanotechnology, London, UK

SO-1.6 MON 15:30

Silicene: a new crystalline form of silicon

— •DANIELE CHIAPPE¹, CARLO GRAZIANETTI^{1,2}, GRAZIA TALLARIDA¹, MARCO FANCIULLI^{1,2}, ALESSANDRO MOLLE¹, and GUY LE LAY³ — ¹Laboratorio MDM, IMM-CNR, via C. Olivetti 2, I-20864 Agrate Brianza (MB), Italy — ²Dipartimento di Scienza dei Materiali, Università degli Studi di Milano Bicocca, via R. Cozzi 53, I-20126, Milano (MI), Italy — ³Aix-Marseille University, CNRS-CINaM, Campus de Luminy, Case 913, 13288, Marseille Cedex 09, France

SO-1.7 MON 15:45

Epitaxial silicene: 2D silicon with π electronic bands

— •ANTOINE FLEURENCE, RAINER FRIEDLEIN, TAIZUKE OZAKI, YING WANG, and YUKIKO YAMADA-TAKAMURA

— Japan Advanced Institute of Science and Technology Asahidai 1-1 Nomi, Ishikawa 923-1292 Japan

SO-1.8 MON 16:00

From Silicene Discovery to Graphene-Like Epitaxial Germanium Sheets

— •GUY LE LAY¹, PATRICK VOGT², PAOLA DE PADOVA³, CLAUDIO QUARESIMA³, JOSÉ AVILA⁴, EMMANOUIL FRANTZESKAKIS⁴, MARIA CARMEN ASENSIO⁴, ANDREA RESTA¹, and BÉNÉDICTE EALET¹ — ¹Aix-Marseille University, CNRS-CINaM, Campus de Luminy, Case 913, 13288, Marseille Cedex 09, France. — ²Technische Universität Berlin, Hardenbergstrasse 36, 10623 Berlin, Germany. — ³CNR-ISM, via Fosso del Cavaliere 100, Rome, Italy. — ⁴Synchrotron SOLEIL, Saint Aubin, BP 48 91192 Gif-sur-Yvette, France.

NE-1: Molecular quantum electronics and spintronics

Chaired by R. Berndt, Kiel, DE

Time: Monday 14:00–16:00

Location: Amphi. Richet

Invited

NE-1.1 MON 14:00

Molecular Quantum Spintronics — •WOLFGANG WERNSDORFER — Institut Néel, CNRS, Grenoble, France

NE-1.2 MON 14:30

Quantum interference in molecular charge transport

— •CONSTANT GUÉDON¹, HENNIE VALKENIER², TROELS MARKUSSEN³, KRISTIAN THYGESEN³, JAN HUMMELEN², and SENSE JAN VAN DER MOLEN¹ — ¹Kamerlingh Onnes Laboratorium, Leiden University, Niels Bohrweg 2, 2333 CA Leiden, The Netherlands — ²Stratingh Institute for Chemistry and Zernike Institute for Advanced Materials, University of Groningen, Nijenborgh 4, 9747 AG Groningen, The Netherlands — ³Center for Atomic-scale Materials Design (CAMD), Department of Physics, Technical University of Denmark, DK-2800 Kgs. Lyngby, Denmark

NE-1.3 MON 14:45

Tracking Amino Acids inside Chiral Quantum Cor-

inals — •ESMERALDA YITAMBEN, REES RANKIN, ERIN ISKI, JEFFREY GREELEY, RICHARD ROSENBERG, and NATHAN GUISENGER — Argonne National Laboratory, Argonne, IL, USA

NE-1.4 MON 15:00

Resonant Tunneling Spectroscopy of Heteropoly

Compounds — •BORIS BUDANOV, EVGENII BALASHOV, FEDOR DALIDCHIK, and SERGEI KOVALEVSKII — N. N. Semenov Institute of Chemical Physics of Russian Academy of Sciences, Moscow, Russia

NE-1.5 MON 15:15

Manipulating Molecular Kondo Effect by Chemical

Reactions — •HOWON KIM³, YUNHEE CHANG², SOON-

HYEONG LEE¹, MIN HUI CHANG¹, YONG-HYUN KIM², and SE-JONG KAHNG¹ — ¹Department of Physics, Korea University, 136-713, Seoul, Republic of Korea — ²Graduate School of Nanoscience and Technology (WCU), KAIST, 305-701, Daejeon, Republic of Korea — ³Division of Nanoscale Science, The Institute for Solid State Physics, The University of Tokyo, 5-1-5, Kashiwa-no-ha, Kashiwa, Chiba, 277-8581, Japan

NE-1.6 MON 15:30

Fractional quantum conductance in silicon

nanosandwiches — NIKOLAY BAGRAEV, LEONID KLYACHKIN, •ANDREY KUDRYAVTSEV, and ANNA MALYARENKO — Ioffe Physical-Technical Institute of the Russian Academy of Sciences, St. Petersburg, Russia

NE-1.7 MON 15:45

Light Triggered Molecular Electronics in the 10-

100nm Size Range — •VINA FARAMARZI¹, JEAN-FRANÇOIS DAYEN¹, BERNARD DOUDIN¹, CORINNA RAIMONDO², PAOLO SAMORI², FEDERICA REINDERS³, MARCEL MAYOR^{3,4}, CÉLINE ETRILLARD⁵, JEAN-FRANÇOIS LÉTARD⁵, FRÉDÉRIC NIESS⁶, EMILIE MOULIN⁶, MOUNIR MAALOU⁶, and NICOLAS GIUSEPPONE⁶ — ¹DMONS group, Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), Strasbourg, France. — ²Nanochemistry Lab, Institut de Science et d'Ingénierie Supramoléculaires (ISIS), Strasbourg, France. — ³Department of Chemistry, University of Basel, Basel, Switzerland. — ⁴Karlsruhe Institute of Technology (KIT), Institute for Nanotechnology, Karlsruhe, Germany. — ⁵CNRS, Université Bordeaux, ICMCB, Groupe des Sciences Moléculaires, Pessac, France. — ⁶Institut Charles Sadron (ICS), Strasbourg, France.

SP-1: SPM and magnetism I

Chaired by A. Schwarz, Hamburg, DE

Time: Monday 14:00–16:15

Location: Pavillon 1

SP-1.1 MON 14:00

Imaging magnetic vortices with a single NV spin scanning probe magnetometer — ●LOÏC RONDIN¹, JEAN-PHILIPPE TETIENNE¹, STANISLAS ROHART², ANDRÉ THIAVILLE², JEAN-FRANÇOIS ROCH¹, and VINCENT JACQUES¹ — ¹Laboratoire de Photonique Quantique et Moléculaire, Ecole Normale Supérieure de Cachan and CNRS UMR 8537, 94235 Cachan Cedex, France — ²Laboratoire de Physique des Solides, Université Paris-Sud and CNRS UMR 8502, 91405 Orsay, France

SP-1.2 MON 14:15

Scanning Tunneling Microscopy Study of K-doped Iron Selenide Superconductor Film Grown by MBE — ●XI CHEN¹, WEI LI¹, KE HE², XUCUN MA², and QI-KUN XUE¹ — ¹Department of Physics, Tsinghua University, Beijing 100084, China — ²Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China

SP-1.3 MON 14:30

Visualizing the Kondo physics in a two-dimensional molecular Kondo lattice — ●YING JIANG^{1,2}, YAN-NING ZHANG², JUEXIAN CAO², RUQIAN WU², and WILSON HO^{2,3} — ¹International Center for Quantum Materials, Peking University, Beijing, P.R.China 100871 — ²Department of Physics and Astronomy, University of California, Irvine, CA 92697-4575 — ³Department of Chemistry, University of California, Irvine, CA 92697-4575

SP-1.4 MON 14:45

Tunable Kondo resonance of Co dimers on Ag(111) by engineering of the local atomic environment — ●DAVID SERRATE¹, MARÍA MORO¹, MARTEN PIANTEK², JOSÉ IGNACIO PASCUAL³, and MANUEL RICARDO IBARRA¹ — ¹Instituto de Nanociencia de Aragón, University of Zaragoza, Spain — ²Instituto de Ciencia de Materiales de Aragón, CSIC-University of Zaragoza, Spain — ³Institut

für Experimentalphysik, Freie Universität Berlin, Germany

Invited

SP-1.5 MON 15:00

Nanoscale Magnetic Resonance Detection and Imaging: Progress and Challenges — ●DANIEL RUGAR, JOHN MAMIN, and MARK SHERWOOD — IBM Research Division, San Jose, CA, USA

SP-1.6 MON 15:30

Valence State Manipulation of Single Fe Impurities in GaAs by STM — ●JUANITA BOCQUEL¹, VICTORIA KORTAN², RICHARD CAMPION³, BRIAN GALLAGHER³, MICHAEL FLATTÉ², and PAUL KOENRAAD¹ — ¹Department of Applied Physics, Eindhoven University of Technology, Eindhoven, The Netherlands — ²Optical Science and Technology Center and Department of Physics and Astronomy, University of Iowa, Iowa City, Iowa, USA — ³School of Physics and Astronomy, University of Nottingham, Nottingham, United Kingdom

SP-1.7 MON 15:45

Vibrational Excitations in Single Bis(phthalocyaninato) Lanthanide Molecules Studied with Scanning Tunneling Microscopy and Spectroscopy — ●AIDI ZHAO, CHUNSHENG ZHOU, SHULAI LEI, YINGBO ZHAO, HUAN SHAN, QUNXIANG LI, BING WANG, and JIANGUO HOU — Hefei National Laboratory for Physical Sciences at Microscale, University of Science and Technology of China, Hefei, China

SP-1.8 MON 16:00

Maze Like Surface Reconstruction and Superconductivity of Parent Compound SrFe₂As₂ Observed by STM/STS — ●MICHAEL DREYER, SHANTA SAHA, and JOHNPIERRE PAGLIONE — University of Maryland, College Park, Maryland, USA

SA-1: Molecular self-assembly and electronic properties

Chaired by O. Pluchery, Paris, FR

Time: Monday 14:00–16:00

Location: Pavillon 3

SA-1.1 MON 14:00

Dispersion and Localization of Electronic States at a Ferrocene/Cu(111) Interface — BENJAMIN W. HEINRICH, MIRCEA V. RASTEI, CRISTIAN IACOVITA, DUVAL MBONGO DJIMBI, CARLO MASSOBRIO, MAURO BOERO, and ●LAURENT LIMOT — Institut de Physique et Chimie des Matériaux de Strasbourg, Université de Strasbourg, CNRS, 67034 Strasbourg, France

SA-1.2 MON 14:15

Intramolecular charge distribution in a doped organic electron acceptor: Na-TCNQ on Au(111) — ●TOBIAS R. UMBACH¹, ISABEL FERNÁNDEZ-TORRENTE¹,

MICHAEL KLEINERT¹, MATS PERSSON², RICCARDO RURALI³, JOSE I. PASCUAL¹, and KATHARINA J. FRANKE¹ — ¹Institut für Experimentalphysik, Freie Universität Berlin, Arnimallee 14, 14195 Berlin, Germany — ²The Surface Science Research Center, The University of Liverpool, L69 3BX, United Kingdom — ³Institut de Ciencia de Materials de Barcelona (ICMAB-CSIC), Campus de Bellaterra, 08193 Bellaterra (Barcelona), Spain

SA-1.3 MON 14:30

Development of Organic Spacer Layers for the Electronic Decoupling of Molecules from Metallic Substrates — ●THOMAS WHITE¹, YELIANG WANG², SARA

FORTUNA³, STEFANO FABRIS³, KLAUS KERN⁴, and GIOVANNI COSTANTINI¹ — ¹Department of Chemistry, University of Warwick, Coventry, United Kingdom. — ²Institute of Physics, Chinese Academy of Sciences, Beijing, P. R. China. — ³CNR-IOM DEMOCRITOS, Theory@Elettra Group, and SISSA, Trieste, Italy. — ⁴Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany.

SA-1.4 MON 14:45

Structure and electronic properties of a cobalt phthalocyanine/graphene/Ir(111) system — •ELIZABETA CAVAR¹, SAMUEL BOUVRON¹, PHILIPP ERLER¹, PHILIPP LEICHT¹, ALEXEI B. PREOBRAJENSKI², and MIKHAIL FONIN¹ — ¹Fachbereich Physik, Universität Konstanz, 78457 Konstanz, Germany — ²MAX-Lab, Lund University, 223 63 Lund, Sweden

SA-1.5 MON 15:00

Surface state electron confinement by nanoporous networks: from isolated states to tunable bands — •NENAD KEPČIJA¹, FLORIAN KLAPPENBERGER¹, WOLFGANG KRENNER¹, JAVIER GARCIA DE ABAJO², and JOHANNES V. BARTH¹ — ¹Physik Department E20, TU München, Germany — ²Instituto de Optica - CSIC, Serano 121, 28006 Madrid, Spain

SA-1.6 MON 15:15

Asymmetric force field on PTCDA on Cu(111) studied by three-dimensional bimodal dynamic force spectroscopy at room temperature — •SHIGEKI KAWAI, THILO GLATZEL, REMY PAWLAK, ALEXIS BARATOFF, and ERNST MEYER — Department of Physics, University of Basel, Klingelbergstr. 82, 4056 Basel Switzerland

SA-1.7 MON 15:30

Structural configuration dependent magnetic and electronic properties of FePc long range ordered chains on the Au(110) substrate — •PIERLUIGI GARGIANI¹, ROBERTO BIAGI², SILVIO MODESTI³, SARA FORTUNA⁴, STEFANO FABRIS⁴, CARLO MARIANI¹, and MARIA GRAZIA BETTI¹ — ¹Università di Roma "La Sapienza", Roma, Italy — ²Dipartimento di Fisica, Università di Modena e Reggio Emilia, Modena, Italy — ³Dipartimento di Fisica, Università di Trieste, Trieste, Italy — ⁴CNR-IOM DEMOCRITOS, Theory@Elettra group, Trieste, Italy

SA-1.8 MON 15:45

Electronic structure studies of thiophene molecules on Fe/Au(111) surface — •MADHURA MARATHE and SHOBHANA NARASIMHAN — Theoretical Sciences Unit, Jawaharlal Nehru Center for Advanced Scientific Research, Bangalore, India - 560064.

CC-1: In situ investigations, molecular assemblies and solid-liquid interfaces

Chaired by N. Nilius, Berlin, DE

Time: Monday 14:00–16:15

Location: Pavillon 4

CC-1.1 MON 14:00

Fischer-Tropsch reaction on Co(0001) followed in situ at high pressures with STM and SXRD — •VIOLETA NAVARRO PAREDES¹, SANDER B. ROOBOL¹, RICHARD VAN RIJN^{1,2}, OLIVIER BALMES², DIDIER WERMEILLE², ANDREA RESTA², ROBERTO FELICI², SANDER P. VAN BAVEL³, and JOOST W.M. FRENKEN¹ — ¹Kamerlingh Onnes Laboratory, Leiden University, The Netherlands. — ²Beamline ID3, ESRF, Grenoble, France. — ³Shell Technology Centre Amsterdam, The Netherlands.

CC-1.2 MON 14:15

Kinetics of gas adsorption on gold nanoparticles in catalysts, real-time monitored by plasmon resonance investigation — •YVES BORENSZTEIN¹, LAURENT DELANNOY², CATHERINE LOUIS², BEN VAN DUPPEN¹, and RUBEN BARRERA³ — ¹Institute for NanoScience in Paris, Univ. PM Curie - CNRS, Paris, France — ²Laboratoire de Reactivite de Surface, Univ. PM Curie - CNRS, Paris, France — ³Instituto de Fisica, UNAM, Mexico

CC-1.3 MON 14:30

Alkane Polymerization at One-Dimensionally Constrained Au(110) Surfaces: Role of (1x3) Reconstruction — •DINGYONG ZHONG^{1,2}, JÖRN-HOLGER FRANKE^{1,2}, SANTHOSH KUMAR PODIYANACHARI³, TOBIAS BLÖMKER³, HAIMING ZHANG^{1,2}, GERALD KEHR³, GER-

HARD ERKER³, HARALD FUCHS^{1,2}, and LIFENG CHI^{1,2} — ¹Physikalisches Institut, Universität Münster, Wilhelm-Klemm-Str. 10, 48149 Münster, Germany — ²Center for Nanotechnology (CeNTech), Universität Münster, Heisenbergstr. 11, 48149 Münster, Germany — ³Organisch-Chemisches Institut, Universität Münster, Corrensstr. 40, 48149 Münster, Germany

CC-1.4 MON 14:45

Polymeric Carbon Nitride Film Deposited On p-Type Semiconductors For Hydrogen Production From Water Splitting — •FLORENT YANG¹, VADYM KUZNIETSOV¹, STEVEN ORTHMANN¹, CHRISTOPH MERCHJANN¹, MICHAEL LUBLOW¹, ARNE THOMAS², MARKUS ANTONIETTI³, and THOMAS SCHEDEL-NIEDRIG¹ — ¹Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany — ²Technische Universität Berlin, Berlin, Germany — ³Max-Planck-Institut für Kolloid und Grenzflächenforschung, Potsdam, Germany

CC-1.5 MON 15:00

Surface Structure and Morphology in the Early Stages of Sulfidation of Silver in Solution Studied In Situ by ECSTM — •VINCENT MAURICE¹, NING LI^{1,2}, LORENA H KLEIN¹, and PHILIPPE MARCUS¹ — ¹Chimie ParisTech - CNRS, Paris, France — ²Saint-Gobain Recherche, Aubervilliers, France

CC-1.6 MON 15:15

Supramolecular organisation in organic-inorganic heterogeneous hybrid catalysts formed from polyoxometalate and zwitterionic polymer: an AFM investigation — ●GIJO RAJ, COLAS SWALUS, MICHEL DEVILLERS, and ERIC M. GAIGNEAUX — Institute of Condensed Matter and Nanosciences, Division MOlecules Solids and Reactivity, Université catholique de Louvain, B-1348, Louvain-la-Neuve, Belgium

CC-1.7 MON 15:30

Adsorption Geometry and Mobility of Co-Salen molecules on NiO — ●MATTHEW WATKINS¹, DAVID GAO², ALEXANDER SHLUGER^{1,2,3}, JOSEF GRENZ⁴, and ALEXANDER SCHWARZ⁴ — ¹London Centre for Nanotech-

nology, University College London, 17-19 Gordon Street, London WC1, UK — ²Department of Physics and Astronomy, University College London, Gower Street, London WC1E 6BT, UK — ³WPI-AIMR, Tohoku University, Katahira, Aoba-ku, Sendai, Japan — ⁴Institute of Applied Physics, University of Hamburg, Jungiusstrasse 11, 20355 Hamburg, Germany

Invited

CC-1.8 MON 15:45

Atomic Movies of Adsorbates at Solid-Liquid Interfaces: How Interface Fields and Coadsorbates Influence Surface Transport and Phase Formation — ●OLAF MAGNUSSEN — Kiel University, Institute of Experimental and Applied Physics, Olshausenstr. 40, 24098 Kiel, Germany

SN-1: Nanomagnetism I

Chaired by K. J. Franke, Berlin, DE

Time: Monday 14:00–16:15

Location: Amphi. Pasquier

SN-1.1 MON 14:00

MFM Study of the Magnetization Reversal in Single-Domain Nanowires — ●MUHAMMAD RAMZAN TABASUM¹, FATIH ZIGHEM¹, JOACIN DE LA TORRE MEDINA², LUC PIRAUX¹, and BERNARD NYSTEN¹ — ¹Institut de la matière condensée et des nanosciences (IMCN), Université Catholique de Louvain, 1348 Louvain-la-Neuve Belgium — ²Instituto de Fisica, Universidad Autonoma de San Luis Potosi, Av. Manuel Nava 6, Zona Universitaria, 78290 San Luis Potosi, SLP, Mexico

SN-1.2 MON 14:15

Local magnetoconductance properties of epitaxial spin-valves — ●MARIE HERVÉ, YANN CLAVEAU, SYLVAIN TRICOT, SOPHIE GUÉZO, SERGIO DI MATTEO, GABRIEL DELHAYE, BRUNO LÉPINE, ROMAIN HAMONOU, PHILIPPE SCHIEFFER, and PASCAL TURBAN — Département Matériaux Nanosciences, Université Rennes I; CNRS, UMR 6251, Campus de Beaulieu, Bât. 11C, 35042 Rennes cedex; France

SN-1.3 MON 14:30

Magnetization Reversal of Individual Co Nanoislands — ●SAFIA OUAZI, SEBASTIAN WEDEKIND, GUILLEMIN RODARY, HIROFUMI OKA, DIRK SANDER, and JÜRGEN KIRSCHNER — Max-Planck-Institut of Microstructure Physics, Weinberg 2, D-06120 Halle, Germany

SN-1.4 MON 14:45

Spin-dependent electronic structure of self-organized Co nanomagnets — ●KOEN SCHOUTEDEN¹, KOEN LAUWAET¹, ERWIN LIJNEN², DMITRIY MUZYCHENKO³, ARNOUT CEULEMANS², LIVIU CHIBOTARU², PETER LIEVENS¹, and CHRIS VAN HAESENDONCK¹ — ¹Laboratory of Solid-State Physics and Magnetism, KU Leuven, Leuven, Belgium — ²Division of Quantum Chemistry, KU Leuven, Leuven, Belgium — ³Faculty of Physics, Moscow State University, Moscow, Russia

SN-1.5 MON 15:00

Characterization and control of the dynamic dipolar coupling between magnetic nanodisks by MRFM — BENJAMIN PIGEAU¹, ●GRÉGOIRE DE LOUBENS¹, VLADIMIR NALETOV¹, OLIVIER KLEIN¹, KANAME MITSUZUKA², DANIEL LACOUR², MICHEL HEHN², STÉPHANE ANDRIEU², and FRANÇOIS MONTAIGNE² — ¹Service de Physique de l'Etat Condensé (CNRS URA 2464), CEA Saclay, 91191 Gif-sur-Yvette, France — ²Institut Jean Lamour, UMR CNRS 7198, Université H. Poincaré, 54506 Nancy, France

SN-1.6 MON 15:15

Magnetic Ultrathin Films: The Power of Electrochemistry — ●PHILIPPE ALLONGUE, FOUAD MAROUN, NICOLAS TOURNERIE, ANDREAS ENGELHARDT, and RAFEL NOVAK — Physique de la Matière Condensée, CNRS, Ecole Polytechnique, 91128 Palaiseau (France)

SN-1.7 MON 15:30

Spatially modulated tunnel magnetoresistance on the nanoscale — ●HIROFUMI OKA, KUN TAO, SEBASTIAN WEDEKIND, GUILLEMIN RODARY, VALERI STEPANYUK, DIRK SANDER, and JÜRGEN KIRSCHNER — Max-Planck-Institut of Microstructure Physics, Weinberg 2, D-06120 Halle, Germany

SN-1.8 MON 15:45

The thickness-dependent spin structure of Mn on Co/Cu(001) studied by spin-polarized scanning tunneling microscopy with bulk Fe ring probes — ●CHIBIN WU, JIANGING SONG, and WOLFGANG KUCH — Freie Universität Berlin, Institut für Experimentalphysik, Arnimallee 14, 14195 Berlin, Germany

SN-1.9 MON 16:00

Magnetic Properties of 2D Nano-islands subject to Applied Transverse Magnetic Fields and to their Domain Anisotropies: EFT Ising Model —

MICHEL ABOU GHANTOUS^{1,2} and ●ANTOINE KHATER¹ —
¹Laboratoire de Physique de L'Etat Condensé UMR 6087,
 UFR Sciences, Université du Maine, 72085 Le Mans, France

— ²Science Program, Physics, Texas A and M University at
 Qatar, Education City, PO Box 23874, Doha, Qatar

NO-1: Near-field imaging and spectroscopy

Chaired by Y. De Wilde, Paris, FR

Time: Monday 14:00–16:15

Location: Grand Amphi.

NO-1.1 MON 14:00

Active Apertureless Near-field Imaging (AANI) of Optical Plasmonic Distribution — ●BOAZ FLEISHMAN¹, HESHAM TAHA¹, and AARON LEWIS² — ¹Nanonics Imaging Ltd, Jerusalem, Israel — ²Hebrew University of Jerusalem, Jerusalem, Israel

NO-1.2 MON 14:15

Infrared Spectroscopy Beyond the Diffraction Limit: Chemical Imaging at the Nanoscale. — BASUDEV LAHIRI^{1,2}, GLENN HOLLAND¹, and ●ANDREA CENTRONE^{1,2} — ¹NIST, Center for Nanoscale Science and Technology, Gaithersburg, 100 Bureau Drive, Stop 6204, MD 20899, USA. — ²University of Maryland, Institute for Research in Electronics and Applied Physics, College Park, MD 20742, USA

Invited

NO-1.3 MON 14:30

Infrared Nanospectroscopy and Nanophotonics Based on Antennas and Transmission Lines — ●RAINER HILLENBRAND — CIC nanoGUNE, San Sebastian, Spain

NO-1.4 MON 15:00

Near-field thermal radiation scattered by a dipolar tip above a material — ●KARL JOULAIN¹, YANNICK DE WILDE², ARTHUR BABUTY², PIERRE-OLIVIER CHAPUIS³, and PHILIPPE BEN-ABDALLAH⁴ — ¹Institut Pprime, CNRS-UPR 3346, Université de Poitiers, France — ²Institut Langevin, ESPCI Paris Tech, France — ³CETHIL, CNRS, INSA de Lyon, Villeurbanne, France — ⁴Laboratoire Charles Fabry, UMR 8501, Institut d'Optique, CNRS, Université Paris-Sud, Palaiseau, France

NO-1.5 MON 15:15

High-intensity spot created by interference of Airy plasmons — ●ANGELA E. KLEIN¹, ALEXANDER

MINOVICH², NORIK JANUNTS¹, DRAGOMIR N. NESHEV², YURI S. KIVSHAR², ANDREAS TÜNNERMANN^{1,3}, and THOMAS PERTSCH¹ — ¹Institute of Applied Physics, Abbe Center of Photonics, Friedrich-Schiller-Universität Jena, Max-Wien-Platz 1, 07743 Jena, Germany — ²Nonlinear Physics Centre, Centre for Ultrahigh-bandwidth Devices for Optical Systems (CUDOS), Research School of Physics and Engineering, Australian National University, Canberra, ACT 0200, Australia — ³Fraunhofer Institute of Applied Optics and Precision Engineering, Albert-Einstein-Strasse 7, 07745 Jena, Germany

NO-1.6 MON 15:30

Near-field characterization of wavelength-selective dielectric-loaded surface plasmon polariton waveguides — ●GIULIO BIAGI¹, TOBIAS HOLMGAARD¹, KJELD PEDERSEN¹, JACEK FIUTOWSKI², and HORST-GÜNTER RUBAHN² — ¹Department of Physics and Nanotechnology, Aalborg Øst 9220, Denmark — ²Mads Clausen Institute, University of Southern Denmark, Alsion 2, DK-6400, Sønderborg, Denmark

NO-1.7 MON 15:45

Local Characterization of Photonic Structures by Near-field Scanning Optical Microscopy and Spectral Interferometry — ●JOHANNA TRAGARDH and HENKJAN GERSEN — HH Wills Physics Laboratory, University of Bristol, Tyndall Avenue, Bristol BS8 1TL, UK

NO-1.8 MON 16:00

Fluctuation-mediated Dynamics Control of Metallic Nanoparticles by Light Fields with Designed Spatio-Temporal Profiles — ●TAKUYA IIDA¹ and MAMORU TAMURA^{1,2} — ¹Nanoscience and Nanotechnology Research Center, Osaka Prefecture University, Sakai, Osaka Japan — ²Department of Physics and Electronics, Osaka Prefecture University, Sakai, Osaka, Japan

SC-1: Semiconductor quantum devices and mesoscopic physics

Chaired by M. Marangolo, Paris, FR

Time: Monday 14:00–16:00

Location: Salle du Conseil

SC-1.1 MON 14:00

High-Q submicron-diameter quantum-dot - microcavity pillars for cavity QED experiments — ●NIELS GREGERSEN¹, MATTHIAS LERMER², FLORIAN DUNZER², STEPHAN REITZENSTEIN², SVEN HÖFLING², JESPER MØRK¹, LUKAS WORSCHCH², MARTIN KAMP², and ALFRED FORCHEL² — ¹DTU Fotonik, Department of

Photonics Engineering, Technical University of Denmark, Ørstedes Plads, Building 343, DK-2800 Kongens Lyngby, Denmark — ²Technische Physik, Wilhelm Conrad Röntgen Research Center for Complex Material Systems, Universität Würzburg, Am Hubland, D-97074 Würzburg, Germany

SC-1.2 MON 14:15

Coupled microdisk-ring cavity for quantum-dot laser structure — SUNG-YIN TSAI, TE-EN TZENG, TING-YA HUANG, and •TSONG-SHENG LAY — Department of Photonics, National Sun Yat-Sen University, Kaohsiung 804, Taiwan

SC-1.3 MON 14:30

Optical wavelength shifting using resonant nonlinearities in THz quantum cascade lasers — •PIERRICK CAVALIÉ¹, JULIEN MADÉO¹, JOSHUA FREEMAN¹, JEAN MAYSONNAVE¹, KENNETH MAUSSANG¹, HARVEY BEERE², DAVID RITCHIE², CARLO SIRTORI³, JÉRÔME TIGNON¹, and SUKHDEEP DHILLON¹ — ¹Laboratoire Pierre Aigrain, Ecole Normale Supérieure, UMR 8551 CNRS, University P. et M. Curie, University D. Diderot, 24 rue Lhomond, 75005 Paris, France — ²Semiconductor Physics Group, University of Cambridge, JJ Thomson Avenue, Cambridge CB3 0HE, UK — ³Matériaux et Phénomènes Quantiques, Université Denis Diderot - Paris 7, UMR 7162 CNRS, 75013 Paris, France

SC-1.4 MON 14:45

Multiphoton excitation of quantum dot in presence of Time Dependent fields for bioimaging. — •PRADIP JHA, SIDDHARTHA LAHON, and MAN MOHAN — Department of Physics and Astrophysics, University of Delhi, Delhi 110007, India.

SC-1.5 MON 15:00

Integrated injection seeded THz Quantum Cascade Laser for time-domain spectroscopy —

•J. MAYSONNAVE¹, N. JUKAM¹, M.S.M. IBRAHIM², K. MAUSSANG¹, P. CAVALIÉ¹, J.R. FREEMAN¹, J. MANGENEY¹, P. DEAN², S.P. KHANNA², D.P. STEENSON², E.H. LINFIELD², A.G. DAVIES², S.S. DHILLON¹, and J. TIGNON¹ — ¹Laboratoire Pierre Aigrain, Ecole Normale Supérieure, CNRS (UMR 8551), Université P. et M. Curie, Université D. Diderot, 24 rue Lhomond 75231 Paris Cedex 05, France. — ²School of Electronic and Electrical Engineering, University of Leeds, Woodhouse Lane, Leeds LS9 2JT, U.K.

SC-1.6 MON 15:15

Positive and Negative Coulomb Drag in Vertically-Coupled Quantum Wires — •DOMINIQUE LAROCHE^{1,2}, GUILLAUME GERVAIS¹, MIKE LILLY², and JOHN RENO² — ¹McGill University, Montreal, Canada — ²Sandia National Laboratories, Albuquerque, USA

SC-1.7 MON 15:30

Factorial Cumulants Reveal Interactions in Counting Statistics — •DANIA KAMBLY, CHRISTIAN FLINDT, and MARKUS BÜTTIKER — Département de Physique Théorique, Université de Genève, CH-1211 Genève, Switzerland

SC-1.8 MON 15:45

Bound states and electron localization in low-dimensional semiconductor quantum point contacts — •IRINA YAKIMENKO and KARL-FREDRIK BERGGREN — Linköping University, Linköping, Sweden

13: Coffee Break

Time: Monday 16:15–16:45

Location: Coffee Break

Coffee Break

PO1: Poster Session 1: Molecular and nano-electronics / Molecular self-assembly

Time: Monday 17:00–19:00

Location: PO Cordeliers Réfectoire

PO1.1 MON 17:00

Transport measurements on single gold nanoparticle devices with molecular tunneling barriers — •NINET BABAJANI¹, SILVIA KARTHÄUSER¹, CORINNA KAULEN², MELANIE HOMBERGER², ULRICH SIMON², and RAINER WASER¹ — ¹Peter Grünberg Institut (PGI-7) and JARA-FIT, Forschungszentrum Jülich GmbH, Germany — ²Inorganic Chemistry (IAC) and JARA-FIT, RWTH Aachen University, Germany

PO1.2 MON 17:00

Preparation and Dielectric Characterization of TiO₂ Carbopol Nanocomposite for Electrical Use — •HADDADINE NABILA¹, CHALAL SAMIA¹, DRIA ZAKIA¹, BOUSLAH NAÏMA¹, BENABOURA AHMED¹, and KERFAH AHMED² — ¹Laboratoire de Synthèse Macromoléculaire et Thio-organique Macromoléculaire. Faculté de Chimie, U.S.T.H.B. BP:32, El Alia. Bab Ezzouar. Alger. Algérie.16111 — ²Laboratoire de Cristallographie. Faculté de Chimie, U.S.T.H.B. BP:32, El Alia. Bab Ezzouar. Alger.

Algerie.16111

PO1.3 MON 17:00

SU(4) Symmetry for Strongly Correlated Electrons : Kondo and Mixed-valence Effects in Terms of Gell-Mann Matrices — •KONSTANTIN KIKOIN — School of Physics and Astronomy, Tel Aviv University, Tel Aviv, 69978, Israel

PO1.4 MON 17:00

Effects of partial Eu doping on crystalline and spin structures of BiFeO₃ nanoparticles — •CHIN SHAN LUE¹, J. W. LIN¹, and J. G. LIN² — ¹Department of Physics, National Cheng Kung University, Tainan 70101, Taiwan — ²Center for Condensed Matter Sciences, National Taiwan University, Taipei 106, Taiwan

PO1.5 MON 17:00

Magnetic moments, one-parameter pumping and memory storage in nanoscopic rings — •MICHELE

CINI¹ and ENRICO PERFETTO² — ¹(1)* Dipartimento di Fisica, Università di Roma Tor Vergata, Via della Ricerca Scientifica 1, IT-00133 Rome, Italy and Istituto Nazionale di Fisica Nucleare, Laboratori Nazionali di Frascati, Via E. Fermi 40, IT-00044 Frascati, Italy — ²Dipartimento di Fisica, Università di Roma Tor Vergata, Via della Ricerca Scientifica 1, IT-00133 Rome

PO1.6 MON 17:00

Ballistic Electron Emission Microscopy (BEEM): Local Probe of Electronic Properties at buried Interfaces — ●SOPHIE GUÉZO, PASCAL TURBAN, FRANCINE SOLAL, SORAYA ABABOU-GIRARD, SERGIO DI MATTEO, BRUNO LÉPINE, GABRIEL DELHAYE, SYLVAIN TRICOT, and PHILIPPE SCHIEFFER — Département Matériaux-Nanosciences, Institut de Physique de Rennes, Rennes, France

PO1.7 MON 17:00

Molecular Surface Acceptors on Hydrogen-terminated Diamond: Energy Level Scheme and Doping Efficiency — MARK EDMONDS¹, DANIEL LANGLEY¹, YAOU SMETS¹, ANTON TADICH², CHRISTIAN STARK¹, KEVIN RIETWYK¹, PETER SHARP³, ALEX SCHENK¹, MARTINA WANKE⁴, QI-HUI WU¹, LOTHAR LEY⁴, and ●CHRIS PAKES¹ — ¹La Trobe University, Melbourne, Australia — ²Australian Synchrotron, Melbourne, Australia — ³University of Nottingham, Nottingham, U.K. — ⁴University of Erlangen, Erlangen, Germany

PO1.8 MON 17:00

STM Images and STS of Electrons Confined in a Deformed Quantum Corral — ●AKIRA TAMURA, SHIGENORI MITSUOKA, and TAKUYA KUMAGAI — Saitama Institute of Technology, Saitama, Japan

PO1.9 MON 17:00

Experimental Observation of the Triplet Spin-Valve-Effect in Superconductor/Ferromagnet Proximity Thin-Film Heterostructure — ●VLADIMIR ZDRAVKOV^{1,2}, JAN KEHRLE¹, GÜNTER OBERMEIER¹, DANIEL LENK¹, HANS-ALBRECHT KRUG VON NIDDA¹, ANATOLIE SIDORENKO², REINHARD TIDECKS¹, LENAR TAGIROV^{1,3}, and SIEGFRIED HORN¹ — ¹Institut für Physik, Universität Augsburg, D-86159 Augsburg, Germany — ²Institute of Electronic Engineering and Nanotechnologies ASM, Kishinev 2028, Moldova — ³Solid State Physics Department, Kazan Federal University, 420008 Kazan, Russia

PO1.10 MON 17:00

STM Study of PTCDA on Sn/Si(111)- $2\sqrt{3} \times 2\sqrt{3}$ — ●HANMIN ZHANG, LEIF ERICSSON, and LARS JOHANSSON — Department of Physics, Karlstad University, SE-651 88 Karlstad, Sweden

PO1.11 MON 17:00

Quantum Interference in Molecular Junctions with Thermoelectric Applications — ●TROELS MARKUSSEN and KRISTIAN S. THYGESEN — Center for Atomic-scale Materials Design (CAMD), Department of Physics, Technical University of Denmark, DK-2800 Kgs. Lyngby, Denmark

PO1.12 MON 17:00

Fano resonances and delocalization effects in low dimensional systems with side-attached adatoms — ●RICCARDO FARCHIONI¹, GIUSEPPE GROSSO¹, and GIUSEPPE PASTORI PARRAVICINI² — ¹NEST-Istituto di Nanoscienze del CNR and Dipartimento di Fisica "E. Fermi", Università di Pisa, Pisa, Italy — ²NEST-Istituto di Nanoscienze del CNR and Dipartimento di Fisica "A. Volta", Università di Pavia, Pavia, Italy

PO1.13 MON 17:00

Chain-extended PEO based electrolytes for polymer lithium batteries; the addition of PEG-linked POSS as plasticizer — ●KEUN-BYOUNG YOON¹ and JAE YEON BAE² — ¹Department of Polymer Science and Engineering, Kyungpook National University, Daegu 702-701, Korea (Republic of) — ²Department of Polymer Science and Engineering, Kyungpook National University, Daegu 702-701, Korea (Republic of)

PO1.14 MON 17:00

Quantum Transport of Electronic Excitations in Wire Nano-Junctions: Phase Field Matching Theory Approach — ●DOMINIK SZCZESNIAK^{1,2} and ANTOINE KHATER¹ — ¹Laboratoire de Physique de l'Etat Condensé UMR 6087, Université du Maine, F-72085 Le Mans, France — ²Institute of Physics, Jan Dlugosz University in Czestochowa, Al. Armii Krajowej 13/15, 42218 Czestochowa, Poland

PO1.15 MON 17:00

Electron transport calculations of molecular junctions with different anchoring groups — ●SHIGERU TSUKAMOTO, VASILE CACIUC, NICOLAE ATODIRESEI, and STEFAN BRÜGEL — Peter Grünberg Institut & Institute for Advanced Simulation, Forschungszentrum Jülich and JARA, Jülich, Germany

PO1.16 MON 17:00

Tilted Binding of Diatomic Molecules to Metallo-Porphyrins on Au(111) — ●SOON-HYEONG LEE¹, HOWON KIM², WON-JUN JANG¹, JEONG HEUM JEON¹, and SE-JONG KAHNG¹ — ¹Department of Physics, Korea University, 1-5, Anam-dong, Seongbuk-gu, 136-713, Seoul, Korea — ²Division of Nanoscale Science, The Institute for Solid State Physics, The University of Tokyo, 5-1-5, Kashiwa-no-ha, Kashiwa, Chiba, 277-8581, Japan

PO1.17 MON 17:00

Tailoring two-dimensional multicomponent organic nanoarchitectures based on perylene derivative building block — ●FABIEN SILLY — CEA, IRAMIS, SPCSI, HyMN, F-91191 Gif sur Yvette, France

PO1.18 MON 17:00

Engineering Negative Differential Conductance with the Cu(111) Surface State — BENJAMIN W. HEINRICH¹, MIRCEA V. RASTEI¹, DEUNG-JANG CHOI¹, THOMAS FREDERIKSEN², and ●LAURENT LIMOT¹ — ¹Institut de Physique et Chimie des Matériaux de Strasbourg, Université de Strasbourg, CNRS, 67034 Strasbourg,

France — ²Donostia International Physics Center (DIPC), E-20018 Donostia-San Sebastián, Spain

PO1.19 MON 17:00

Theoretical developments in the interpretation of Scanning Tunneling Spectroscopy — ●MATTEO PASSONI¹, FABIO DONATI², ANDREA UCCELLO¹, and CARLO E. BOTTANI^{1,3} — ¹Dipartimento di Energia and NEMAS - Center for NanoEngineered Materials and Surfaces, Politecnico di Milano, via Ponzio 34/3, I-20133 Milano (Italy) — ²Ecole Polytechnique Fédérale de Lausanne, Institute of Condensed Matter Physics, PHB - Station 3, CH-1015 Lausanne — ³CNST - Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Via Pascoli 70/3 I-20133 Milano (Italy)

PO1.20 MON 17:00

Graphene as Barrier for Metal Diffusion in Metal/Organic Contact — BARIS YAVAS¹, KUAN ENG JOHNSON GOH¹, YUAN LI², CHRISTIAN NIJHUIS², KIAN PING LOH², and ●CEDRIC TROADEC¹ — ¹Institute of Materials Research and Engineering, Singapore — ²National University of Singapore, Singapore

PO1.21 MON 17:00

Switching of a Single Molecule: Pentacene on Si(100) — ●OLGA NEUCHEVA¹, FRANCISCO AMPLE¹, and CHRISTIAN JOACHIM^{1,2} — ¹Institute of Materials Research and Engineering, A*STAR (Agency for Science, Technology and Research), 3 Research Link, 117602, Singapore — ²Centre d'Elaboration de Matériaux et d'Etudes Structurales (CEMES-CNRS), BP 94347, 31055 Toulouse Cedex 4, France

PO1.22 MON 17:00

Structural studies of $\text{LiFe}_{1-x}\text{Mn}_x\text{PO}_4$ ($x=0, 0.1, 0.3$) nanofibers — ●CHUNG SOO KANG, CHEONG KIM, TAE JUN PARK, GI WON YOO, HYU JIN JEON, and JONG TAE SON — Department of Nano Polymer Science & Engineering, Korea National University of Transportation, Chungju, Chung-Buk, 380-702, Korea

PO1.23 MON 17:00

SPM-Investigations of the Spiropyran - Merocyanin Photoisomerization — ●ALEXANDER SOLTOW, SILVIA KARTHÄUSER, and RAINER WASER — Peter Grünberg Institut (PGI-7) and JARA-FIT, Forschungszentrum Jülich GmbH, Germany

PO1.24 MON 17:00

Synthesis and electrochemical Characterization of $\text{LiNi}_{0.85}\text{Co}_{0.10}\text{Al}_{0.05}\text{O}_2$ cathode for lithium battery using co-precipitation method. — ●TAE-JUN PARK, JUNG-BIN IM, and JONG-TAE SON — Department of Nano Polymer science & engineering, Chungju, Chungbuk, 380-702, Korea

PO1.25 MON 17:00

Scanning Tunneling Spectroscopy Studies on Charged Peptide Immobilized on Gold Electrode — ●JOANNA JUHANIEWICZ and SLAWOMIR SEK — Fac-

ulty of Chemistry, University of Warsaw, Pasteura 1, 02093 Warsaw, Poland

PO1.26 MON 17:00

Mastering the surface diffusion of a single molecule with a scanning tunneling microscope — ●DAMIEN RIEDEL¹, HATEM LABIDI¹, and PHILIPPE SONNET² — ¹Institut des Sciences Moléculaire d'Orsay, Bâtiment 210, Université Paris Sud. 91405 Orsay Cedex, France — ²Institut de Science des Matériaux de Mulhouse-CNRS, Université de Haute Alsace, 68093 Mulhouse, France

PO1.27 MON 17:00

Charging and switching of metallo-organic complexes on ultrathin, insulating films supported by a metal support : A density functional theory study based on a perfect conductor model — ●IVAN SCIVETTI, JOHN SHARP, FELIX HANKE, and MATS PERS-SON — Surface Science Research Centre, The University of Liverpool, Liverpool, UK

PO1.28 MON 17:00

pyridylazobenzene molecular adsorption on passivated silicon surface: DFT-D study — ●KHAOULA BOUKARI¹, PHILIPPE SONNET¹, ERIC DUVERGER², FRANK PALMINO², and FRÉDÉRIC CHÉRIOUX² — ¹Institut de Science des Matériaux de Mulhouse (IS2M), CNRS LRC 7228-Université de Haute Alsace, 4 rue des Frères Lumière 68093 Mulhouse cedex. — ²Institut FEMTO-ST, Université de Franche-Comté, CNRS, ENSMM, 32 Avenue de l'Observatoire, F-25044 Besançon cedex

PO1.29 MON 17:00

Charge transport in nanoscale all-inorganic networks of CdSe nanorods linked by Au domains — ●ROMAN KRAHNE, ROMAIN LAVIEVILLE, YANG ZHANG, ALESSANDRO GENOVESE, ALBERTO CASU, LIBERATO MANNA, and ENZO DI FABRIZIO — Italian Institute of Technology, Genoa, Italy

PO1.30 MON 17:00

Thermophotovoltaic cell performance improving by thermal losses optimization — ●ILYA BOGATYREV, KARL JOULAIN, JEREMIE DREVILLON, and ELYÈS NEFZA-OU — Institut Pprime (CNRS, Université de Poitiers, ENSMA), 11 Bd Marie et Pierre Curie, F86962 Futuroscope Chasseneil cedex, Poitiers, France

PO1.31 MON 17:00

Ballistic-like persistent currents in diffusive metallic rings: Explanation of anomalous experimental values — ●JURAJ FEILHAUER and MARTIN MOŠKO — Institute of Electrical Engineering, Slovak Academy of Sciences, 841 04 Bratislava, Slovakia

PO1.32 MON 17:00

Charge transport through 1D molecular chains inserted in zeolite L nanochannels — ●R. N. MAHATO¹, H. LULF², M. OTTER², M.H. SIEKMAN¹, L. DE COLA², M. P. DE JONG¹, and W. G. VAN DER WIEL¹ — ¹NanoElectronics Group, MESA+ Institute for Nanotech-

nology, University of Twente, P.O. Box 217, 7500 AE Enschede, The Netherlands — ²Physikalisches Institut and Center for Nanotechnology, CeNTech, Universität Münster, Heisenbergstr. 11, 48149 Münster, Germany

PO1.33 MON 17:00

Electronic properties of ZnO and NB hexagonal monolayers — A. M. ROJAS-CUERVO, J. D. ROJAS BONILLA, E. GUTIERREZ, and •R. R. REY-GONZÁLEZ — Departamento de Física, Universidad Nacional de Colombia, Bogotá D.C., Colombia

PO1.34 MON 17:00

Quantum Transport Through Aromatic Molecules — J. H. OJEDA¹ and •R. R. REY-GONZÁLEZ² — ¹Grupo de Física de Materiales, Escuela de Física, Universidad Pedagógica y Tecnológica de Colombia, Tunja, Colombia. — ²Departamento de Física, Universidad Nacional de Colombia, Bogotá D.C., Colombia

PO1.35 MON 17:00

A model for inelastic transport through atomic surface wires — •SERGE MONTURET — Centre d'Elaboration des Matériaux et d'Etudes Structurales (CEMES), CNRS, Toulouse, France.

PO1.36 MON 17:00

Fabrication of Electrodes with a Nanometer-sized Gap Tunable by MeV Ion Irradiation — •JUAN-CARLOS CHEANG-WONG^{1,2}, KAZUMASA NARUMI^{2,3}, MICHAEL J. AZIZ⁴, and JENE A. GOLOVCHENKO^{2,4} — ¹Instituto de Física, Universidad Nacional Autónoma de México. A.P. 20-364, México, D.F., 01000, Mexico — ²Department of Physics, Harvard University, Cambridge, MA, 02138, USA — ³Japan Atomic Energy Agency, Takasaki 370-1292, Japan — ⁴Harvard School of Engineering and Applied Sciences, Cambridge, MA, 02138, USA

PO1.37 MON 17:00

Electron Mobility Enhancement by Illumination in Isomorphic Quantum Well InGaAs on InP Substrate — •VLADIMIR KULBACHINSKII, NATALIA YUZEEVA, ROMAN LUNIN, GALIB GALIEV, IVAN VASILIEVSKII, and EUGENE KLIMOV — MV Lomonosov Moscow State University, Low Temperature Physics Department, 119991 GSP-1, Moscow, Russia

PO1.38 MON 17:00

Effect of Heat Treatment on Blend Films of Polysilane and Fullerene — •HIROAKI TACHIBANA, TOYA MIZUNO, and YUMENO AKASAKA — Electronics and Photonics Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), Central 5, Higashi 1-1-1, Tsukuba 305-8565, Japan

PO1.39 MON 17:00

Non-local characterization of surface inhomogeneities using scanning tunneling spectroscopy — •BORISLAV NAYDENOV and JOHN BOLAND — School of Chemistry, Center for Research on Adaptive Nanostructures and Nanodevices (CRANN), Trinity College, Dublin 2, Ire-

land

PO1.40 MON 17:00

Magnetic-field asymmetric thermopower of mesoscopic conductors — •LLORENS SERRA^{1,2} and DAVID SÁNCHEZ^{1,2} — ¹Institute for Cross-Disciplinary Physics and Complex Systems (UIB-CSIC), E-07122 Palma, Spain — ²Department of Physics, University of the Balearic Islands, E-07122 Palma, Spain

PO1.41 MON 17:00

Modelling of the conduction in systems including fullerenes — •MIKHAIL BRITCH¹, KIRILL DOBREGO¹, and LUDMILA KRASOVSKAYA² — ¹Heat and Mass Transfer Institute of National Academy of Sciences, Minsk, Belarus — ²Belarussian State Technological University, Minsk, Belarus

PO1.42 MON 17:00

The Functionality and Structure of a New Pressure Sensitive Printable Ink — •ALEXANDER J WEBB¹, MAREK SZABLEWSKI¹, DAVID BLOOR^{1,2}, DEL ATKINSON¹, ADAM GRAHAM², PAUL LAUGHLIN², and DAVID LUSSEY² — ¹Centre for Materials Physics, Department of Physics, Durham University, South Road, Durham, DH1 3LE, United Kingdom — ²Peratech Limited, 851 Gatherley Road, Brompton on Swale, Richmond, North Yorkshire, DL10 7JH, United Kingdom

PO1.43 MON 17:00

Nanostructured polymeric materials for nanotechnology applications — CLAUDIO DE ROSA¹, •CLAUDIA DILETTO¹, ROCCO DI GIROLAMO¹, FINIZIA AURIEMMA¹, and PASQUALE MORVILLO² — ¹Department of Chemical Sciences, University of Naples Federico II, Via Cintia 80126 Naples, Italy — ²ENEA-Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Portici Research Center, 80055 Portici, Naples, Italy

PO1.44 MON 17:00

Can Antimony Thin Film be a Topological Insulator? — •XUE-SEN WANG, GUANGGENG YAO, FENG PAN, ZIYU LUO, JIATAO SUN, WEN-TAO XU, and YUAN P. FENG — National University of Singapore, 2 Science Drive 3, Singapore

PO1.45 MON 17:00

Advanced gas mass-sensing of hydrogen with palladium nanoparticles — CLAUDIO DE ROSA¹, •ANNA MALAFRONTI^{1,2}, MASSIMO LAZZARI², ROCCO DI GIROLAMO¹, FINIZIA AURIEMMA¹, and IRIA RIELO RODRIGUEZ² — ¹Department of Chemical Sciences, University of Naples Federico II, via Cintia 80126 Naples, Italy — ²Centre for Research in Biological Chemistry and Molecular Materials (CIQUS), University of Santiago de Compostela, 15782 Santiago de Compostela, Spain

PO1.46 MON 17:00

Transverse magnetoresistance in layered crystals at impurity ion scattering — •BAHRAM ASKEROV¹, SOPHYA FIGAROVA¹, GUSEYNAGA GUSEYNOV², and VAGIF FIGAROV³ — ¹Baku State University, 23 Z.Khalilov st.,

Baku, AZ1148, Azerbaijan — ²Azerbaijan University of Architecture and Construction, 5 A. Sultanova str. Baku, AZ1073, Azerbaijan — ³Institute of Physics, 33 H.Javid av., Baku, Az1143, Azerbaijan

PO1.47 MON 17:00

Mechanical Conductance Regulation of Si Based Single Molecular Junction — ●SHOJI YOSHIDA, MIKI NAKAMURA, OSAMU TAKEUCHI, and HIDEMI SHIGEKAWA — University of Tsukuba, Tsukuba, Japan

PO1.48 MON 17:00

Quantum Chemical Study of Optical Properties of Some Ru- and Rh-Based Complexes for Dye-Sensitized Solar Cells — ●CORNELIU I. OPREA¹, BOGDAN FRECUS^{1,2}, BORIS F. MINAEV^{2,3}, and MIHAI A. GIRTU¹ — ¹Department of Physics, Ovidius University of Constanta, Constanta, Romania — ²Department of Theoretical Chemistry and Biology, Royal Institute of Technology, Stockholm, Sweden — ³Department of Chemistry, B. Khmelnytsky National University, Cherkassy, Ukraine

PO1.49 MON 17:00

Wiring up an organic molecule with a metallic chain of atoms — ●TAMAR YELIN and OREN TAL — Chemical Physics Department, Weizmann Institute of Science, Rehovot, Israel

PO1.50 MON 17:00

Donor and Acceptor σ - π - σ Self-Assembled Molecular Monolayers: an STM study — ●LIONEL PATRONE^{1,2,3}, XAVIER LEFÈVRE⁴, FABRICE MOGGIA⁴, GAËL ROBERT⁵, BRUNO JOUSSELME⁴, and SERGE PALACIN⁴ — ¹CNRS, IM2NP UMR 7334 — ²Aix-Marseille Université, IM2NP — ³Institut Supérieur de l'Electronique et du Numérique, IM2NP, Maison des Technologies, ISEN-Toulon, Place Georges Pompidou, F-83000 Toulon, France — ⁴Laboratoire de Chimie des Surfaces et Interfaces (LCSI), DSM/IRAMIS/SPCSI, CEA Saclay, F-91191 Gif-sur-Yvette Cedex, France — ⁵Laboratoire d'Electronique Moléculaire (LEM), DSM/IRAMIS/SPEC (CNRS URA 2464), CEA Saclay, F-91191 Gif-sur-Yvette Cedex, France

PO1.51 MON 17:00

Blue-Shifted Photoluminescence of MEHPPV Polymer Attained by a Novel Visible Laser Solution-Phase Processing — ●AKIHIRO TOMIOKA and KOUHEI TAKADA — Osaka Electro-Communication University, Osaka, Japan

PO1.52 MON 17:00

Structural Phase Diagram of F16CuPc and PEN Molecular Assembly on Cu(111) — ●AFAF EL-SAYED^{1,2}, YUTAKA WAKAYAMA², and ENRIQUE ORTEGA^{1,3,4} — ¹Centro de Física de Materiales (CFM), (CSIC-UPV/EHU), San Sebastián, Spain — ²National Institute for Materials Science (NIMS), 1-1 Namiki, Tsukuba, Japan — ³Donostia International Physics Center (DIPC), San Sebastián, Spain — ⁴Departamento de Física Aplicada I, UPV/EHU, San Sebastián, Spain

PO1.53 MON 17:00

Characterisation of lipid-protein isotherm by using Langmuir-Blodgett (LB) and tapping-mode Atomic Force Microscopy (AFM) — ●LAI TI GEW — Sunway University, Selangor, Malaysia.

PO1.54 MON 17:00

A Library of the Nanoscale Self-Assembly of Amino Acids on Metal Surfaces — ●ERIN V. ISKI, ESMERALDA N. YITAMBEN, and NATHAN P. GUISSINGER — Argonne National Lab, Lemont, IL USA

PO1.55 MON 17:00

Liquid crystalline/ZnO nanohybrids : from self-organization properties to the control of the anisotropic growth of nanoparticles — ●JEAN-DANIEL MARTY¹, MYRTIL L. KAHN², SARMENIO SALIBA^{1,2}, and CHRISTOPHE MINGOTAUD¹ — ¹IMRCP UMR5623, Université Paul Sabatier, Toulouse, France — ²LCC UPR 8241, Université Paul Sabatier, Toulouse, France

PO1.56 MON 17:00

Two-dimensional Supramolecular Structures Mediated by Halogen Bonds : Comparing Cl and Br — ●MIN HUI CHANG, SEUNG-KYUN NOH, JEONG HEUM JEON, WON-JUN JANG, JONG KEON YOON, and SE-JONG KAHNG — Department of Physics, Korea University, 1-5, Anam-dong, Seongbuk-gu, 136-713, Seoul, Korea

PO1.57 MON 17:00

Donor-Acceptor Networks on (111) Metal Surfaces — ●ELIZABETH GOIRI^{1,2}, DIMAS G. DE OTEYZA³, AFAF EL-SAYED^{2,4}, MANFRED MATENA¹, JORGE LOBO-CHECA⁵, and J. ENRIQUE ORTEGA^{1,2,4} — ¹Donostia International Physics Center, Donostia-San Sebastián, Spain — ²Universidad del País Vasco, Dpto. Aplicada I, Donostia-San Sebastián, Spain — ³University of California at Berkeley, Department of Physics, Berkeley, CA, USA — ⁴Centro de Física de Materiales CSIC/UPV-EHU, Donostia-San Sebastián, Spain — ⁵Centre d'Investigació en Nanociència i Nanotecnologia CIN2, Barcelona, Spain

PO1.58 MON 17:00

Electrodes Modified with Layered Gold Nanoparticles and Enzyme - Laccase for the Oxidation of Neurotransmitters — ●AGNIESZKA WIECKOWSKA and JOANNA JUHANIEWICZ — University of Warsaw, Faculty of Chemistry, Pasteura 1, 02-093 Warsaw, Poland

PO1.59 MON 17:00

Conducting Microbead Prepared by Green Electroless Plating Method Using Gold Nanoparticles — ●HIROSHI SHIIGI¹, TAKAHIRO FUJITA¹, NAOKI SHIBUTANI¹, SHIHO TOKONAMI¹, YOJIRO YAMAMOTO², and TSUTOMU NAGAOKA¹ — ¹Osaka Prefecture University, Sakai, Japan — ²GreenChem, Sakai, Japan

PO1.60 MON 17:00

Triptycene based nanovehicles on semiconducting surfaces — ●ATHER MAHMOOD¹, JUDICAEEL JEANNOUTOT¹, ROMAIN GARBAGE², GWENAEL

RAPENNE², XAVIER BOUJU², FRANK PALMINO¹, and FRÉDÉRIC CHÉRIOUX¹ — ¹Centre d'Élaboration de Matériaux et d'Études Structurales CNRS UPR 8011- 29 rue Jeanne Marvig, 31055 Toulouse. — ²Institut FEMTO-ST, Université de Franche-Comté, CNRS, ENSMM, 32 Avenue de l'Observatoire, F-25044 Besançon cedex.

PO1.61 MON 17:00

Well-defined Shapes of Second-layer Islands in Organic Thin Film Growth — ●CHRISTIAN TEICHERT¹, STEFAN LORBEEK¹, QUAN SHEN¹, THOMAS POCAR², ADOLF WINKLER², GIULIO BIDDAU^{3,4}, DIMITRII NABOK^{3,4}, PETER PUSCHNIG^{3,5}, and CLAUDIA AMBROSCH-DRAXL^{3,4} — ¹Institute of Physics, Montanuniversität Leoben, Franz Josef Strasse 18, A-8700 Leoben, Austria — ²Institute of Solid State Physics, Graz University of Technology, Petersgasse 16, A-8010 Graz, Austria — ³Chair of Atomistic Modelling and Design of Materials, Montanuniversitaet, Franz Josef Strasse 18, A-8700 Leoben, Austria — ⁴Department of Physics, Humboldtuniversität zu Berlin, Newtonstr. 15, D-12489 Berlin, Germany — ⁵Institute of Physics, Karl-Franzens University Graz, Universitätsplatz 5, A-8010 Graz, Austria

PO1.62 MON 17:00

Magnetic nanowires generated via the waterborne desalting transition pathway — MINAHO YAN¹, JÉRÔME FRESNAIS², SRIBHARANI SEKAR³, JEAN-PAUL CHAPEL³, and ●JEAN-FRANÇOIS BERRET¹ — ¹aMatière et Systèmes Complexes, UMR 7057 CNRS Université Denis Diderot Paris-VII, Bâtiment Condorcet, — ²b Physicochimie des Electrolytes, Colloïdes et Sciences Analytiques (PECSA) UMR 7195 CNRS-UPMC-ESPCI, 4 place Jussieu, 75252 Paris Cedex 05 — ³cCentre de Recherche Paul Pascal (CRPP), UPR CNRS 8641, Université Bordeaux 1, 33600 Pessac - France

PO1.63 MON 17:00

Building of nanodomains at grain boundaries of a self assembled monolayer ; Spectroscopic and electrochemical properties of juglonethiol domains in function of their size — ZENGHRAN QIN, MAHAMADOU SEYDOU, ●PHILIPPE LANG, VINCENT NOEL, SAMIA ZRIG, BENOIT PIRO, FRANCOIS MAUREL, NICOLAS BATTAGLINI, and MIN CHAU PHAM — Univ Paris Diderot, Sorbonne Paris Cité, ITODYS, UMR 7086 CNRS, 15 rue J-A de Baïf, 75205 Paris Cedex 13, France

PO1.64 MON 17:00

Nanometric dimension of polyoxometalate-porphyrin copolymeric films studied by combination of XPS and nano-Auger — DELPHINE SCHAMING¹, RANA FARHA¹, MICHEL GOLDMANN¹, LAURENT RUHLMANN¹, ●MURIEL BOUTTEMY², JACKIE VIGNERON², and ARNAUD ETCHEBERRY² — ¹Université Paris 11, Laboratoire de Chimie Physique, Grp TEMiC, CNRS, UMR 8000, F-91405 Orsay, France. — ²Institut Lavoisier de Versailles, ILV-UVSQ UMR CNRS 8180, 45 av. des Etats-Unis, F-78035 Versailles Cedex, France.

PO1.65 MON 17:00

Hydrogen-bonded 2D supramolecular porous networks; properties of guest electroactive molecules confined in the pores — JOAN TEYSSANDIER¹, ●SAMIA ZRIG¹, ZAINEB CHAFFAR¹, XIANAN SUN¹, NICOLAS BATTAGLINI¹, GUILLAUME ANQUETIN¹, MAHAMADOU SEYDOU¹, FRANCOIS MAUREL¹, PHILIPPE LANG¹, and FABRICE CHARRA² — ¹Univ Paris Diderot, Sorbonne Paris Cité, ITODYS, UMR 7086 CNRS, 15 rue J-A de Baïf, 75205 Paris Cedex 13, France — ²laboratoire de nanophotonique organique / Iramis / cea saclay

PO1.66 MON 17:00

Submolecular Resolution of Two- and Three-Dimensionally Folded Cytochrome c at Surfaces — ●STEPHAN RAUSCHENBACH¹, NICHIA THONTASEN¹, ZHI-TAO DENG¹, GORDON RINKE¹, NIKOLA MALINOWSKI¹, LUDGER HARNAU^{2,3}, and KLAUS KERN^{1,4} — ¹Max-Planck-Institute for Solid State Research, Nanoscale Science Department, Heisenbergstr. 1, DE 70569 Stuttgart, Germany — ²Max-Planck-Institut für Intelligente Systeme, Heisenbergstr. 3, DE 70569 Stuttgart, Germany — ³Institut für Theoretische und Angewandte Physik, Universität Stuttgart, Pfaffenwaldring 57, DE 70569 Stuttgart, Germany — ⁴Institut de Physique de la Matière Condensée, Ecole Polytechnique Fédérale de Lausanne, CH 1015 Lausanne, Switzerland

PO1.67 MON 17:00

Adenine adsorption on the Si(111)-7x7 surface — MARTIN VONDRÁČEK¹, ZSOLT MAJZIK¹, MARTIN ŠVEC¹, VLADIMÍR ZOBAC¹, OKSANA PLEKAN², KEVIN C. PRINCE², and ●VLADIMÍR CHÁB¹ — ¹Institute of Physics AS CZ, Praha, Czech Rep. — ²Sincrotrone Trieste, Area Science Park, Basovizza (Trieste), Italy

PO1.68 MON 17:00

STM and STS characterization of PTCDI self assembly on Si(111) Ag surface — RARES STIUFIUC¹, CRISTIAN IACOVITA², BRUNO GRANDIDIER³, VASILE CHIS⁴, and ●GABRIELA STIUFIUC⁴ — ¹Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania — ²Regional Institute of Gastroenterology-Hepatology, Cluj-Napoca, Romania — ³Institut d'Electronique, de Microelectronique et de Nanotechnologies, IEMN, Lille, France — ⁴Faculty of Physics, Babes-Bolyai University, Cluj Napoca, Romania

PO1.69 MON 17:00

Chemical selectivity in self-assembled monolayer modification induced by low energy electron irradiation. — ●LIONEL AMAUD^{1,2}, JUSTINE HOUPLIN^{1,2}, VINCENT HUMBLOT^{3,4}, ROGER AZRIA^{1,2}, CLAIRE-MARIE PRADIER^{3,4}, and ANNE LAFOSSE^{1,2} — ¹Univ. Paris-Sud, Institut des Sciences Moléculaires d'Orsay, UMR 8214, Orsay, France — ²CNRS, Orsay, France — ³CNRS, UMR CNRS 7197, Laboratoire de Réactivité de Surface, FRANCE — ⁴Laboratoire de Réactivité de Surface, Université Pierre et Marie Curie, Paris 6, Paris, France

PO1.70 MON 17:00

On-surface chemistry on semiconductor sur-

faces — ●JAKUB S. PRAUZNER-BECHCICKI¹, MAREK KOLMER¹, SZYMON GODLEWSKI¹, AMIR ZEBARI¹, ALEXANDER POLIT¹, JANUSZ BUDZIOCH¹, IRENA G. STARA², IVO STARY², and MAREK SZYMONSKI¹ — ¹Centre for Nanometer-Scale Science and Advanced Materials, NANOSAM, Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian University, Reymonta 4, Krakow, Poland — ²Institute of Organic Chemistry and Biochemistry AS CR, Flemingovo nám. 2, 166 10 Prague 6, Czech Republic

PO1.71 MON 17:00

Supramolecular ordering of PTCDA molecules on TiO₂(110) surface * the key role of dispersion forces in unusual transition from flat physisorbed into bent chemisorbed state — ●SZYMON GODLEWSKI¹, ANTONI TEKIEL², WITOLD PISKORZ³, FILIP ZASADA³, JAKUB S. PRAUZNER-BECHCICKI¹, ZBIGNIEW SOJKA³, and MAREK SZYMONSKI¹ — ¹Department of Physics of Nanostructures and Nanotechnology, Institute of Physics, Jagiellonian University, Reymonta 4, PL 30-059, Krakow, Poland — ²Department of Physics, McGill University, 3600 University Street, Montreal, Quebec H3A 2T8, Canada — ³Faculty of Chemistry, Jagiellonian University, Ingardena 3, 30-060

Krakow, Poland

PO1.72 MON 17:00

Dewetting-Assisted Formation of Quenched / Dequenched Aggregates of Rhodamine Dyes on Thin SiO₂ Layer of Si Substrate — ●AKIHIRO TOMIOKA and KOUHEI TAKADA — Osaka Electro-Communication University, Osaka, Japan

PO1.73 MON 17:00

Anchoring and adsorbed dipoles: understanding the role of the underlying substrate. — SERGII SNEGIR^{1,2,3}, ●DELPHINE COURSAULT^{1,2}, SENENKO ANTON⁴, OLEKSIY L. KAPITANCHIK⁵, JAN GERRITSEN⁶, SYLVIA SPELLER⁶, and EMMANUELLE LACAZE^{1,2} — ¹Institut des Nano-Sciences de Paris UMR-CNRS 7588, Paris, France — ²Université Pierre et Marie Curie-Paris 6, Paris, France — ³A.A. Chuiko Institute of surface chemistry - National Academy of Sciences of Ukraine, Kyiv, Ukraine — ⁴Institute of Physics, National Academy of Sciences of Ukraine, Kyiv, Ukraine — ⁵Bogolyubov Institute for Theoretical Physics, National Academy of Sciences of Ukraine, Kyiv, Ukraine — ⁶Institute for Molecules and Materials, Nijmegen, Netherlands

PO2: Poster Session 2: Surface chemistry and catalysis

Time: Monday 17:00–19:00

Location: PO Arches

PO2.1 MON 17:00

Metal-Semiconductor Hetero-Nanostructures for Plasmon-Enhanced Visible-Light Photocatalysis — ●CAN XUE — School of Materials Science and Engineering, Nanyang Technological University, 50 Nanyang Avenue, N4.1-02-20, Singapore, 639798

PO2.2 MON 17:00

Preparation, characterization and investigation of catalytic activity for CO oxidation of Co-Cr and Co-Fe mixed oxides over CeO₂ — ●RIDA KAMEL — Université de Jijel

PO2.3 MON 17:00

Effet de Zn et Zr sur les propriétés des catalyseurs Pt/CeO₂ — ●MOUNA AOUN^{1,2} and MOHAMED CHATER² — ¹Centre de Recherche Scientifique et Technique en Analyses Physico-Chimiques (C.R.A.P.C), BP 248 Alger RP, 16004 — ²Laboratoire d'Etude Physico-Chimique des Matériaux et Application à l'Environnement, Faculté de Chimie, Université des Sciences et de la Technologie, Houari Boumediene, BP 32 Bab Ezzouar, 16111, Alger

PO2.4 MON 17:00

m-Xylene isomerization over HZSM-5 zeolites. — ●AICHA BENAMAR and ABDELHALIM MILOUDI — Laboratoire d'Etude Physicochimique des Matériaux et Application à l'Environnement, Faculté de Chimie, BP 32 USTHB El Alia Bab Ezzouar, 16111, Algiers, Algeria.

PO2.5 MON 17:00

Adsorption of Rhodamine 6G from simulated industrial waste water using low-cost abundantly available adsorbent (LCA) — ●JERINA MAJEED¹, ONATTU DAMODHARAN JAYAKUMAR¹, JAYASREE RAMKUMAR², and AVESH KUMAR TYAGI¹ — ¹Chemistry Division, Bhabha Atomic Research Centre, Mumbai, 400085, India — ²Analytical Chemistry Division, Bhabha Atomic Research Centre, Mumbai, 400085, India

PO2.6 MON 17:00

Adsorption of reactive dye from aqueous solutions by modified Montmorillonite — ●SIMA HABIBI and FOROUGH ADHAMI — Islamic Azad University, Shahr-e-Rey branch, Tehran - Iran

PO2.7 MON 17:00

Scanning Tunneling Microscopy on the Influence of the Surface Reconstructions of SrTiO₃ (001) on the Growth of Perovskite Oxides — ●SOO-HYON PHARK, YOUNG JUN CHANG, and TAE WON NOH — Department of Physics and Astronomy, ReCFI and FPRD, Seoul National University, Seoul 151-747, Republic of Korea

PO2.8 MON 17:00

Surface Property Modification of Copper by Nanocomposite Coating — ●ANINDYA BASU and ASHOK AKARAPU — National Institute of Technology, Rourkela, Odisha, India

PO2.9 MON 17:00

Local effect of the laser on nano-structured micro electrodes probed by surface-enhanced Raman spec-

troscopy — •YI-FAN HUANG, WEI WANG, DONG-PING ZHAN, DE-YIN WU, BIN REN, and ZHONG-QUN TIAN — State Key Laboratory of Physical Chemistry of Solid Surfaces, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen 361005, China

PO2.10 MON 17:00

Iron incorporated mesoporous molecular sieves materials and its catalytic activity in phenol oxidation — •KHALIDA CHELLAL¹, KHALDOUN BACHARI², FARIDA SADI¹, and ZAKARIA BEKKAR³ — ¹Laboratoire d'étude Physico-chimiques des Matériaux et Application à l'Environnement. Faculté de Chimie. U.S.T.H.B. ALGERIE — ²Centre de Recherche Scientifique et Technique en Analyses Physico-Chimiques (C.R.A.P.C.), BP 248, Alger RP 16004, Algeria — ³Ecole Nationale Préparatoire aux Etudes d'ingénierat, Rouiba, Alger, Algeria

PO2.11 MON 17:00

Click chemistry and/or microwave irradiation for nanoparticle surface modification — •ERWANN GUÉNIN¹, FARAH BENYETTOU¹, YOANN LALATONNE^{1,2}, and LAURENCE MOTTE¹ — ¹CSPBAT laboratory, UMR 7244 CNRS, University Paris 13, 74 rue Marcel Cachin, 93017 Bobigny, France. — ²Department of Nuclear Medicine, Avicenne Hospital, 93009 Bobigny, France

PO2.12 MON 17:00

Diffusion-Ordered NMR Spectroscopy on Hybrid Nanoclusters — •LUK VAN LOKEREN^{1,2,3}, RUDOLPH WILLEM², LAURENCE ROZES^{1,3,4}, TATJANA N. PARACVOGT⁵, and FRANÇOIS RIBOT^{1,3,4} — ¹Université Pierre et Marie Curie (UMR 7574), Paris, France — ²Vrije Universiteit Brussel, Brussels, Belgium — ³Collège de France, Paris, France — ⁴CNRS (UMR 7574), Paris, France — ⁵Katholieke Universiteit Leuven, Leuven, Belgium

PO2.13 MON 17:00

Electrodeposition and Characterization of Thin-Film of Zinc -Nickel Coatings Obtained in a Sulfate Solutions Influence of Boric Acid — •ADDI YASSINE and KHOUIDER ALI — usthb-enpei algiers algeria

PO2.14 MON 17:00

Tight-Binding Quantum Chemical Molecular Dynamics Simulations of Silicon Chemical Vapor Deposition Process for Solar Cells — •TAKUYA KUWAHARA, HIROSHI ITO, YUJI HIGUCHI, NOBUKI OZAWA, TOMOMI SHIMAZAKI, and MOMOJI KUBO — Fracture and Reliability Research Institute, Graduate School of Engineering, Tohoku University, Sendai, Japan

PO2.15 MON 17:00

Direct Observation of Valence States of NO on Cu(110) — •AKITOSHI SHIOTARI, YUYA KITAGUCHI, HIROSHI OKUYAMA, SHINICHIRO HATTA, and TETSUYA ARUGA — Graduate School of Science, Kyoto University, Kyoto, Japan

PO2.16 MON 17:00

Border Search Method - potential energy surface

mapping technique alternative to Metadynamics — •PROKOP HAPALA and PAVEL JELINEK — Institute of Physics, Academy of Sciences of the Czech Republic, Cukrovarnická 10, Prague, 16253, Czech Republic

PO2.17 MON 17:00

Nano-organocatalysts synthesis — •EMILIE NEHLIG, LAURENCE MOTTE, and ERWANN GUÉNIN — Université Paris 13, Bobigny, France

PO2.18 MON 17:00

Probing, in suspension, the ligands on the surface of gold nanoparticles by DOSY NMR — •HANEN BEN SASSI^{1,3}, FRANÇOIS RIBOT^{1,2,3}, LUK VAN LOKEREN^{1,3}, and CLÉMENT SANCHEZ^{1,2,3} — ¹Univeristé Pierre et Marie Curie (LCMCP), Paris, France — ²CNRS (UMR 7574), Paris, France — ³Collège de France, Paris, France

PO2.19 MON 17:00

The Surface Tension Influence in SiO₂/ZrO₂ Thin Films Obtained by the Sol Gel Process — •RENATA GARCIA, YASMIN ZANINI, ROBSON FLEMING, and ELIZABETE KAWACHI — Instituto Tecnológico de Aeronáutica, São José dos Campos, Brazil

PO2.20 MON 17:00

Charging Processes of Nanostructured Silica Under Electron Bombardment — •SERGEY ZVONAREV, VSEVOLOD KORTOV, and TATYANA SPIRIDONOVA — Ural Federal University, Ekaterinburg, Russia

PO2.21 MON 17:00

Molecular Interactions and Reactivity of Perylene Derivatives on Surfaces: Going from VdW Assembly to Metal Coordination and Covalent Bonding — •SUSANNE C. MARTENS¹, MANFRED MATENA¹, MEIKE STÖHR², LUTZ H. GADE³, and THOMAS A. JUNG⁴ — ¹Institut of Physics, University of Basel, Switzerland — ²Zernike Institute for Advanced Materials, University of Groningen, The Netherlands — ³Anorganisch-Chemisches Institut, University of Heidelberg, Germany — ⁴Laboratory for Micro- and Nanostructures, Paul-Scherrer-Institute, Villigen, Switzerland

PO2.22 MON 17:00

Photocatalytic studies of ZnO nanoparticles-encapsulated β -substituted Porphyrins — SANKAR SENTHILKUMAR¹, RAJAMOHAN HARIHARAN², AYYADURAI SUGANTHI³, and •MUTHURAMALINGAM RAJARAJAN⁴ — ¹P.G. Department of Chemistry, Cardamom Planters' Association College, Bodinayakanur, TamilNadu, India - 625513. — ²P.G. Department of Chemistry, Cardamom Planters' Association College, Bodinayakanur, TamilNadu, India - 625513. — ³P.G. & Research Department of Chemistry, Thiagarajar College, Madurai, TamilNadu, India - 625009. — ⁴P.G. Department of Chemistry, Cardamom Planters' Association College, Bodinayakanur, TamilNadu, India - 625513.

PO2.23 MON 17:00

The influence of TM doping on the humidity sen-

sitivity of ZnO films — ●ALICIA PETRONELA RAMBU, CORNELIU DOROFTEI, and FELICIA IACOMI — "Alexandru Ioan Cuza" University of Iasi, Faculty of Physics, 11 Carol I Blvd., 700506 Iasi, Romania

PO2.24 MON 17:00

Effect of In incorporation on the gas sensing properties of ZnO films — ●ALICIA PETRONELA RAMBU¹, NICOLETA LFTIME², and FELICIA IACOMI¹ — ¹"Alexandru Ioan Cuza" University of Iasi, Faculty of Physics, 11 Carol I Blvd., 700506 Iasi, Romania — ²National Institute of Research and Development for Technical Physics, 47 Mangeron Blvd., 700050, Iasi, Romania

PO2.25 MON 17:00

Intermixing and surface alloy formation of In and Ag caused by surface diffusion — ●ANTONI BUKALUK, KRZYSZTOF OKULEWICZ, and MAREK TRZCINSKI — Wydział Technologii i Inżynierii Chemicznej, Kaliskiego 7, 85-796 Bydgoszcz, Poland

PO2.26 MON 17:00

Photodynamic studies of curcumin-derived dye encapsulated into surface modified ZnO nanoparticles — RAJAMOHAN HARIHARAN¹, SANKAR SENTHILKUMAR², AYYADURAI SUGANTHI³, and ●MUTHURAMALINGAM RAJARAJAN⁴ — ¹P.G. Department of Chemistry, Cardamom Planters' Association College, Bodinayakanur, TamilNadu, India - 625513. — ²P.G. Department of Chemistry, Cardamom Planters' Association College, Bodinayakanur, TamilNadu, India - 625513. — ³P.G. & Research Department of Chemistry, Thiagarajar College, Madurai, TamilNadu, India - 625009. — ⁴P.G. Department of Chemistry, Cardamom Planters' Association College, Bodinayakanur, TamilNadu, India - 625513.

PO2.27 MON 17:00

Photocatalytic reduction of Cr (VI) in water using Bi₂O₃-ZrO₂ nanocomposite under visible light irradiation — KUMARAVEL VIGNESH¹, ●AYYADURAI SUGANTHI¹, and MUTHURAMALINGAM RAJARAJAN² — ¹P.G. and Research Department of Chemistry, Thiagarajar College, Madurai, Tamilnadu, India-625009 — ²P.G. Department of Chemistry, C.P.A. College, Bodinayakanur, Tamilnadu, India-626513

PO2.28 MON 17:00

Receipt of thin-film semiconductor nanostructures and to study their physico-chemical properties — ●EKATERINA SHUBENKOVA and OLGA CHZHU — Omsk State Technical University, Omsk, Russia

PO2.29 MON 17:00

Surface Chemistry and Catalysis Atomic Force Microscopy for Investigation of Ion-Exchange Membranes Surface Morphology — ELENA KRISILOVA, TATYANA ELISEEVA, ●ALEXEY KRISILOV, and GALINA OROS — Voronezh State University, Voronezh, Russia

PO2.30 MON 17:00

The formation of multicomponent metallic subcrystals on the steel surface as a result of prolonged contact with liquid lithium — ●ELENA DEMINA¹, MARINA PRUSAKOVA², and IGOR LYUBLINSKI³ — ¹Institution of Russian Academy of Sciences AA Baikov Institute of Metallurgy and Material Science RAS, Leninsky pr., 49, 119991 Moscow, Russia — ²Institution of Russian Academy of Sciences AA Baikov Institute of Metallurgy and Material Science RAS, Leninsky pr., 49, 119991 Moscow, Russia — ³Joint stok corporation "Red Star", Electrolinij Proezd, 1a, 115 230 Moscow, Russia

PO2.31 MON 17:00

In-Situ Surface Microscopy of Alanate Hydrogen Storage Reactions — ABDULLAH AL-MAHBOOB¹, ALTAZ KARIM², JAMES MUCKERMAN², CRISTIAN CIOBANU³, and ●PETER SUTTER¹ — ¹Center for Functional Nanomaterials, Brookhaven National Laboratory, Upton, New York 11973, USA — ²Chemistry Department, Brookhaven National Laboratory, Upton, New York 11973, USA — ³Division of Engineering, Colorado School of Mines, Golden, Colorado 80401, USA

PO2.32 MON 17:00

Functionalize Si(111)-(7x7) surface through in-situ photoinduced fabrication of covalently bonded organic bilayers — ●YONG PING ZHANG and GUO QIN XU — Department of Chemistry, National University of Singapore, 3 Science Drive 3, Singapore 117543

PO2.33 MON 17:00

Gamma Irradiation Synthesis and Photocatalytic property of Au-Cu bimetallic nanoparticles supported on TiO₂ — ZIBIN HAI¹ and ●HYND REMITA^{1,2} — ¹Université de Paris-Sud, UMR8000, Laboratoire de Chimie Physique, 15 rue Georges Clemenceau, F-91405 Orsay, France — ²CNRS, UMR8000, Laboratoire de Chimie Physique, 15 rue Georges Clemenceau, F-91405 Orsay, France

PO2.34 MON 17:00

Experimental evidence of the nanoparticle size influence on the surface charge density in magnetic colloids — ●ALEX F. C. CAMPOS¹, RENATA AQUINO¹, FRANCISCO A. TOURINHO², FÁBIO L. DE O. PAULA³, and JEROME DEPEYROT³ — ¹Faculdade UnB - Planaltina - Universidade de Brasília (Brasil) — ²Instituto de Química - Universidade de Brasília (Brasil) — ³Instituto de Física - Universidade de Brasília (Brasil)

PO2.35 MON 17:00

Preparation of alumina catalyst supports: from boehmite nanoparticles to industrial products — ●MATHIEU DIGNE, MALIKA BOUALLEG, and FOUAD KAROUIA — IFPEN, BP 3, 69260 Solaize, France

PO2.36 MON 17:00

NiO-MgO thin-film solid solutions on a Mo(100) support: formation, reduction and influence of the support — ●KATHRIN MÜLLER¹, DANIEL TORRES², DARIO STACCHIOLA³, JOON B. PARK⁴, PING LIU³, and DAVID E. STARR² — ¹Zernike Institute for Advanced Ma-

terials, University of Groningen, Netherlands — ²Center for Functional Nanomaterials, Brookhaven National Laboratory, Upton, NY 11973, USA — ³Chemistry Department, Brookhaven National Laboratory, Upton, NY 11973, USA — ⁴Institute of Fusion Science, Department of Chemistry Education, Chonbuk National University, Jeonju, Jeonbuk 561-756, South Korea

PO2.37 MON 17:00

Nanoprobe for competitive surface-enhanced Raman scattering (SERS) immunoassay — ●MOHAMED DRIBEK, EMMANUEL RINNERT, FLORENT COLAS, MARIE-PIERRE CRASSOUS, and CHANTAL COMPÈRE — IFREMER, Service Interfaces et Capteurs, BP 70 29280 Plouzané, France.

PO2.38 MON 17:00

Size controlled synthesis of cobalt nanoparticles on modified silicon substrates using electrochemical reduction technique — ●AMINE ACHOUR¹, MOHAMMED ISLAM², LAURENT LE BRIZOUAL³, MOHAMMAD BOUJTITA¹, NICOLAS GAUTIER¹, and M-ABDOU DJOUADI¹ — ¹Institut des Matériaux Jean Rouxel, UMR 6502, 2 rue de la Houssinière, B.P. 32229, F-44322, Nantes cedex 3, France — ²School of Chemical & Materials Engineering (SCME), National University of Sciences & Technology (NUST), Sector H-12, Islamabad 44000, Pakistan — ³CEISAM: Chimie Et Interdisciplinarité: Synthèse Analyse Modélisation, UMR 6230 CNRS - Université de Nantes, UFR Sciences et Techniques CEISAM: Chimie Et Interdisciplinarité: Synthèse Analyse Modélisation, UMR 6230 CNRS - Université de Nantes, UFR Sciences et Techniques

PO2.39 MON 17:00

Synthesis and Characterization of Thermally Evaporated Thin Films of Transparent Crystalline Conducting Tin Oxide — ●BEER PAL SINGH, RAKESH KUMAR, JYOTSHANA GAUR, and RAMESH C. TYAGI — Department of Physics, CCS University, Meerut, India

PO2.40 MON 17:00

Computer Simulation of the Ion beam Modification and Analysis — FARID UMAROV¹ and ●ABDIRAVUF DZHURAKHALOV² — ¹Kazakh-British Technical University, Tole bi Str. 59, 050000 Almaty, Kazakhstan — ²Antwerpen University, 2020 Antwerpen, Middelheimlaan 1, Belgium

PO2.41 MON 17:00

Formation of a chemisorbed water-hydroxyl phase

on Cu(110) mediated by surface transport. — ●KIRILL BOBROV and LAURENT GUILLEMOT — Institut des Sciences Moléculaires, Orsay, CNRS, Université Paris-Sud 11, F-91405 Orsay.

PO2.42 MON 17:00

the metastable bcc phase of ultra-thin Ni layer on Fe(001) studied by scanning tunneling microscopy — ●GIANLORENZO BUSSETTI, MICHELE RIVA, ANDREA PICONE, ALBERTO BRAMBILLA, LAMBERTO DUÒ, FRANCO CICCACCI, and MARCO FINAZZI — Physics Department, Politecnico di Milano, 20133 Milano, Italy

PO2.43 MON 17:00

Nanostructuring of Cu(110) by Self-Organised Growth of Oxygen and its Influence on the Surface Reactivity — ●FRÉDÉRIC WIAME, CLÉMENT POULAIN, VINCENT MAURICE, and PHILIPPE MARCUS — Ecole Nationale Supérieure de Chimie de Paris (Chimie ParisTech), Paris, France

PO2.44 MON 17:00

Surface chemical states of amorphous In-Ga-Zn-O thin films; effects of surface treatments and environment — JAY YOON BAIK¹, SE JUN KANG², ANUP THAKUR³, and ●HYUN-JOON SHIN^{1,2} — ¹Pohang Accelerator Laboratory, POSTECH, Pohang, Korea — ²Dept. Physics, POSTECH, Pohang, Korea — ³U.C.o.E., Punjabi University, Punjab, India

PO2.45 MON 17:00

Synthesis of Star-shaped Multivalent Pyridine Derivatives and Complex Chemistry at Surfaces — ●DANIEL TRAWNY¹, HANS-ULRICH REISSIG¹, and JÜRGEN P. RABE² — ¹Freie Universität Berlin, 14195 Berlin, Germany — ²Humboldt Universität zu Berlin, 12489 Berlin, Germany

PO2.46 MON 17:00

In-situ look at copper electrodeposition and the influence of additives — ●YURIY YANSON and MARCEL ROST — Leiden University, Leiden, the Netherlands

PO2.47 MON 17:00

Studies of Structural Probe and Gas Storage in Large Surfaced Nano- and Meso-porous Materials — EUIKWOUN KIM, SANGHWA LEE, and ●JAEYONG KIM — Department of Physics, Hanyang University, Seoul, 133-791, Korea

PO3: Poster Session 3: Nano-optics

Time: Monday 17:00–19:00

Location: PO Gallery St Germain

PO3.1 MON 17:00

Continuous non-demolition measurement of boson number in a driven damped harmonic resonator — ●VLASTA PERINOVA and ANTONIN LUKS — Joint Laboratory of Optics, Palacky University, RCPTM, 17. listopadu 12, 771 46 Olomouc, Czech Republic

PO3.2 MON 17:00

Optical Reflectivity and Chromaticity Investigations of the Sputtered Al-Cu Thin Films System — ●MOHAMED DRAISSIA and MOHAMED YACINE DEBILI — LM2S, Laboratory of Magnetism and Spectroscopy of Solids, Physics Department, Faculty of Science, Badji-

Mokhtar University, BP 12 Annaba, 23000 Algeria.

PO3.3 MON 17:00

Second-Harmonic Generation from Composites Containing Elongated Aligned and Spherical Silver Nanoparticles — ISRAEL ROCHA-MENDOZA¹, ●RAÚL RANGEL-ROJO¹, LUIS RODRÍGUEZ-FERNÁNDEZ², and ALICIA OLIVER² — ¹Centro de Investigación Científica y de Educación Superior de Ensenada, Carretera Ensenada-Tijuana No.3918, Zona Playitas, 22860, Ensenada, Baja California, México — ²Instituto de Física, Universidad Nacional Autónoma de México, Circuito de la Investigación Científica S/N, Ciudad Universitaria, Distrito Federal, México

PO3.4 MON 17:00

Self-organized silver nanoparticles on rippled dielectric surfaces for SERS applications — ●SOPHIE CAMELIO¹, DAVID BABONNEAU¹, BERNARD HUMBERT², GUY LOUARN², SOPHIE ROUSSELET¹, FRÉDÉRIC PAILLOUX¹, ELLIOT VANDENHECKE¹, and VICTOR LE NADER² — ¹Institut Pprime, Poitiers, France — ²Institut des Matériaux Jean Rouxel, Nantes, France

PO3.5 MON 17:00

Photon Model and its Application to Nanoscience and Engineering — ●DMITRI YERCHUCK¹, ALLA DOVLATOVA², and ANDREY ALEXANDROV² — ¹Heat-Mass Transfer Institute of National Academy of Sciences of RB, Brovka Str.15, Minsk, 220072, dpy@tut.by — ²M.V.Lomonosov Moscow State University, Moscow, 119899

PO3.6 MON 17:00

Enhanced transmission of light through a nanohole embedded in the microcavity — PAVEL N. MELENTIEV¹, ANTON E. AFANASIEV¹, ARTUR A. KUZIN², ALEXANDR V. ZABLOTSKIY², ANDREY S. BATURIN², and ●VICTOR I. BALKIN¹ — ¹Institute for Spectroscopy Russian Academy of Sciences, Phizicheskaya str., 5, Troitsk, Moscow reg., 142190, Russia — ²Moscow Institute of Physics and Technology, Institutskiy per., 9, Dolgoprudny, Moscow reg., 141700, Russia

PO3.7 MON 17:00

Coherence of electrically excited propagating surface plasmons with a scanning tunneling microscope — ●TAO WANG, ELIZABETH BOER-DUCHEMIN, YANG ZHANG, GENEVIÈVE COMTET, and GÉRALD DUJARDIN — Institut des Sciences Moléculaires d'Orsay (ISMO), Bât 210, Université Paris-Sud, 91405 Orsay, France

PO3.8 MON 17:00

Josephson Infrared-Emitting Diode — ●NIKOLAY BAGRAEV, EDUARD DANILOVSKII, DMITRII GETS, LEONID KLYACHKIN, ANDREY KUDRYAVTSEV, ROMAN KUZMIN, ANNA MALYARENKO, and VLADIMIR MASHKOV — Ioffe Physical Technical Institute, St. Petersburg, Russia

PO3.9 MON 17:00

Nanoscale silicon p-n junctions — NIKOLAY BARGAEV¹, LEONID KLYACHKIN¹, ●ROMAN KUZMIN¹, ANNA MALYARENKO¹, and VLADIMIR MASHKOV² — ¹Ioffe

Physical-Technical Institute of the Russian Academy of Sciences, St.Petersburg, Russia — ²St. Petersburg State Polytechnical University, St.Petersburg, Russia

PO3.10 MON 17:00

Temperature independent guided mode resonance filters — ●MUHAMMAD RIZWAN SALEEM^{1,2}, SEPPO HONKANEN¹, and JARI TURUNEN¹ — ¹University of Eastern Finland, Department of Physics and Mathematics, FI-80101, Joensuu, Finland — ²National University of Sciences and Technology (NUST), School of Chemical and Materials Engineering (SCME), Sector H-12, Islamabad, Pakistan

PO3.11 MON 17:00

The GHz and THz Emission from the Silicon Nanosandwiches — NIKOLAY BAGRAEV, ●EDUARD DANILOVSKII, DMITRII GETS, LEONID KLYACHKIN, ANDREY KUDRYAVTSEV, ROMAN KUZMIN, and ANNA MALYARENKO — Ioffe Physical Technical Institute, St. Petersburg, Russia

PO3.12 MON 17:00

ZnO Nanorods on PMMA for White-Light Emission Using UV-Ozone Treatment — ●MING-SHIUN LIN¹, CHUN-WEI KU¹, and CHING-FUH LIN^{1,2} — ¹Graduate Institute of Photonics and Optoelectronics National Taiwan University, Taipei 106, Taiwan (R.O.C.). — ²Department of Electrical Engineering National Taiwan University, Taipei 106, Taiwan (R.O.C.).

PO3.13 MON 17:00

Bromoantimonite nano-glass doped with Er³⁺ — ●MESSAOUD LEGOUERA¹, DJAMEL YEZLI², MOSTAFA IEZID³, FAISSAL GOUMEIDANE⁴, FEYALA RAHAL⁵, and MARCEL POULAIN⁶ — ¹Département de Génie Mécanique, Université de Skikda, Algérie — ²Département de Génie Mécanique, Université de Skikda, Algérie — ³Laboratoire de Génie Mécanique, Université Mohamed Khider Biskra, Algerie — ⁴Laboratoire de Génie Mécanique, Université Mohamed Khider Biskra, Algerie — ⁵Laboratoire de Génie Mécanique, Université Mohamed Khider Biskra, Algerie — ⁶UMR Sciences Chimiques, Université Rennes 1, France

PO3.14 MON 17:00

Two-atom system for directional scattering — ●VASSILIS LEMBESSIS¹, OMAR AL-DOSSARY¹, and ZBIGNIEW FICEK² — ¹King Saud University, Riyadh, Saudi Arabia — ²KACST, Riyadh, Saudi Arabia

PO3.15 MON 17:00

Optical properties of CdS quantum dots in anisotropic glass of metal alkanooates — ●SVITLANA BUGAYCHUK¹, DARIA MELNIK¹, ANATOLIY TOLOCHKO¹, GERTRUDA KLIMUSHEVA¹, ANTONINA NAUMENKO², IGOR DMITRUK², VITALIJ ASAULA³, and TATIANA MIRNAYA³ — ¹Institute of Physics of NAS Ukraine, Kiev — ²Taras Shevchenko National University of Ukraine, Kiev — ³Institute of General and Inorganic Chemistry of NAS Ukraine, Kiev

PO3.16 MON 17:00

Plasmon coupling effects on the stationary and ultrafast transient optical responses of gold nanoparticle arrays — •XIAOLI WANG¹, PHILIPPE GOGOL², EDMOND CAMBRIL³, and BRUNO PALPANT¹ — ¹Ecole Centrale Paris, Laboratoire de Photonique Quantique et Moléculaire, UMR 8537 - CNRS, Ecole Normale Supérieure du Cachan, Grande Voie des Vignes, 92295 Châtenay-Malabry cedex, France — ²Institut d'Electronique Fondamentale, CNRS UMR 8622, Université Paris-Sud, 91405 Orsay cedex, France — ³Laboratoire de Photonique et de Nanostructures, CNRS UPR20, Route de Nozay, 91460 Marcoussis, France

PO3.17 MON 17:00

Measurement of Femtosecond Plasmon Response Function with Cross-correlation Dark-field Microscopy — •MIYUKI KUSABA, JUN OI, SHUTARO ONISHI, and FUMIHIKO KANNARI — Department of Electronics and Electrical Engineering, Keio University, 3-14-1, Hiyoshi, Kohoku-ku, Yokohama, 223-8522 Japan

PO3.18 MON 17:00

Effect of Y₂O₃ nanoparticles on propagation of ultrashort pulse in photon emission process of silica optical fibers made by MCVD solution doping technique — •SEYED FARSHAD AKHTARIAN FAR and ABDOLALI RAMAZANI — Institute of nanoscience and nanotechnology, university of kashan, Kashan, Iran

PO3.19 MON 17:00

Plasmonic 1D Nanostructures Prepared with DNA nanofibers — •HIDENOBU NAKAO¹, HIROSHI SHIIGI², and YOSHIHIKO TAKEDA¹ — ¹National Institute for Materials Science, Tsukuba, Japan — ²Osaka Prefecture University, Sakai, Japan

PO3.20 MON 17:00

RE:Yb:KLu(WO₄)₂ nanophosphors for white light emission by up-conversion — •WILLIAM BARRERA¹, MARIA CINTA PUJOL¹, CONCEPCIÓN CASCALES², JOAN JOSEP CARVAJAL¹, XAVIER MATEOS¹, ADOLFO SPEGHINI³, MARCO BETTINELLI³, MAGDALENA AGUILÓ¹, and FRANCESC DIAZ¹ — ¹Física i Cristal·lografia de Materials i Nanomaterials (FiCMA-FiCNA)-EMaS, Universitat Rovira i Virgili (URV), Campus Sescelades, c/ Marcel·lí Domingo, s/n, E-43007 Tarragona, Spain — ²Instituto de Ciencia de Materiales de Madrid, CSIC, Calle Sor Juana Inés de la Cruz, Cantoblanco, E-28049 Madrid, Spain — ³Dipartimento di Biotecnologie, Università di Verona and INSTM, UdR Verona, Ca'Vignal, Strada Le Grazie 15, 37134 Verona, Italy

PO3.21 MON 17:00

Properties of Luminescence for Nanopowders Compounds from the Langasite Family Doped with Erbium and Ytterbium — •ANA-MARIA VOICULESCU¹, SERBAN GEORGESCU¹, OCTAVIAN TOMA¹, and SILVIU NASTASE² — ¹National Institute for Laser, Plasma and Radiation Physics, Magurele-Ilfov, Romania — ²Polytechnic University of Bucharest, Bucharest, Romania

PO3.22 MON 17:00

Luminescence features for Silver Nanoparticles fabricated by laser ablation in liquids — •GUSTAVO TORCHIA¹, ENRIQUE NEYRA¹, FABIAN VIDELA¹, JOSE MARTIN RAMALLO LOPEZ², and LISANDRO GIOVANETTI² — ¹Centro de Investigaciones Ópticas (CIOP) CONICET La Plata-CIC BsAs Camino Centenario y 506 s/n M.B. Gonnet (1897), Pcia. Bs As, ARGENTINA — ²INIFTA CONICET La Plata- UNLP, Diag. 113 y 64, CC n° 16, suc.4, La Plata (1900), Pcia. Bs As, ARGENTINA

PO3.23 MON 17:00

TiO₂ Nanoparticles coated with Organic Dyes — •MIROSLAW SALAMONCZYK^{1,2}, PAULINA KRZYCZKOWSKA², AGNIESZKA NOWAK-KROL³, ANNA KOVAROVA⁴, and EWA GORECKA² — ¹College of Inter-Faculty Individual Studies in Mathematics and Natural Science, University of Warsaw, Zwirki i Wigury 93, 02-089 Warsaw, Poland — ²Laboratory of Physicochemistry of Dielectrics and Magnetics, Faculty of Chemistry, University of Warsaw, Zwirki i Wigury 101, 02-089 Warsaw, Poland — ³Institute of Organic Chemistry, Polish Academy of Science, M. Kasprzaka 44/52, 01-224 Warsaw, Poland — ⁴Institute of Chemical Technology, Technická 5, 166 28 Prague 6

PO3.24 MON 17:00

Preventing Tip Destruction in a Double-SNOM System by Mechanical Interaction between both Tips — •ANGELA E. KLEIN¹, NORIK JANUNTS¹, ANDREAS TÜNNERMANN^{1,2}, and THOMAS PERTSCH¹ — ¹Institute of Applied Physics, Abbe Center of Photonics, Friedrich-Schiller- Universität Jena, Max-Wien-Platz 1, 07743 Jena, Germany — ²Fraunhofer Institute of Applied Optics and Precision Engineering, Albert-Einstein-Strasse 7, 07745 Jena, Germany

PO3.25 MON 17:00

Preparation of cyanine-stained polystyrene based microbeads for fluorescent sensing and encoding — •PAULA POLI SOARES, DIEGO SANTOS PISONI, FABIANO SEVERO RODEMBUSCH, LEANDRA FRANCISCATO CAMPO, and CESAR LIBERATO PETZOLD — Universidade Federal do Rio Grande do Sul, Instituto de Química, Porto Alegre, Brazil

PO3.26 MON 17:00

Near-field optical imaging of dielectric-loaded plasmonic waveguides using heterodyne optical feedback on Er doped DFB fiber laser — •MATTHIEU ROBLIN¹, SYLVAIN GIRARD¹, HERVÉ GILLES¹, MATHIEU LAROCHE¹, JULIEN CARDIN², CHRISTIAN DUFOUR², and ULRIKE LÜDERS³ — ¹LIOA Lasers, Instrumentation Optique et Applications, Centre de recherche sur les Ions, les Matériaux et la Photonique (CIMAP), UMR 6252 CEA-CNRS-ENSICAEN, Université de Caen, 14050 Caen, France — ²NIMPH Nanostructures Intégrées pour la Microélectronique et la Photonique, Centre de recherche sur les Ions, les Matériaux et la Photonique (CIMAP), UMR 6252 CEA-CNRS-ENSICAEN, Université de Caen, 14050 Caen, France — ³CRISMAT, Laboratoire de cristallographie et sciences des matériaux, UMR 6508 CNRS-ENSICAEN ,

Université de Caen, 14050 Caen, France

PO3.27 MON 17:00

Complementary third order nonlinear response of silver nanoparticles and silicon quantum dots in an integrated system — ●LIS TAMAYO-RIVERA¹, LUIS RODRÍGUEZ-FERNÁNDEZ¹, RAÚL RANGEL-ROJO², ALICIA OLIVER¹, and JORGE ALEJANDRO REYES-ESQUEDA¹ — ¹Instituto de física, Universidad Nacional Autónoma de México, México D. F. 04510, México. — ²Departamento de Óptica, Centro de Investigación Científica y de Educación Superior de Ensenada, Apartado Postal 2732, Ensenada B. C. 22860, México

PO3.28 MON 17:00

Local modification of gold nanorods plasmon resonance with biomolecules — ●MAXIMILIEN COTTAT¹, NÉNÉ THIOUNE¹, ANA-MARIA GABUDEAN², NATHALIE LIDGI-GUIGUI¹, MONICA IOSIN², SIMION ASTILEAN², and MARC LAMY DE LA CHAPELLE¹ — ¹Laboratoire CSPBAT-UMR7244, UFR Santé Médecine Biologie Humaine-Université Paris13, 74 rue Marcel Cachin, 93017 Bobigny, France — ²Nanobiophotonics and Laser Microspectroscopy Center, Interdisciplinary Research Institute on Bio-Nano-Sciences, Faculty of Physics, Babes-Bolyai University, T. Laurian 42, 400271 Cluj-Napoca, Romania

PO3.29 MON 17:00

IR Plasmonic Antennas: Optimizing the Absorption Enhancement — ●LUKAS BRINEK^{1,2}, ONDREJ TOMANEC^{1,2}, JAKUB ZLAMAL^{1,2}, RADEK KALOUSEK^{1,2}, STEFAN A. MAIER³, and TOMAS SIKOLA^{1,2} — ¹Institute of Physical Engineering, Brno University of Technology, 682 96 Brno, Czech Republic — ²CEITEC BUT - Brno University of Technology, Technická 10, 616 69 Brno, Czech Republic — ³Experimental Solid State Group, Physics Department, Imperial College, London, United Kingdom

PO3.30 MON 17:00

Experimental observation of interference of surface plasmon polaritons by NSOM. — ●PETR DVORAK^{1,2}, TOMAS NEUMAN^{1,2}, DAVID SKODA^{1,2}, LUKAS BRINEK^{1,2}, RADEK KALOUSEK^{1,2}, and TOMAS SIKOLA^{1,2} — ¹Institute of Physical Engineering, Brno University of Technology, Brno 682 96, Czech Republic — ²CEITEC BUT, Brno University of Technology, Technická 2, 616 69 Brno, Czech Republic

PO3.31 MON 17:00

Semiconductor based nanoparticles for nonlinear optics — ●VASYL SHYNKAR¹, RADOSLAW KOLKOWSKI¹, MARCIN ZIELINSKI¹, DAN ORON², and JOSEPH ZYSS¹ — ¹Laboratoire de Photonique Quantique et Moléculaire, Ecole Normale Supérieure de Cachan, 61, avenue du Président Wilson, 94235 Cachan cedex, France — ²Weizmann Institute of Sciences, Department of the Physics of Complex Systems, Rehovot, Israel

PO3.32 MON 17:00

Four-Wave Mixing in Intersubband Transitions of Semiconductor Quantum Wells: Transient Ef-

fects — SPYRIDON KOSIONIS¹, ANDREAS TERZIS¹, and ●EMMANUEL PASPALAKIS² — ¹Physics Department, University of Patras, Patras 265 04, Greece — ²Materials Science Department, University of Patras, Patras 265 04, Greece

PO3.33 MON 17:00

Very thin asymmetric and nonlinear photonic multilayers for nonreciprocal and unidirectional devices — ●ABDOLRAHMAN NAMDAR¹ and FIROUZEH EBADIGARJAN² — ¹Faculty of Physics, University of Tabriz, Tabriz, Iran — ²Physics Department, Azarbaijan University of Tarbiat Moallem, Tabriz, Iran

PO3.34 MON 17:00

Optical properties of nanostructured bioinspired materials — ●ABDESSITIR DERAOU, ALAIN CORNET, and PIERRE DEFRANCE — Institute of Condensed Matter and Nanoscience (IMCN) Nanophysics (NAPS) Chemin du cyclotron, 2 B-1348 Louvain-la-Neuve Belgium

PO3.35 MON 17:00

Near-field optical scrutiny of metallic nanoparticles on graphene — JEN-YOU CHU¹, WEI-HUA WANG², and ●JUEN-KAI WANG³ — ¹Material and Chemical Research Laboratories, Industrial Technology Research Institute, Hsinchu, Taiwan, ROC — ²Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan, ROC — ³Center for Condensed Matter Sciences, National Taiwan University and Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan, ROC

PO3.36 MON 17:00

Two-Chromophors Nanowires: Original Architecture for the Control of the Light-Emitting Colour — ●ALEXANDRE GARREAU¹, FLORIAN MASSUYEAU¹, STÉPHANE CORDIER², YANN MOLARD², ERIC FAULQUES¹, JANY WÉRY¹, ALAIN BULO³, and JEAN-LUC DUVAÏL¹ — ¹Institut des Matériaux Jean Rouxel, Université de Nantes, CNRS, France — ²Sciences Chimiques de Rennes, Université de Rennes, CNRS, France — ³IRIM2F/LPEC, Université du Maine, CNRS, France

PO3.37 MON 17:00

Infrared Spectroscopy of Thin Films Using Surface Polaritons. — ●NADEZHDA N. NOVIKOVA and VLADIMIR A. YAKOVLEV — Institute for Spectroscopy of RAS, Troitsk, Moscow reg., Russia

PO3.38 MON 17:00

Tuning of plasmonic properties in gold nanoparticle arrays — ●SUSAN DERENKO¹, ANDREW SARANGAN², and THOMAS HÄRTLING¹ — ¹Fraunhofer Institute for Non-destructive Testing, Dresden Branch, Maria-Reiche-Str. 2, 01109 Dresden, Germany — ²Electro-Optics Program, University of Dayton, 300 College Park, Dayton, Ohio, USA

PO3.39 MON 17:00

Oxygen diffusion in silica nanoparticles for Near-Infrared emission applications — ●GIUSEPPE IOVINO¹, SIMOMPIETRO AGNELLO², and FRANCO MARIO GELARDI³

— ¹Department of Physics, University of Palermo, Palermo, Italy — ²Department of Physics, University of Palermo, Palermo, Italy — ³Department of Physics, University of Palermo, Palermo, Italy

PO3.40 MON 17:00

Inelastic Electron Tunneling Spectroscopy of Nanoporous Gold Film — HONGWEN LIU¹, TAKESHI FUJITA¹, ●RYUSUKE NISHITANI², WEI LI³, XINGYOU LANG¹, LING ZHANG¹, QIKUN XUE³, and MINGWEI CHEN¹ — ¹Tohoku University, Sendai, Japan — ²Kyushu Institute of Technology, Fukuoka, Japan — ³Tsinghua University, Beijing, China

PO3.41 MON 17:00

Optical properties of a three-dimensional photonic crystal — ●AMAURY AVOINE, HUGO FREDERICH, PHAN NGOC HONG, BRUNO GALLAS, LAURENT COOLEN, CATHERINE SCHWOB, and AGNÈS MAÎTRE — Institut de NanoSciences de Paris (INSP), Université Pierre et Marie Curie, CNRS, 4 place Jussieu, 75005 Paris, France

PO3.42 MON 17:00

Plasmonic Break Junctions: Controlling Optical Nanostructures with Dimensions between Atomic Contact and a Few Angstroms — ●BANAFSHEH ABASAHL, CHRISTIAN SANTSCHI, and OLIVIER J. F. MARTIN — Nanophotonics and Metrology Laboratory, Swiss Federal Institute of Technology (EPFL), CH-1015 Lausanne

PO3.43 MON 17:00

Synthesis of silver nanospheres for SERS applications — ●WILFREDO OTAÑO¹, BRYAN VÉLEZ¹, WILLIAM ORTIZ², SAMUEL HERNÁNDEZ², VÍCTOR PANTOJAS¹, and CARLOS ORTIZ¹ — ¹University of Puerto Rico at Cayey, Cayey, PR — ²University of Puerto Rico at Mayaguez, Mayaguez, PR

PO3.44 MON 17:00

Iron-doped LiNbO₃ as a substrate for photo-voltaic trapping and manipulation of nano-objects — ●HÉCTOR BURGOS¹, ÁNGEL GARCÍA-CABAÑES¹, MERCEDES CARRASCOSA¹, and FERNANDO AGULLÓ-LÓPEZ^{1,2} — ¹Dpto. de Física de Materiales, Universidad Autónoma de Madrid, 28049 Madrid, Spain — ²CMAM, Universidad Autónoma de Madrid, 28049 Madrid, Spain

PO3.45 MON 17:00

Scanning Fluorescent Probe Near-field Microscopy for LDOS Mapping — VALENTINA KRACHMALNICOFF, ●DA CAO, ETIENNE CASTANIÉ, RÉMI CARMINATI, and YANNICK DE WILDE — Institut Langevin - ESPCI Paris-Tech, Paris, France

PO3.46 MON 17:00

Chiroptical Materials based on a Racemic Polymer and on an Achiral Chromophore Guest — ●PAOLA RIZZO and GAETANO GUERRA — Dipartimento di Chimica e Biologia, Università di Salerno, via Ponte don Melillo, 84084 Fisciano (Salerno), Italy

PO3.47 MON 17:00

Nanoscale imaging of heterogeneous polymers by scanning near-field ellipsometry microscopy — ●AYSEGUL CUMURCU¹, JOOST DUVIGNEAU¹, PEPIJN W. H. PINKSE², PETER SCHÖN¹, and JULIUS G. VANCOS¹ — ¹Materials Science and Technology of Polymers, University of Twente, PO Box 217, 7500 AE Enschede, The Netherlands. — ²MESA+ Institute for Nanotechnology, University of Twente, PO Box 217, 7500 AE Enschede, The Netherlands.

PO3.48 MON 17:00

MultiProbe NanoHeating and Temperature Mapping of Suspended Carbon Nanotubes — ●AARON LEWIS¹, AVRAHAM ISRAEL², RIMMA DEKHTER², and ORI AVAYU² — ¹Hebrew University of Jerusalem, Jerusalem, Israel — ²Nanonics Imaging Ltd, Jerusalem, Israel

SO-2: Self-organized surfaces, growth and fast transitions

Chaired by C. S. Casari, Milano, IT

Time: Tuesday 8:30–10:00

Location: Amphi. Portier

SO-2.1 TUE 8:30

Elucidation of the Inner Structure of the Strain-Relief Trigonal-Network of Ag Bilayer on Pt(111) by Identifying Buried Partial Dislocations and Interface-Confined Mixing — ●KAMEL AÏT-MANSOUR¹, HARALD BRUNE¹, DANIELE PASSERONE², MICHAEL SCHMID³, ANDREAS BUCHSBAUM³, PETER VARGA³, ROMAN FASEL², and OLIVER GRÖNING² — ¹Institute of Condensed Matter Physics, Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland — ²Empa, Swiss Federal Laboratories for Materials Science and Technology, nanotech@surfaces Laboratory, Dübendorf, Switzerland — ³Institut für Angewandte Physik, Technische Universität Wien, Wien, Austria

SO-2.2 TUE 8:45

Self-Organization of Ag Nano-Structures on Vicinal Metallic Surfaces Studied by Grazing Incidence X-ray Diffraction — ●AMANDINE BELLEC¹, ALESSANDRO COATI¹, ALINA VLAD¹, MICHÈLE SAUVAGE-SIMKIN¹, and YVES GARREAU^{1,2} — ¹Synchrotron SOLEIL / ligne SixS, L'Orme des Merisiers - Saint-Aubin - BP 48 - 91192 Gif-sur-Yvette Cedex, France — ²Laboratoire Matériaux et Phénomènes Quantiques, Université Paris Diderot-Paris 7, Bâtiment Condorcet, 10, rue Alice Domon et Léonie Duquet, 75205 Paris Cedex 13, France

SO-2.3 TUE 9:00

Selective Growth of Nanostructures - Nucleation on Pre-patterned Surfaces — MIROSLAV KOLÍBAL^{1,2}, JAN

ČECHAL^{1,2}, MIROSLAV BARTOŠÍK^{1,2}, JINDŘICH MACH^{1,2}, TOMÁŠ ŠAMOŘIL^{1,2}, STANISLAV VOBORNÝ^{1,2}, LIBUĚE DITTRICHOVÁ^{1,2}, RADEK KALOUSEK^{1,2}, JIŘÍ SPOUSTA^{1,2}, and •TOMÁŠ ŠIKOLA^{1,2} — ¹Institute of Physical Engineering, Brno University of Technology, Brno, Czech Republic — ²CEITEC, Brno University of Technology, Brno, Czech Republic

SO-2.4 TUE 9:15

Molecular dynamics simulations of cluster growth in nanostructured materials. — •PASCAL BRAULT, ANNE-LISE THOMANN, AMAEL CAILLARD, NADJIB SEMMAR, MIREILLE GAILLARD, ELIANE AMIN-CHALHOUB, and CHANTAL BOULMER-LEBOGNE — GREMI UMR7344 CNRS-Université d'Orléans BP6744, 45067 ORLEANS Cedex 2, France

SO-2.5 TUE 9:30

Matrix induced in-situ growth of crystalline Au nanoparticles — •CHRISTIAN KATZER¹, PETER MICHALOWSKI¹, MARKUS WESTERHAUSEN¹, ROMINA

DIENER¹, SANDRA CHRISTKE¹, FRANK SCHMIDL¹, GABRIELE SCHMIDL², JAQUELINE JATSCHKA², ROBERT MÜLLER², and WOLFGANG FRITZSCHE² — ¹Institute of Solid State Physics, Friedrich-Schiller-University Jena, Jena, Germany — ²Institute of Photonic Technology, Jena, Germany

SO-2.6 TUE 9:45

Fe film magnetization switching by temperature control of a magnetically active template — •MAURIZIO SACCHI^{1,2}, MASSIMILIANO MARANGOLO², CARLO SPEZZANI³, ROMAIN BREITWIESER⁴, HORIA POPESCU², RENAUD DELAUNAY⁴, MAHMOUD EDDRIEF¹, and VICTOR ETGENS¹ — ¹Institut des NanoSciences de Paris, UPMC Paris 06, CNRS UMR 7588, 140 rue de Lourmel, 75015 Paris, France. — ²Synchrotron SOLEIL, B.P. 48, 91192 Gif-sur-Yvette, France — ³Sincrotrone Trieste S.C.p.A., Area Science Park, S.S.14, Km 163.5, I-34012, Trieste, Italy — ⁴Laboratoire de Chimie Physique - Matière et Rayonnement, UPMC Paris 06, CNRS UMR 7614, 11, rue P. et M. Curie, 75005 Paris, France

NE-2: Molecular contacts

Chaired by K. H. Ernst, Dübendorf, CH

Time: Tuesday 8:30–10:15

Location: Amphi. Richet

Invited NE-2.1 TUE 8:30
Interface enhanced high T_c superconductivity in single unit cell FeSe films — •QI-KUN XUE — Department of Physics, Tsinghua University, Beijing 100084, China

NE-2.2 TUE 9:00

Molecule/electrode interface energetics in nanocontact molecular junction: a "Transition Voltage Spectroscopy" study — •GUILLAUME RICOEUR, STÉPHANE LENFANT, DAVID GUÉRIN, and DOMINIQUE VUILLAUME — Institut d'Electronique Microélectronique et Nanotechnologie (IEMN), CNRS, University of Lille, Villeneuve d'Ascq, France

NE-2.3 TUE 9:15

Conduction properties of a photochromic Dithienylethene molecule attached to magnetic nickel leads. — •KANCHAN ULMAN¹, SHOBHANA NARASIMHAN¹, and ANNA DELIN² — ¹Theoretical Sciences Unit, Jawaharlal Nehru Centre for Advanced Scientific Research Jakkur, Bangalore 560064, India — ²Applied Materials Physics, Department of Materials Science and Engineering, Royal Institute of Technology, SE-100 44 Stockholm, Sweden and SeRC (Swedish e-Science Research Center),

Royal Institute of Technology, SE-100 44 Stockholm, Sweden

NE-2.4 TUE 9:30

Dynamical Coulomb Blockade in Nano-Scale Electrical Contacts — CHRISTOPHE BRUN^{1,2}, •KONRAD H. MÜLLER³, I-PO HONG^{1,4}, FRANÇOIS PATHEY¹, CHRISTIAN FLINDT³, and WOLF-DIETER SCHNEIDER¹ — ¹Institut de Physique de la Matière Condensée, Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne, Switzerland — ²Institut des Nanosciences de Paris, CNRS-UMR 7588, Université Pierre et Marie Curie-Paris 6 UPMC, F-75252, Paris, France — ³Département de Physique Théorique, Université de Genève, CH-1211 Genève, Switzerland — ⁴Institut für Experimentelle und Angewandte Physik, Christian-Albrechts-Universität zu Kiel, D-24098 Kiel, Germany

Invited NE-2.5 TUE 9:45

A microscopic view of single molecule contacts — •RICHARD BERNDT — Institut für Experimentelle und Angewandte Physik, Christian-Albrechts-Universität zu Kiel, 24098 Kiel, Germany

NO-2: Detection of single nano-objects and plasmonics

Chaired by R. Hillenbrand, San Sebastian, ES

Time: Tuesday 8:30–10:15

Location: Pavillon 1

Invited NO-2.1 TUE 8:30
Label-free optical sensing and microscopy at the

single-molecule level — •VAHID SANDOGHDAR — Max Planck Institute for the Science of Light

NO-2.2 TUE 9:00

Plasmonic Patch Antenna: Towards an Efficient Single Photon Source — ●BENJAMIN HABERT¹, FRANCOIS MARQUIER¹, JEAN-JACQUES GREFFET¹, FLORIAN BIGOURDAN¹, AGNÈS MAÎTRE², CHÉRIF BELACEL², PASCALE SENELLART³, and BENOÎT DUBERTRET⁴ — ¹Laboratoire Charles Fabry, Institut Optique, Palaiseau, France — ²Institut des NanoSciences de Paris, Paris, France — ³Laboratoire de Photonique et de Nanostructures, Marcoussis, France — ⁴Ecole Supérieure de Physique et de Chimie Industrielles, Paris, France

NO-2.3 TUE 9:15

Coupling to a plasmonic crystal : broadband absorption and far field plasmons re-emission — ●HUGO FREDERICH^{1,2}, FANGFANG WEN^{1,2,4}, JULIEN LAVERDANT^{1,2,3}, LAURENT COOLEN^{1,2}, CATHERINE SCHWOB^{1,2}, and AGNÈS MAÎTRE^{1,2} — ¹Université Pierre et Marie Curie-Paris 6, UMR 7588, INSP, 4 place Jussieu, PARIS cedex 05, France — ²CNRS, UMR7588, INSP, Paris cedex 05, France — ³LPMCN, Université de Lyon, Université Lyon 1 and CNRS, UMR 5586, F-69622 Villeurbanne, France — ⁴Laboratory for Nanophotonics, Rice University, 6100 Main St. Houston, TX, 77005, USA

NO-2.4 TUE 9:30

Plasmon-Controlled Emission on Fluorophore-

doped Core/Shell Metal Nanoparticles — HUIMIN SU¹, YONGCHUN ZHONG^{1,2}, TIAN MING³, JIANFANG WANG³, and ●KAM SING WONG¹ — ¹Department of Physics, The Hong Kong University of Science and Technology, Kowloon, Hong Kong, China — ²Key Laboratory of Optoelectronic Information and Sensing Technologies of Guangdong Higher Education Institutes, Jinan University, Guangzhou, China — ³Department of Physics, The Chinese University of Hong Kong, Shatin, Hong Kong, China

NO-2.5 TUE 9:45

Experimental and simulated TPL imaging of crystalline gold nanorods — ●ALEXANDRE TEULLE, SVIATLANA VIARBITSKAYA, RENAUD MARTY, JADAB SHARMA, ARNAUD ARBOUET, ERIK DUJARDIN, and CHRISTIAN GIRARD — Centre d'Elaboration des Matériaux et d'Etudes Structurales (CEMES) - 29 rue J. Marvig BP94347 31055 Toulouse Cedex 4, France

NO-2.6 TUE 10:00

Size Resonances and Hybridization of Metallic Nanoholes — ●ADI SALOMON¹, MARCIN ZIELINSKI², RADOSLAW KOLKOWSKI², JOSEPH ZYSS², and YEHIAM PRIOR¹ — ¹Department of chemical physics, Weizmann Institute of Science, Rehovot, Israel — ²Laboratoire de Photonique Quantique et Moléculaire, Ecole Normale Supérieure de Cachan, Cachan, France

NB-1: AFM: Imaging of Biomolecules I

Chaired by L. Auvray, Paris, FR

Time: Tuesday 8:30–10:15

Location: Pavillon 3

NB-1.1 TUE 8:30

Atomic force microscopy study of DNA-wrapped single-walled carbon nanotubes in aqueous conditions — ●TAKUYA HAYASHIDA and KAZUO UMEMURA — Tokyo University of Science, Tokyo, Japan

NB-1.2 TUE 8:45

Quantitative electric double layer force mapping and local charge density measurements of biological molecules by FM-AFM in aqueous solutions — ●KEN-ICHI UMEDA¹, YOSHIKI HIRATA², NORIAKI OYABU^{1,3}, KEI KOBAYASHI¹, KAZUMI MATSUSHIGE¹, and HIROFUMI YAMADA¹ — ¹Kyoto University, Kyoto, Japan — ²National Institute of AIST, Tsukuba, Japan — ³JST/Adv. Meas. & Analysis

NB-1.3 TUE 9:00

Atomic force microscopy of dispersed carbon nanotubes — ●KAZUO UMEMURA, TAKUYA HAYASHIDA, TOMOHIRO HIRATA, DAISUKE NII, YUUKI YAMAGUCHI, and SHIGEYUKI HIRAYAMA — Faculty of Science, Tokyo University of Science, Shinjuku, Tokyo 1628601, Japan

NB-1.4 TUE 9:15

Fabrication of Biocompatible Nanomembranes on Basis of Functional Self-Assembled Monolayers — ●NIKOLAUS MEYERBRÖKER¹, WOLFGANG ECK¹, MICHAEL ZHARNIKOV¹, and ZI-AN LI² — ¹Angewandte Physikalische Chemie, Universität Heidelberg, 69120 Heidelberg, Germany — ²Fakultät für Physik und Center for NanoIntegration, Universität Duisburg-Essen, 47048 Duisburg, Germany

Invited

NB-1.5 TUE 9:30

High-Speed Atomic Force Microscopy (HS-AFM) monitors dynamic membrane protein interaction and assembly — ●SIMON SCHEURING, IGNACIO CASUSO, and ADAI COLOM — Institut Curie, Paris, France

NB-1.6 TUE 10:00

Application of Atomic Force Microscopy in Pharmaceutical Research — ●MATTHIAS LAUER, MONIRA SIAM, and OLAF GRASSMANN — F. Hoffmann La-Roche Ltd., Discovery Technologies, CH-4070 Basel, Switzerland

NM-1: Optical properties

Chaired by S. K. Lai, Taipei, TW

Time: Tuesday 8:30–10:15

Location: Pavillon 4

NM-1.1 TUE 8:30

A reversible optical to microwave quantum interface — ●DAVID VITALI¹, SHABIR BARZANJEH², MEHDI ABDI³, GERARD MILBURN⁴, and PAOLO TOMBESI¹ — ¹School of Science and Technology, Physics Division, University of Camerino, Camerino (MC), Italy — ²Department of Physics, Faculty of Science, University of Isfahan, Hezar Jerib, 81746-73441, Isfahan, Iran — ³Department of Physics, Sharif University of Technology, Tehran, Iran — ⁴Centre for Engineered Quantum Systems, School of Physical Sciences, The University of Queensland, Saint Lucia, QLD 4072, Australia

NM-1.2 TUE 8:45

Photonic crystal nanomembranes for cavity quantum optomechanics — ●THOMAS ANTONI^{1,2}, AURÉLIE KUNH¹, KEVIN MAKLES¹, TRISTAN BRIANT¹, PIERRE-FRANÇOIS COHADON¹, ANTOINE HEIDMANN¹, RÉMY BRAIVE², ALEXIOS BEVERATOS², IZO ABRAM², LUC LE GRATIET², ISABELLE SAGNES², and ISABELLE ROBERT-PHILIP² — ¹Laboratoire Kastler Brossel, UPMC-ENS-CNRS, Case 74, 4 place Jussieu, F75252 Paris Cedex 05, France — ²Laboratoire de Photonique et Nanostructures LPN-CNRS, UPR-20, Route de Nozay, 91460 Marcoussis, France

NM-1.3 TUE 9:00

Optomechanical coupling in a two-dimensional photonic crystal defect cavity — EMANUEL GAVARTIN¹, ●RÉMY BRAIVE^{2,3}, ISABELLE SAGNES², OLIVIER ARCIZET⁴, ALEXIOS BEVERATOS², TOBIAS KIPPENBERG^{1,5}, and ISABELLE ROBERT² — ¹Ecole Polytechnique Fédérale de Lausanne EPFL, 1015 Lausanne, Switzerland — ²Laboratoire de Photonique et de Nanostructures, Route de Nozay, 91460 Marcoussis, France — ³Université Paris Denis Diderot, 75205 Paris, Cedex 13, France — ⁴Institut Néel, 25 rue des Martyrs, 38042 Greno-

ble, France — ⁵Max Planck Institut für Quantenoptik, 85748 Garching, Germany

NM-1.4 TUE 9:15

Detection of Resonant Cantilever Motion Using the Evanescent Fields of Silicon Nanophotonic Waveguides — ●VINCENT SAUER^{1,2}, ZHU DIAO^{1,2}, MARK FREEMAN^{1,2}, and WAYNE HIEBERT^{1,2} — ¹University of Alberta, Edmonton, Alberta, Canada — ²National Institute for Nanotechnology, Edmonton, Alberta, Canada

NM-1.5 TUE 9:30

Nanomechanical properties of thin films of crosslinked Gold Nanoparticles — ●JAN HELMUT SCHROEDER^{1,2}, ALEXEY PETROV¹, HENDRIK SCHLICKE¹, HENDRIK SCHLICKE¹, SARA MEHDIZADEH TAHERI², STEPHAN FOERSTER², HORST WELLER¹, TOBIAS VOSSMEYER¹, and MARTIN TREBBIN² — ¹Institute of Physical Chemistry, University of Hamburg, 20146 Hamburg, Germany — ²Bayreuth Center for Colloids, University of Bayreuth, 95447 Bayreuth, Germany

NM-1.6 TUE 9:45

A Hybrid On-chip Optomechanical Transducer for Ultra-sensitive Force Measurements — ●EMANUEL GAVARTIN¹, PIERRE VERLOT¹, and TOBIAS J. KIPPENBERG^{1,2} — ¹Ecole Polytechnique Fédérale de Lausanne, EPFL, 1015 Lausanne, Switzerland — ²Max-Planck-Institut für Quantenoptik, Hans-Kopfermann-Straße 1, 85748 Garching, Germany

NM-1.7 TUE 10:00

A Conceptually New Approach to Nanoionic Functional Systems — RIVKA MAOZ, JONATHAN BERSON, DORON BURSHTAIN, ASSAF ZEIRA, and ●JACOB SAGIV — Department of Materials and Interfaces, Weizmann Institute of Science, Rehovot 76100, Israel

GT-1: Graphene: Transport properties and devices

Chaired by J.A. Stroscio, Gaithersburg, US

Time: Tuesday 8:30–10:15

Location: Amphi. Pasquier

GT-1.1 TUE 8:30

Using Chemically Modified Graphene for Electronics and Sensing — ●PAUL SHEEHAN¹, WOO LEE¹, ARNALDO LARACUENTE¹, SCOTT WALTON¹, JEREMY ROBINSON¹, CY TAMANAH¹, THOMAS REINECKE¹, SANDRA HERNANDEZ³, and RORY STINE² — ¹U.S. Naval Research Laboratory, Washington, DC, USA — ²Nova Research, Alexandria, VA, USA — ³National Research Council, Washington, DC

GT-1.2 TUE 8:45

Ionic-liquid-Gate Control of Bilayer Graphene —

●YUSUKE YAMASHIRO, TAKASHI IKUTA, YASUhide OHNO, KENZO MAHASHI, KOICHI INOUE, and KAZUHIKO MATSUMOTO — Osaka University, Osaka, Japan

Invited

GT-1.3 TUE 9:00

Gapped ground state in suspended bilayer graphene — FRANK FREITAG, JELENA TRBOVIC, ANDREAS BAUMGARTNER, ROMAIN MAURAND, MARKUS WEISS, and ●CHRISTIAN SCHÖNENBERGER — Department of Physics, University of Basel, Klingelbergstrasse 82, CH-4056 Basel, Switzerland

GT-1.4 TUE 9:30

Quantum Hall measurements on epitaxial graphene with oxygen adsorption — ●EMILIANO PALLECCHI¹, MOHAMED RIDENE¹, DIMITRIS KAZAZIS¹, CLAIRE MATHIEU¹, FELICIAN SCHOPFER², WILFRID POIRIER², DOMINIQUE MAILLY¹, and ABDELKARIM OUERGI¹ — ¹Laboratoire de Photonique et Nanostructures, Paris, France — ²Laboratoire National de jétrologie et d'Essais, Paris, France

GT-1.5 TUE 9:45

Fully Spin-dependent Transport Property of

Graphene Nanoflake — ●TOMOYA ONO — Graduate School of Engineering, Osaka University, Suita, Osaka, Japan

GT-1.6 TUE 10:00

Highly Sensitive Biosensors Based on Fragment Antigen-Binding Modified Graphene Field-Effect Transistors — ●YASUHIDE OHNO, SHOGO OKAMOTO, KENZO MAHASHI, and KAZUHIKO MATSUMOTO — The Institute of Scientific and Industrial Research, Osaka University, 8-1 Mihogaoka, Ibaraki, Osaka 567-0047, Japan

SN-2: Nanomagnetism II

Chaired by V. Repain, Paris, FR

Time: Tuesday 8:30–10:15

Location: Grand Amphi.

Invited SN-2.1 TUE 8:30
Chiral spin textures at metal surfaces — ●STEFAN BLÜGEL — Peter Grünberg Institut and Institute for Advanced Simulation, Forschungszentrum Jülich and JARA, D-52425 Jülich, Germany

SN-2.2 TUE 9:00

Magnetic Properties of Surface Alloys — ●SANANDA BISWAS¹, SHOBHANA NARASIMHAN¹, GUSTAV BIHLMAYER², and STEFAN BLUEGEL² — ¹Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India — ²Forschungszentrum, Juelich, Germany

SN-2.3 TUE 9:15

Real-space Observation of an Orthogonal Spin Ordering on Antiferromagnetic Mn₃N₂(001) Nanopyramids — KANGKANG WANG and ●ARTHUR R. SMITH — Ohio University Nanoscale & Quantum Phenomena Institute, Athens, OH 45701, USA

SN-2.4 TUE 9:30

Conical Spin Spiral State in an ultra-thin Film driven by higher-order Spin Interactions — YASUO YOSHIDA^{1,2}, SILKE SCHRÖDER³, ●PAOLO FERRIANI³, DAVID SERRATE^{1,4}, ANDRÉ KUBETZKA¹, KIRSTEN VON BERGMANN¹, STEFAN HEINZE³, and ROLAND WIESENDANGER¹ — ¹Institute of Applied Physics, University of Hamburg, Hamburg, Germany — ²Institute of

Solid State Physics, University of Tokyo, Tokyo, Japan — ³Institute of Theoretical Physics and Astrophysics, University of Kiel, Kiel, Germany — ⁴Instituto de Nanociencia de Aragón, Universidad de Zaragoza, Saragossa, Spain

SN-2.5 TUE 9:45

Artificial kagome arrays of nanomagnets: a frozen dipolar spin ice — ●NICOLAS ROUGEMAILLE¹, FRANCOIS MONTAIGNE², BENJAMIN CANALS¹, AMANDINE DULUARD², DANIEL LACOUR², MICHEL HEHN², RACHID BELKHOUS^{3,4}, OLIVIER FRUCHART¹, SOULIMAN EL MOUSSAOUI^{3,4}, AZZEDINE BENDOUNAN^{3,4}, and FRANCESCO MACCHEROZZI^{3,4} — ¹Institut Néel, CNRS - UJF, 25 rue des Martyrs, F-38042 Grenoble Cedex 9, France — ²Institut Jean Lamour, CNRS - Nancy Université, BP 239, F-54506 Vandoeuvre, France — ³SOLEIL synchrotron, L'Orme des Merisiers Saint-Aubin, 91192 Gif-sur-Yvette, France — ⁴ELETTRA, Sincrotrone Trieste, I-34012 Basovizza, Trieste, Italy

SN-2.6 TUE 10:00

Bias voltage dependent magnetic contrast on complex magnetic surfaces — ●KRISZTIAN PALOTAS¹, WERNER HOFER², and LASZLO SZUNYOGH¹ — ¹Budapest University of Technology and Economics, Department of Theoretical Physics, Budapest, Hungary — ²University of Liverpool, Surface Science Research Centre, Liverpool, United Kingdom

SC-2: Quantum dots analysis

Chaired by T. Takahashi, Tokyo, JP

Time: Tuesday 8:30–10:00

Location: Salle du Conseil

SC-2.1 TUE 8:30
Non-stationary effects and charge trapping in the system of interacting quantum dots — ●VLADIMIR MANTSEVICH¹, NATALYA MASLOVA¹, and PETR ARSEYEV² — ¹Moscow State University, Moscow, Russia — ²Lebedev Physical Institute of RAS, Moscow, Russia

SC-2.2 TUE 8:45

Synthesis of Core/Shell Quantum Dots for Applying in Biological Context — ●FATEMEH MIR NAJAFI ZADEH¹, FAN WANG², PETER REECE², and JOHN STRIDE^{1,3} — ¹School of Chemistry, University of New South Wales, Sydney, Australia — ²School of Physics, University of New South Wales, Sydney, Australia — ³Bragg Institute, Australian Nuclear Science and Technology Organisation, Sydney, Australia

SC-2.3 TUE 9:00

Excitonic States in a Semiconductor Quantum Dot on Ultra Flat Hexagonal Boron Nitride — ●SEONG JOON LIM¹, HONGWOO BAEK¹, UNGDON HAM¹, KYUNG-SANG CHO², MINJUN LEE¹, JEONGHOON KWON¹, BYOUNG LYONG CHOI², and YOUNG KUK¹ — ¹Department of Physics, Seoul National University, Seoul, South Korea — ²Samsung Advanced Institute of Technology (SAIT), Yongin-si, South Korea

SC-2.4 TUE 9:15

Electronic structure of cleaved InAsP/InP(001) Quantum Dots studied by Scanning Tunneling Microscopy and Spectroscopy — ●FAIN BRUNO, ROBERT-PHILIP ISABELLE, BEVERATOS ALEXIOS, DAVID CHRISTOPHE, WANG ZHAO-ZHONG, SAGNES ISABELLE, and GIRARD JEAN-CHRISTOPHE — Laboratoire de Photonique et de Nanostructures, Route de Nozay, 91460 Marcoussis, France

SC-2.5 TUE 9:30

Kinetic Monte-Carlo simulations and cross-sectional scanning tunneling microscopy as tools to investigate the heteroepitaxial capping of self-assembled quantum dots — ●JORIS KEIZER¹, PETER SMEREKA², JOSE ULLOA³, ALVARO GUZMAN³, ADRIAN HIERRO³, and PAUL KOENRAAD¹ — ¹Eindhoven University of Technology, Eindhoven, The Netherlands — ²University of Michigan, Ann Arbor, Michigan, United States — ³Institute for Systems based on Optoelectronics and Microtechnology (ISOM), Universidad Politecnica de Madrid, Spain

SC-2.6 TUE 9:45

Assembly of quantum dot dimers and their investigation by simultaneous scanning force and fluorescence microscopy — ●SVEN STÖTTINGER¹, TOBIAS FISCHER¹, XIANGXING XU¹, GERALD HINZE¹, CHEN LI², KLAUS MÜLLEN², and THOMAS BASCHÉ¹ — ¹Institute for Physical Chemistry, Johannes Gutenberg University, Mainz, Germany — ²Max Planck Institute for Polymer Research, Mainz, Germany

25: Coffee Break

Time: Tuesday 10:15–10:30

Location: Coffee Break

Coffee Break

SO-3: Surface properties I

Chaired by G. Le Lay, Marseille, FR

Time: Tuesday 10:45–12:15

Location: Amphi. Portier

SO-3.1 TUE 10:45

Study of Epitaxial Bi₂Se₃ film on Metal Substrate — ●JEONG HEUM JEON, WON-JUN JANG, and SE-JONG KAHNG — Department of Physics, Korea University, 5-1 Anam-dong, Seong-buk Gu, Seoul 136-713, Korea

SO-3.2 TUE 11:00

Imaging the impact of single oxygen atoms on the electronic order and disorder in Bi_{2+y}Sr_{2-y}CaCu₂O_{8+x} — ●ILIJA ZELJKOVIC¹, GENDA GU², ROBERT S. MARKIEWICZ³, and JENNIFER E. HOFFMAN¹ — ¹Harvard University, Cambridge, MA, U.S.A. — ²Brookhaven National Laboratory, Upton, NY, U.S.A. — ³Northeastern University, Boston, MA, U.S.A.

SO-3.3 TUE 11:15

An Unusual Reconstruction on the Al₂Cu(001) Surface, Driven by Covalent Bonding — ●ÉMILIE GAUDRY, LAURA SERKOVIC LOLI, JULIAN LEDIEU, MARIE-CÉCILE DE WEERD, and VINCENT FOURNÉE — Institut Jean Lamour, École des Mines, Parc de Saurupt, Nancy, France

SO-3.4 TUE 11:30

Characteristics of Si(111) surface with embedded C₈₄ molecules — ●MON-SHU HO^{1,3}, CHIH-PONG HUANG¹, WAN-SHENG SU², CHIH-CHUAN SU¹, and MENG-FAN CHANG⁴ — ¹Department of Physics, National Chung Hsing University, Taichung 402, Taiwan — ²National Center for High-Performance Computing, Tainan 741, Taiwan — ³Institutes of Nanoscience, National Chung Hsing University, Taichung 402, Taiwan — ⁴Department of Electrical Engineering, National Tsing Hua University, Hsinchu 300, Taiwan

SO-3.5 TUE 11:45

STM/S studies of Superconducting Nanoparticles on Graphite — ●TOMOHIRO MATSUI, HIDETO TAKEI, and HIROSHI FUKUYAMA — Department of Physics, Graduate School of Science, The University of Tokyo

SO-3.6 TUE 12:00

Virus-based Piezoelectric Energy Generation — ●SEUNG-WUK LEE — Department of Bioengineering, University of California, Berkeley, Berkeley, California, 94720, U. S. A.

NE-3: Molecular inelastic tunneling

Chaired by N. Lorente, Bellaterra, ES

Time: Tuesday 10:45–12:15

Location: Amphi. Richet

NE-3.1 TUE 10:45

Inelastic Electron Tunneling through Molecular Monolayers from First Principles —

•GIUSEPPE FOTI^{1,2}, DANIEL SANCHEZ-PORTAL^{1,2}, ANDRES ARNAU^{1,2,3}, and THOMAS FREDERIKSEN² — ¹Centro de Fisica de Materiales, Centro Mixto CSIC-UPV, Donostia-San Sebastian, Spain — ²Donostia International Physics Center, Donostia-San Sebastian, Spain — ³Departamento de Fisica de Materiales, UPV/EHU, Facultad de Quimica, Donostia-San Sebastian

NE-3.2 TUE 11:00

Single-molecule spectroscopy of terthiophene adsorbed on Au(111): electronic and vibronic properties —

•NORBERT MAURER, BERNDT KOSLOWSKI, and PAUL ZIEMANN — Institute of Solid State Physics, University of Ulm, D-89069 Ulm, Germany

NE-3.3 TUE 11:15

Electronic properties and STM induced manipulation of single Ni-TPP molecules adsorbed on Si(100) surface at 5K: electronic control of a bistable function —

•HATEM LABIDI¹, HENRY PINTO², JERZY LESZCZYNSKI², and DAMIEN RIEDEL¹ — ¹Institut des Sciences Moléculaire d'Orsay, Bâtiment 210, Université Paris

Sud. 91405 Orsay Cedex, France — ²Interdisciplinary Center for Nanotoxicity, Department of Chemistry, Jackson State University, Jackson, Mississippi 39217-0510, USA

NE-3.4 TUE 11:30

The electronic transport through single noble gas atoms —

•LINDA ANGELA ZOTTI¹, MARIUS BURKLE², YANNICK J. DAPPE³, FABIAN PAULY², and JUAN CARLOS CUEVAS¹ — ¹Universidad Autonoma de Madrid, Departamento de Fisica Teorica de la Materia Condensada, Madrid, Spain — ²Institut für Theoretische Festkörperphysik and DFG Center for Functional Nanostructures, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany — ³Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), UMR CNRS 7504, Strasbourg Cedex, France

Invited

NE-3.5 TUE 11:45

Inelastic Electron Tunnelling: Single-Molecule Dynamics and Unidirectional Movement —

•KARL-HEINZ ERNST — Empa, Swiss Federal Laboratories for Materials Science and Technology, Überlandstrasse 129, CH-8600 Dübendorf — University of Zurich, Winterthurerstrasse 190, CH-8057 Zürich

NO-3: Light emission stimulated by electrons

Chaired by N. F. van Hulst, Barcelona, ES

Time: Tuesday 10:45–12:30

Location: Pavillon 1

Invited

NO-3.1 TUE 10:45

Molecular Plasmonics at the Nanoscale —

•ZHENCHAO DONG — University of Science and Technology of China, Hefei, China

NO-3.2 TUE 11:15

Controlling molecular organization for localized light emission —

•CELINE FIORINI-DEBUSSCHERT¹, IVAN BERLINE¹, AMANDINE BOICHEUX¹, MAUD JAOUEN¹, LUDOVIC DOUILLARD¹, FABRICE CHARRA¹, AMINA BAKHMA², DAVID BLEGER², FABRICE MATHEVET², DAVID KREHER², and ANDRE-JEAN ATTIAS² — ¹CEA-IRAMIS, SPCSI, Nanophotonics Laboratory 91191 Gif-sur-Yvette, France — ²Laboratoire de Chimie des Polymeres-UMR 7610, Université Pierre et Marie Curie

NO-3.3 TUE 11:30

Light Emission Mediated By A Lifted Conjugated Polymer —

•JINGCHENG LI¹, GUNNAR SCHULZE¹, LUZ M. BALLESTEROS², ANNA STROZECKA¹, KATHARINA J. FRANKE¹, and JOSE I. PASCUAL¹ — ¹Institut für Ex-

perimentalphysik, Freie Universität Berlin, Arnimallee 14, D-14195 Berlin, Germany — ²Departamento de Química Física, Facultad de Ciencias, Universidad de Zaragoza, 50009 Spain

NO-3.4 TUE 11:45

Propagating Surface Plasmon Emission from Au Nanostripes Excited by Tunneling Electrons —

•YANG ZHANG¹, ELIZABETH BOER-DUCHEMIN¹, TAO WANG¹, GENEVIÈVE COMTET¹, GÉRALD DUJARDIN¹, CHRISTIAN GRUBER², ANDREAS HOHENAU², PRIMOZ KUSAR², and JOACHIM KRENN² — ¹Institut des Sciences Moléculaires d'Orsay (ISMO), CNRS Université Paris-Sud, 91405 Orsay, France — ²Institute of Physics, Karl-Franzens University Graz, Universitätsplatz 5, 8010 Graz, Austria

Invited

NO-3.5 TUE 12:00

Nanoscale Optical Characterization of Semiconductors and Insulators through Scanning Cathodoluminescence Microscopy and Spectroscopy —

•FRANK D. OGLETREE, SHAUL ALONI, TEVYE KUYKENDALL, ALEX WEBER-BARGIONI, and VIRGINIA ALTOE — Molecular Foundry, LBNL, Berkeley, CA USA

NE-4: Molecular and bio-molecular systems

Chaired by T. Melin, Lille, FR

Time: Tuesday 10:45–12:15

Location: Pavillon 3

NE-4.1 TUE 10:45

Bio-Molecular Electronics: Materials and devices — ●SHACHAR RICHTER and ELAD MENTOVICH — Faculty of Exact Sciences, Tel-Aviv university, Tel Aviv Israel

NE-4.2 TUE 11:00

High-sensitive and label-free Indium Phosphide biosensor for early infection Diagnosis. — ●RICHARD JANISSEN¹, ALBERTO L.D. MOREAU¹, CLELTON A. SANTOS², LUIS PERONI³, DAGMAR R. STACH-MACHADO³, ANETE P. DE SOUZA², ALESSANDRA A. DE SOUZA⁴, and MONICA A. COTTA¹ — ¹State University of Campinas, Department of Applied Physics, Campinas, Brazil — ²State University of Campinas, Center of Molecular Miology and Genetic Engineering, Campinas, Brazil — ³State University of Campinas, Institute of Biology, Campinas, Brazil — ⁴Center APTA Citros Sylvio Moreira, Agronomic institute, Cordeiropolis, Brazil

NE-4.3 TUE 11:15

Local Electrical Characteristics of Diacetylene Thin Film Grains Studied by Dual-Probe Atomic Force Microscopy — ●MASAHARU HIROSE¹, KEI KOBAYASHI², KAZUMI MATSUSHIGE¹, and HIROFUMI YAMADA¹ — ¹Department of Electronic Science and Engineering, Kyoto University, Kyoto, Japan — ²Innovative Collaboration Center, Kyoto University, Kyoto, Japan

NE-4.4 TUE 11:30

Electronic Mapping of Molecular Properties by Distance Dependent Spectroscopy — ●SILVIA KARTHÄUSER, MARIA C. LENNARTZ, VASILE CACIUC, NICOLAE ATODIRESEI, and STEFAN BLÜGEL — Peter Grünberg Institut and Institute for Advanced Simulation, Forschungszentrum Jülich GmbH and JARA, D-52425 Jülich, Germany

NE-4.5 TUE 11:45

Electrostatic Force Microscopy and Conductivity Measurements of DNA and DNA Derivatives — ●ZEINAB ESMAIL NAZARI¹, JULIO GÓMEZ-HERRERO², and LEONID GUREVICH¹ — ¹Institute of Physics and Nanotechnology, Aalborg University, 9220 Aalborg, Denmark. — ²Dpt. Física de la Materia Condensada, Universidad Autónoma de Madrid, 28049-Madrid, Spain.

NE-4.6 TUE 12:00

A neuro-inspired memristive organic-nanoparticle synapse-transistor (synapstor) — ●DOMINIQUE VUILLAUME¹, FABIEN ALIBART¹, STÉPHANE PLEUTIN¹, DAVID GUÉRIN¹, OLIVIER BICHLER², and CHRISTIAN GAMRAT² — ¹IEMN-CNRS, Lille (France) — ²CEA-LIST, Saclay (France)

NM-2: Nanoparticles

Chaired by N.A. Burnham, Worcester, US

Time: Tuesday 10:45–12:15

Location: Pavillon 4

NM-2.1 TUE 10:45

Mechanical Properties of Supracrystals of Au Nanocrystals: Influence of Growth Mechanisms and Nanocrystallinity — ●CONG YAN, NICOLAS GOUBET, IMAD ARFAOUI, and MARIE-PAULE PILENI — Laboratoire des Matériaux Mésoscopiques et Nanométriques, Université Pierre et Marie Curie, C.N.R.S. UMR 7070, 4 Place Jussieu, 75005, Paris, France

NM-2.2 TUE 11:00

Polymer Viscoelasticity Measurements: A Comparison of AFM and Nanoindentation Techniques — ESTELLE KALFON-COHEN and ●SIDNEY R. COHEN — Department of Chemical Research Support, Weizmann Institute of Science, 76100, Rehovot, Israel

NM-2.3 TUE 11:15

Impact of Micro- and Nano-Reinforcement Particles on Deformation Behavior of MMCs — KHUSHBU DASH, SUJATA PANDA, and ●BANKIM CHANDRA RAY — Department of Metallurgical and Materials Engineering, National Institute of Technology, Rourkela, Odisha, India

NM-2.4 TUE 11:30

Ultra-High Torsional Stiffness of Boron Nitride Nanotubes — ●JONATHAN GAREL¹, ITAI LEVEN², RONIT POPOVITZ-BIRO¹, CHUNYI ZHI³, YOSHIO BANDO³, DMITRI GOLBERG³, ODED HOD², and ERNESTO JOSELEVICH¹ — ¹Weizmann Institute of Science, Rehovot, Israel — ²Tel Aviv University, Tel Aviv, Israel — ³National Institute for Materials Science (NIMS), Tsukuba, Japan

NM-2.5 TUE 11:45

Real-Time Nanomanipulation-Assisted Measurements of Frictional Properties of a Nanowire on a Flat Surface — ●LEONID DOROGIN¹, BORIS POLYAKOV^{1,2}, SERGEI VLASSOV¹, ANTS LÖHMUS¹, RÜNNO LÖHMUS¹, ILMAR KINK¹, and ALEXEI ROMANOV¹ — ¹Institute of Physics, University of Tartu, Estonia — ²Institute of Solid State Physics, University of Latvia, Latvia

NM-2.6 TUE 12:00

Study of nanoparticles shape's impact on the thermal behavior of nanocomposite samples — ●CLEMENCE GINGREAU, YOUNES EZZAHRI, and KARL

GT-2: Graphene: Characterization

Chaired by A. Taleb-Ibrahimi, Gif sur Yvette, FR

Time: Tuesday 10:45–12:15

Location: Amphi. Pasquier

GT-2.1 TUE 10:45

Indirect Excitons in Monolayer Graphene — MAHMOOD MAHMOODIAN^{1,2} and ●MATVEY ENTIN¹ — ¹Institute of Semiconductor Physics, Siberian Division, Russian Academy of Sciences, 630090, Novosibirsk, Russia — ²Novosibirsk State University, 630090, Novosibirsk, Russia

GT-2.2 TUE 11:00

Tip Enhanced Raman Spectroscopy of Graphene on Silicon/Silicon Oxide Substrates — ●HESHAM TAHA¹, RIMMA DEKHTER¹, YOSSI BAR-DAVID¹, GALINA FISH¹, and AARON LEWIS² — ¹Nanonics Imaging Ltd, Jerusalem, Israel — ²Hebrew University of Jerusalem, Jerusalem, Israel

GT-2.3 TUE 11:15

Raman spectroscopy of misoriented graphene flakes produced by plasma microjet deposition — ●VALERIA RUSSO¹, DAVID DELLASEGA^{1,2}, FEDERICA CAUSA³, FRANCESCO GHEZZI², DANIEL WOLVERSON⁴, CARLO E. BOTTANI¹, and MATTEO PASSONI^{1,2} — ¹Dipartimento di Energia, Politecnico di Milano, Via Ponzio 34/3, I-20133 Milano, Italy — ²Istituto di Fisica del Plasma, Consiglio Nazionale delle Ricerche, EURATOM-ENEA-CNR Association, Via R. Cozzi 53, I-20125 Milano, Italy — ³Dipartimento di Protezione Ambientale, Sanità Sociale ed Industriale, Università degli studi di Messina, I-98122 Messina, Italy — ⁴Department of Physics, University of Bath, Bath, BA2 7AY, UK

GT-2.4 TUE 11:30

Graphene and Other 2D Materials: Raman Scattering and Transport Measurements — ●MOHAMED BOUKHICHA, KARIM GACEM, MYKHAYLO ANTAL, MATTEO CALANDRA, and ABHAY SHUKLA — Université Pierre et Marie Curie-Paris 6, CNRS-UMR7590, Institut de Minéralogie et de Physique des Milieux Condensés, Paris, France

GT-2.5 TUE 11:45

Multiple plasmon excitations in epitaxial graphene — ●HERBERT PFNÜR, THOMAS LANGER, JENS BARRINGHAUS, and CHRISTOPH TEGENKAMP — Institut für Festkörperphysik, ATMOS, Leibniz Universität Hannover, Germany

GT-2.6 TUE 12:00

Structure and interface of graphene films grown on SiC using propane-hydrogen-argon CVD — ●ADRIEN MICHON¹, STÉPHANE VÉZIAN¹, DENIS LEFEBVRE¹, FABIEN CHEYNISS², FRÉDÉRIC LEROY², PIERRE MÜLLER², ANTOINE TIBERJ³, JEAN-ROCH HUNTZINGER³, LUDOVIC LARGEAU⁴, OLIVIA MAUGUIN⁴, MARCIN ZIELINSKI⁵, THIERRY CHASSAGNE⁵, and MARC PORTAIL¹ — ¹CRHEA-CNRS, Valbonne, France — ²CINaM-CNRS, Marseille, France — ³L2C-CNRS/Université Montpellier II, Montpellier, France — ⁴LPN-CNRS, Marcoussis, France — ⁵NOVASiC, Le Bourget du Lac, France

SN-3: Spin dependent transport through molecules I

Chaired by S. Blügel, Jülich, CH

Time: Tuesday 10:45–12:15

Location: Grand Amphi.

SN-3.1 TUE 10:45

Spin dependent transport in magnetic tunnel junctions based on Self-Assembled Monolayers — ●MARTA GALBIATI, SERGIO TATAY, CLÉMENT BARRAUD, RICHARD MATTANA, PIERRE SENEOR, KARIM BOUZEHOUE, CYRILE DERANLOT, ERIC JACQUET, ALBERT FERT, and FRÉDÉRIC PETROFF — Unité Mixte de Physique CNRS/THALES (UMR137) and Université de Paris-Sud, 91405 Orsay, France

SN-3.2 TUE 11:00

Quantum Tunneling of the Magnetization and Nuclear Spin Read-Out in a Single TbPc2 Molecule — ●MATIAS URDAMPILLETA¹, SVETLANA KLYATSKAYA², MARIO RUBEN^{2,3}, and WOLFGANG WERNSDORFER¹ — ¹Institut Néel, CNRS et Université Joseph Fourier, BP 166, F-38042 Grenoble Cedex 9, France — ²Institute of Nanotechnology (INT), Karlsruhe Institute of Technol-

ogy (KIT), 76344 Eggenstein-Leopoldshafen, Germany — ³Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), CNRS-Université de Strasbourg, 67034 Strasbourg, France

Invited

SN-3.3 TUE 11:15

Charge Transfer, Electron Correlation, and Spin Coupling at the Interface between Molecules and Metals — ●PIETRO GAMBARDELLA — Catalan Institute of Nanotechnology (ICN), E-08193 Barcelona, Spain — Departament de Física, Universitat Autònoma de Barcelona, E-08193 Barcelona, Spain — Institució Catalana de Recerca i Estudis Avançats (ICREA), E-08010 Barcelona, Spain

SN-3.4 TUE 11:45

Addressing the Quantum Magnetism of Individual Manganese-12-Acetate Molecular Magnets Anchored at Surfaces — STEFFEN KAHLE¹, ●MARKUS

TERNES¹, ZHITAO DENG¹, NIKOLA MALINOWSKI¹, CHARLÈNE TONNOIR¹, ALICIA FORMENT-ALIAGA¹, NICHIA THONTASEN¹, GORDON RINKE¹, DUY LE², VOLODYMYR TURKOWSKI², TALAT S. RAHMAN², STEPHAN RAUSCHENBACH¹, and KLAUS KERN^{1,3} — ¹Max Planck Institute for Solid State Research, Heisenbergstrasse 1, D-70569 Stuttgart, Germany — ²Department of Physics, University of Central Florida, Orlando, Florida 32816, United States — ³Institut de Physique de la Matière Con-

densée, École Polytechnique Fédérale de Lausanne, CH-1015 Lausanne, Switzerland

SN-3.5 TUE 12:00

Nanoscale spin-devices based on magnetic nanoparticles and molecules — ●GIUSEPPE MARUCCIO, SHILPI KARMAKAR, SUSMIT KUMAR, CHAITANYA LEKSHMI INDIRA, and ROSS RINALDI — CNR-Institute of nanoScience, Physics Dep., Università del Salento

SA-2: Molecular self-assembly : From dimers to wires

Chaired by L. Masson, Marseille, FR

Time: Tuesday 10:45–12:15

Location: Salle du Conseil

SA-2.1 TUE 10:45

Semi-empirical versus ab-initio non-local correlation effects in the case of Thiophene adsorbed on Cu(111) — ●MARTIN CALLEN, NICOLAE ATODIRESEI, VASILE CACIUC, and STEFAN BLÜGEL — Peter Grünberg Institut (PGI-1) and Institute for Advanced Simulation (IAS-1), Forschungszentrum Jülich and JARA, 52425 Jülich, Germany)

SA-2.2 TUE 11:00

Surface-Induced Dimerization of Pentacene Molecules on Cu(110)-c(6×2)O and Cu(110)-(2×1)O — ●JOHANNES GALL, MARIELLA DENK, GÜNTHER WEIDLINGER, LIDONG SUN, MICHAEL HOHAGE, and PETER ZEPPENFELD — Institute of experimental physics, Johannes Kepler University Linz, Austria

SA-2.3 TUE 11:15

Supramolecular wires based on oligothiophene molecules deposited on graphene — ●ROOZBEH SHOKRI^{1,2}, FRANCOIS VONAU¹, MARION CRANNEY¹, DOMINIQUE AUBEL¹, GÜNTER REITER², LAURENT SIMON¹, MARIE-AGNÈS LACOUR³, THIBAUT JARROSSON³, FRANCOISE SEREIN-SPIRAU³, JEAN-PIERRE LÈRE-PORTE³, JOËL MOREAU³, KARINNE MIQUEU⁴, and JEAN-MARC SOTIROPOULOS⁴ — ¹Institut de science des matériaux de Mulhouse IS2M-LRC7228-CNRS, 4 rue des frères Lumières 68093 Mulhouse Cedex, France — ²Physikalisches Institut, Universität Freiburg, Hermann-Herder-Strasse 3, 79104 Freiburg, Germany — ³Institut Charles Gerhardt de Montpellier, UMR CNRS 5253, Architectures Moléculaires et Matériaux Nanostructurés; Ecole Nationale Supérieure de Chimie de Montpellier, 8, rue de l'École Normale, 34296 Montpellier Cedex 05, France — ⁴Institut Pluridisciplinaire

de Recherche sur l'Environnement et les Matériaux, UMR CNRS 5254, Equipe Chimie-Physique, Hélioparc - 2 av. Président ANGOT, 64053 PAU Cedex 9, France

SA-2.4 TUE 11:30

Controlled formation of 1D and 2D supramolecular structures on Ag(111) through H-bond recognition — ●MEIKE STÖHR¹, MIHAELA ENACHE¹, MANFRED MATENA², ANNA LLANES-PALLAS³, LAURA MAGGINI³, DAVIDE BONIFAZI³, and THOMAS A. JUNG⁴ — ¹Zernike Institute for Advanced Materials, University of Groningen, Netherlands — ²Department of Physics, University of Basel, Switzerland — ³Department of Chemistry, University of Namur, Belgium — ⁴Paul-Scherrer-Institute, Villigen, Switzerland

SA-2.5 TUE 11:45

STM And FTIR Spectroscopy For Sub-Monolayer Monitoring Of The Adsorption Of Benzene Derivatives On Si(100) In UHV — ●OLIVIER PLUCHERY, YMÈNE HOUARI, and FABIO FINOCCHI — Institut des NanoSciences de Paris, 4 place Jussieu, 75005 Paris, FRANCE

SA-2.6 TUE 12:00

Surface-supported heterotriangulene polymers — ●FRÉDÉRIC ROSSEL¹, MARCO BIERI¹, MILAN KIVALA², FLORIAN SCHLUETTER², XINLIANG FENG², KLAUS MÜLLEN², PASCAL RUFFIEUX¹, and ROMAN FASEL¹ — ¹Empa, Swiss Federal Laboratories for Materials Science and Technology, nanotech@surfaces Laboratory, Ueberlandstrasse 129, CH-8600 Dübendorf, Switzerland — ²Max Planck Institute for Polymer Research, Ackermannweg 10, D-55128 Mainz, Germany

SO-4: Liquids, molecules, impact on surfaces

Chaired by F. Maroun, Palaiseau, FR

Time: Tuesday 14:00–16:00

Location: Amphi. Portier

SO-4.1 TUE 14:00

A combined scanning tunneling microscopy and theoretical study on conjugated polyphenylene oligomers — ●SHIYONG WANG¹, WEIHUA WANG¹, NIAN

LIN¹, XINGQIANG SHI², and MICHEL A. VAN HOVE² — ¹Department of Physics, The Hong Kong University of Science and Technology, Hong Kong, China — ²Department of Physics and Materials Science, City University of Hong

Kong, Hong Kong, China

SO-4.2 TUE 14:15

Tip-induced isomerization of diarylethene molecules self assembled on Au(111) — ●SERGIY SNEGIR^{6,1}, ALEXANDR MARCHENKO², PEI YU³, FRANCOIS MAUREL⁴, OLEKSIY KAPITANCHUK⁵, and EMMANUELLE LACAZE⁶ — ¹Chuiko Institute of surface chemistry, National Academy of Sciences of Ukraine, Kyiv, Ukraine — ²Institute of Physics, National Academy of Sciences of Ukraine, Kyiv, Ukraine — ³Institut de Chimie Moléculaire et des Matériaux d'Orsay, UMR 8182, Université Paris Sud 11, 91405 Orsay, France — ⁴University Paris Diderot, Sorbonne Paris Cité, ITODYS, UMR CNRS 7086, 15 rue J-A de Baïf, 75205 Paris Cedex 13, France — ⁵Bogolyubov Institute for Theoretical Physics, National Academy of Sciences of Ukraine, Kyiv, Ukraine — ⁶Institut des Nano-sciences de Paris (INSP), CNRS/Université Pierre et Marie Curie, Paris, France

SO-4.3 TUE 14:30

Hierarchical On-Surface Polymerization Studied With STM — ●LEIF LAFFERENTZ¹, VOLKER EBERHARDT², CARLO DRI³, CHRISTINA AFRICH³, GIOVANNI COMELLI³, FRIEDRICH ESCH³, STEFAN HECHT², and LEONHARD GRILL¹ — ¹Fritz-Haber-Institut der MPG, Berlin, Germany — ²Humboldt-Universität, Berlin, Germany — ³IOM-CNR Laboratorio TASC, Trieste, Italy

SO-4.4 TUE 14:45

Probe Diffusion Dynamics and Liquid Structure of Organic Liquids on Thermal SiOx — ●DANIELA TÄUBER, INES TRENKMANN, and CHRISTIAN VON BORCZYKOWSKI — nanoMA and Institut für Physik, Technische Universität Chemnitz, Chemnitz, Germany

SO-4.5 TUE 15:00

Study of nanostructure formation and power law of sputtered species of Ag thin film under swift high ion induced thermal spike — ●UDAI BHAN SINGH¹, DINESH CHANDRA AGARWAL¹, SAIF AHMAD KHAN¹, AMBUJ TRIPATHI¹, SATYABRATA MOHAPATRA², and DEVESH KUMAR AVASTHI¹ — ¹Inter-University Accelerator Centre, Aruna Asaf Ali Marg, New Delhi, India — ²Guru Gobind Singh Indraprastha University, Dwarka, New Delhi, India

SO-4.6 TUE 15:15

Low-energy nanoparticle impact — WOLFGANG ROSELLEN, HENDRIK BETTERMANN, TORSTEN VELTUM, and ●MATHIAS GETZLAFF — University of Düsseldorf, Institute of Applied Physics, D-40225 Düsseldorf, Germany

SO-4.7 TUE 15:30

Pulsed Laser Deposition and In Situ Scanning Tunneling Microscopy of Pd Clusters on Au(111): Deposition Regimes and Growth Mechanisms — ●CARLO S. CASARI^{1,2}, STEFANO FOGGIO¹, ANDREA LI BASSI^{1,2}, FABRIZIO SIVIERO¹, GUIDO FRATESI³, MATTEO PASSONI¹, and CARLO E. BOTTANI^{1,2} — ¹Dipartimento di Energia and NEMAS - Center for NanoEngineered Materials and Surfaces, Politecnico di Milano, via Ponzio 34/3, I-20133 Milano, Italy — ²CNST - Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Via Pascoli 70/3 I-20133 Milano, Italy — ³Dipartimento di Scienza dei Materiali, Università di Milano-Bicocca, Via Cozzi 53, I-20125 Milano, Italy

SO-4.8 TUE 15:45

Quantitative analysis of dielectric surfaces nanopatterned by uniform ion-beam sputtering — ●ELLIOT VANDENHECKE, DAVID BABONNEAU, SOPHIE CAMELIO, and PHILIPPE GUERIN — Institut Pprime, Poitiers, France

NE-5: Atomic and molecular magnetism

Chaired by P. Gambardella, Barcelona, ES

Time: Tuesday 14:00–16:15

Location: Amphi. Richet

NE-5.1 TUE 14:00

Reversible Switching of Spin Crossover Molecules in a Bilayer — ●THIRUVANCHERIL GOPAKUMAR¹, FRANCESCA MATINO¹, HOLGER NAGGERT², ALEXANDER BANNWARTH², FELIX TUCZEK², and RICHARD BERNDT¹ — ¹Institut für Experimentelle und Angewandte Physik, Christian-Albrechts-Universität zu Kiel, D-24098 Kiel, Germany — ²Institut für Anorganische Chemie, Christian-Albrechts-Universität zu Kiel, D-24098 Kiel, Germany

NE-5.2 TUE 14:15

Spin-Thermoelectric Effects in Double Quantum Dot Systems — ●PIOTR TROCHA¹, ŁUKASZ KARWACKI¹, and JÓZEF BARNAŚ^{1,2} — ¹Faculty of Physics, Adam Mickiewicz University, 61-614 Poznan, Poland — ²Institute of Molecular Physics, Polish Academy of Sciences, 60-179 Poznan, Poland

NE-5.3 TUE 14:30

Spin resolved measurements of single molecular magnets on surfaces — JÖRG SCHWÖBEL¹, ●JENS BREDE¹, RÉGIS DECKER¹, ANDREW DILULLO², GERMAR HOFFMANN¹, SVETLANA KLYATSKAYA³, MARIO RUBEN^{3,4}, and ROLAND WIESENDANGER¹ — ¹Institute of Applied Physics, University of Hamburg, 20355 Hamburg, Germany — ²Department of Physics and Astronomy, Ohio University, Athens, Ohio 45701, USA — ³Institute of Nanotechnology, Karlsruhe Institute of Technology, 76344 Eggenstein Leopoldshafen, Germany — ⁴IPCMS, Université de Strasbourg, 67034 Strasbourg, France

NE-5.4 TUE 14:45

Scanning Tunneling Microscopy and Spectroscopy Study of Single Molecule Magnets — ●UNGDON HAM¹, YOUNGTEK OH², HONGWOO BAEK¹, SEONG JOON LIM¹, BEOMYONG HWANG¹, SHARIFUL ISLAM MAMUN³, GAJENDRA GUPTA³, JINKWON KIM³, and YOUNG KUK¹ — ¹Department of Physics and Astronomy, Seoul National

University, Seoul 151-747, South Korea — ²Samsung Advanced Institute of Technology, 449-712, South Korea — ³Department of Chemistry, Kongju National University, Chungnam 314-701, South Korea

NE-5.5 TUE 15:00

Electronic and Magnetic Properties of Co Adatoms on the Bi₂Se₃ Surface — •THOMAS EELBO¹, MARCIN SIKORA², MARTA WASNIEWSKA¹, MICHAL DOBRZANSKI², ANDRZEJ KOZLOWSKI², MIKE GYAMFI¹, GUSTAV BIHLMAYER³, IREK MIOTKOWSKI⁴, and ROLAND WIESENDANGER¹ — ¹Institute of Applied Physics, University of Hamburg, 20355 Hamburg, Germany — ²Department of Solid State Physics, AGH University of Science and Technology, Al. Mickiewicza 30, Krakow, Poland — ³Institute of Solid State Research, Forschungszentrum Jülich, 52425 Jülich, Germany — ⁴Department of Physics, Purdue University, West Lafayette, USA

NE-5.6 TUE 15:15

Ab initio studies of energy and impurity dependent electron focusing effect — •MOHAMMED BOUHASSOUNE, PETER H. DEDERICHS, STEFAN BLÜGEL, and SAMIR LOUNIS — Peter Grünberg Institut and Institute for Advanced Simulation, Forschungszentrum Jülich and JARA, D-52425 Jülich, Germany

NE-5.7 TUE 15:30

First-principles investigation of magnetic excitations probed by scanning tunneling spectroscopy — •BENEDIKT SCHWEFLINGHAUS¹, MANUEL DOS SANTOS DIAS¹, ANTONIO T. COSTA², STEFAN BLÜGEL¹, DOUG L. MILLS³, and SAMIR LOUNIS¹ — ¹Peter Grünberg Institut and Institute for Advanced Simulation, Forschungszentrum Jülich and JARA, D-52425 Jülich, Germany — ²Instituto de Física, Universidade Federal Fluminense, 24210-340 Niteroi, Rio de Janeiro, Brazil — ³Department of Physics and Astronomy, University of California Irvine, California, 92697 USA

NE-5.8 TUE 15:45

Giant Rashba spin splitting found on Pt-induced nanowire — •JEWOOK PARK, SUNG WON JUNG, MINCHERL JUNG, and HAN WOONG YEOM — Department of Physics, Center for Atomic wires and Layers, Pohang University of Science and Technology, Pohang 790-784, Korea

NE-5.9 TUE 16:00

Adsorption of magnetic and non-magnetic atoms on surfaces with strong spin-orbit coupling — •DANIEL LÜKERMANN¹, SERGII SOLOGUB², HERBERT PFNÜR¹, and CHRISTOPH TEGENKAMP¹ — ¹University of Hannover, Institute for solid state physics, Appelstraße 2, 30167 Hannover, Germany — ²Institute of Physics, National Ac. of Sc. Ukraine, Nauky Av. 46, 03028 Kyiv, Ukraine

NO-4: Optical nano-antennas - surface plasmons

Chaired by V. Sandoghdar, Erlangen, DE

Time: Tuesday 14:00–16:15

Location: Pavillon 1

Invited NO-4.1 TUE 14:00
Scanning antenna probes for light control on the nanoscale — LARS NEUMANN¹ and •NIEK F. VAN HULST^{1,2} — ¹ICFO - the Institute of Photonic Sciences, Mediterranean Technology Park, 08860 Castelldefels (Barcelona), Spain — ²ICREA - Institutio Catalana de Recerca i Estudis Avancats, 08015 Barcelona, Spain

NO-4.2 TUE 14:30

Towards the holy grail of near field optics via reproducibly fabricated optical nano antennae on Scanning Probe Tips — MAURO MELLI¹, WEI BAO¹, FRANCESCA INTONTI², FRANCESCO RIBOLI², DIEDERIK WIERSMA², FRANK OGLETREE¹, JIM SCHUCK¹, STEFANO CABRINI¹, and •ALEXANDER WEBER-BARGIONI¹ — ¹Molecular Foundry, Lawrence Berkeley National Laboratory, Berkeley, Ca, 94720 USA — ²European Laboratory for Non-Linear Spectroscopy, 50019 Sesto-Fiorentino (Firenze), Italy

NO-4.3 TUE 14:45

Plasmon Coupling in Silver Nanocubes Dimers: Resonance Splitting Induced by Edge Rounding — •EMMANUEL COTTANCIN, NADIA GRILLET, DELPHINE MANCHON, CHRISTOPHE BONNET, MICHEL BROYER, JEAN LERMÉ, MATTHIAS HILLENKAMP, and MICHEL PELLARIN — Université de Lyon, Université Lyon 1, CNRS,

Laboratoire de Spectrométrie Ionique et Moléculaire, (LASIM) UMR 5579, Bât A. Kastler, 43, bd du 11 Novembre 1918, 69622 Villeurbanne cedex, France

NO-4.4 TUE 15:00

Photochemical manipulation of IR-resonant gold nanoantennas: Spectral analysis of the occurring plasmonic modes — •JULIA KATZMANN¹, FRANK NEUBRECH², DANIEL WEBER², CHRISTIAN HUCK², ANDREA PUCCI², and THOMAS HAERTLING¹ — ¹Fraunhofer Institute for Non-Destructive Testing, Maria-Reiche-Str. 2, 01109 Dresden, Germany — ²Kirchhoff Institute for Physics, University of Heidelberg, Im Neuenheimer Feld 227, 69120 Heidelberg, Germany

NO-4.5 TUE 15:15

Correlated structure-scattering study of single Ag triangular nanoprisms — •ANNE-ISABELLE HENRY, MARTIN G. BLABER, JULIA M. BINGHAM, GEORGE C. SCHATZ, and RICHARD P. VAN DUYNE — Northwestern University, Evanston, IL, USA

NO-4.6 TUE 15:30

Collection-mode SNOM for Plasmonics — FRANCESCO TANTUSSI¹, FRANCESCO FUSO^{1,2}, and •MARIA ALLEGRINI^{1,2} — ¹Department of Physics and CNISM, Pisa University, 56127 Pisa, Italy — ²INO-CNR,

56127 Pisa, Italy

NO-4.7 TUE 15:45

Near-field optical study of the generation and launching of surface-plasmons polaritons at Telecom frequencies — ●LÉO GREUSARD¹, RAKCHANOK RUNGSAWANG¹, YANNICK DE WILDE¹, ADEL BOUSSEKSOU², DANIELE COSTANTINI², RAFFAELE COLOMBELLI², JEAN DECOBERT³, JEAN-LOUIS GENTNER³, ALAIN ACCARD³, and GUANG HUA DUAN³ — ¹Institut Langevin, ESPCI ParisTech, C.N.R.S., 10 rue Vauquelin, 75231 Paris Cedex 05, France — ²Institut d'Electronique Fondamentale, Université Paris Sud and

CNRS, UMR8622, 91405 Orsay, France — ³3-5 Lab, Joint lab of 'Alcatel-Lucent Bell Labs France 'Thales Research and Technology' and 'CEA Leti', Route de Nozay, 91461 Marcoussis cedex, France

NO-4.8 TUE 16:00

Local, low energy, electrical excitation of surface plasmons — ●ELIZABETH BOER-DUCHEMIN, TAO WANG, BENOÎT ROGEZ, YANG ZHANG, ERIC LE MOAL, GENEVIÈVE COMTET, and GÉRALD DUJARDIN — Institut des Sciences Moléculaires d'Orsay (ISMO), Université Paris-Sud, Orsay, France

NB-2: Bionanotechnology -biomimetic systems

Chaired by D. Muller, Basel, CH

Time: Tuesday 14:00–16:15

Location: Pavillon 3

NB-2.1 TUE 14:00

Interactions between biomolecules driven by femtosecond UV laser pulses — ●CARLO ALTUCCI¹, RAFFAELE VELOTTA¹, ROSARIO ESPOSITO¹, MARCO MICCIARELLI¹, LUCIA ALTUCCI², ANGELA NEBBIOSO², VINCENZO CARAFA², MARIA ROSARIA CONTE², ROSARIA BENEDETTI¹, LEILA BIROLO³, and GENNARO MARINO³ — ¹Department of Physics, Università "Federico II" di Napoli, Naples, Italy — ²Dept of General Pathology, Seconda Università di Napoli, Italy — ³Dept of Chemistry, Università "Federico II" di Napoli, Italy

NB-2.2 TUE 14:15

Electrostatic Assembly of a DNA Superparamagnetic Nanotool for Simultaneous Intracellular Delivery and In-Situ Monitoring — GEINGUENAUD FRÉDÉRIC¹, SOUISSI INÈS², FAGARD REMI^{2,3}, ●MOTTE LAURENCE¹, and LALATONNE YOANN^{1,4} — ¹Laboratoire CSPBAT, UMR 7244 CNRS, Université Paris 13, 93017 Bobigny, France — ²INSERM Unité 978, Université Paris 13, 93017 Bobigny, France — ³Service de Biochimie, APHP, Hôpital Avicenne, 93009 Bobigny, France — ⁴Service de Médecine Nucléaire, APHP, Hôpital Avicenne, 93009 Bobigny, France

NB-2.3 TUE 14:30

Gold nanoparticles by soft UVNIL technology for ultrasensitive biochemical sensing based on surface enhanced spectroscopy (SERS) — ●NATHALIE LIDGI-GUIGUI¹, MAXIMILIEN COTTAT¹, FRÉDÉRIC HAMOUDA², PHILIPPE GOGOL², JEAN-MICHEL LOURTIOZ², BERNARD BARTENLIAN², and MARC LAMY DE LA CHAPELLE¹ — ¹CSPBAT CNRS UMR7244, Univ. Paris13, 74 rue Marcel Cachin, 93017 Bobigny, France — ²IEF CNRS UMR8622, Univ. Paris-Sud, Orsay cedex, 91405, France

NB-2.4 TUE 14:45

Silver coated Biologically Active Protein Hybrids:

Biomedical applications — ●AMIHAY FREEMAN, GIL MOR, HILA MOSCOVICH-DAGAN, CARMIT OPHIR-PORAT, HADAR BEN YOAV, and YOSSI SHACHAM-DIAMAND — Tel Aviv University, Tel Aviv 69978, Israel

NB-2.5 TUE 15:00

FIB direct fabrication of synthetic nanopores - The route towards democratization — ●JACQUES GIERAK¹, ERIC BOURHIS¹, ALI MADOURI¹, XAVIER LAFOSSE¹, GILLES PATRIARCHE¹, RALF JEDE², LARS BRUCHHAUS², LOIC AUVRAY³, and YANN ASTIER⁴ — ¹LPN-CNRS, Route de Nozay, 91460 Marcoussis, France — ²RAITH GmbH - Konrad-Adenauer-Allee 8, 44263 Dortmund, Germany — ³Matière et Systèmes Complexes, UMR 7057, Paris Diderot University, France — ⁴Instituto de Tecnologia Quimica e Biologica Universidade Nova de Lisboa, Av. da Republica, EAN, 2784-505 Oeiras, Portugal

NB-2.6 TUE 15:15

Tip-based nanolithography applied to bio-inspired materials, biosensors and cell biology — ●ROBERT STOKES — Nanoink, Skokie, IL, USA

NB-2.7 TUE 15:30

Bio-Synthetic Deconstruction of the Nuclear Pore Complex — ●RODERICK Y.H. LIM — Biozentrum and the Swiss Nanoscience Institute, University of Basel, Switzerland

NB-2.8 TUE 16:00

Easy-to-Use Sensitive Tracking of Magnetic Nanoparticles by Mean of their Magnetic Signatures — CAROLINE DE MONTFERRAND^{1,2}, LAURENCE MOTTE¹, and ●LUC LENGLET² — ¹CSPBAT Laboratory, UMR 7244 CNRS, University of Paris 13, Bobigny, France — ²Magnisense, 140 rue du faubourg Saint Honoré, Paris, France

SP-2: Novel and emerging SPM characterizations

Chaired by Y. Fleming, Belvaux, LU

Time: Tuesday 14:00–16:15

Location: Pavillon 4

SP-2.1 TUE 14:00

***In situ* viscosity measurements using micromechanical resonators** — ●BENJAMIN A. BIRCHER¹, KASPER RENGGLI², HANS PETER LANG³, CHRISTOPH GERBER³, HENNING STAHLBERG¹, and THOMAS BRAUN¹ — ¹Center for Cellular Imaging and Nano Analytics, Biozentrum, University of Basel, Switzerland — ²Department of Chemistry, University of Basel, Switzerland — ³Swiss Nanoscience Institute, University of Basel, Switzerland

SP-2.2 TUE 14:15

Atom Probe Tomography and Nanoscience — ●DIDIER BLAVETTE, RODRIGUE LARDÉ, ISABELLE MOUTON, SEBASTIEN DUGUAY, and THOMAS PHILIPPE — Groupe de Physique des Matériaux (GPM) - UMR CNRS 6634

SP-2.3 TUE 14:30

Controlled-3D Growth of Si Nanostructures via Scanning Probe Lithography — ●KUAN ENG JOHNSON GOH¹, HAI XU², SHI CHEN², and JOHN N RANDALL³ — ¹Institute of Materials Research and Engineering (IMRE), Agency for Science, Technology and Research (ASTAR), 3 Research Link, Singapore 117602, Singapore — ²Zyvex Asia Pte Ltd, 4 Battery Road, #25-01 Bank of China Building, Singapore 049908, Singapore — ³Zyvex Labs LLC, Richardson, Texas 75081, USA

SP-2.4 TUE 14:45

Quantitative Nanoscale Dielectric Microscopy on Metallic and Insulating Substrates — ●LAURA FUMAGALLI^{1,2}, GEORG GRAMSE¹, DANIEL ESTEBAN-FERRER¹, AURORA DOLS-PÉREZ¹, and GABRIEL GOMILA^{1,2} — ¹Institute for BioEngineering of Catalonia (IBEC), Barcelona, Spain — ²University of Barcelona, Barcelona, Spain

SP-2.5 TUE 15:00

Calibrated Nanoscale Capacitance and Dopant Profile Measurements using a Novel Scanning Microwave Microscope — ●GERALD KADA¹, MATTHIAS FENNER¹, HANS-PETER HUBER², JURGEN SMOLINER³, PETER HINTERDORFER², and FERRY KIENBERGER¹ — ¹Agilent Technologies Austria, Linz, Austria — ²JKU University of Linz, Linz, Austria — ³Technical University Vienna, Vienna, Austria

SP-2.6 TUE 15:15

Dare a closer look to nanotechnology: surface analysis with ultimate lateral resolution — ●ANDREAS THISSEN — SPECS Surface Nano Analysis GmbH, Voltastr. 5, 13355 Berlin, Germany

SP-2.7 TUE 15:30

Shape-Independent Lateral Force Calibration — ●NANCY A BURNHAM and EVAN V ANDERSON — Physics Department, Worcester Polytechnic Institute, Worcester MA 01609 USA

SP-2.8 TUE 15:45

Spatial mapping of surface plasmons in nanoscale Ag islands on graphite using SPELS — ●KARL BAUER, SHANE MURPHY, LIN TANG, and RICHARD E PALMER — Nanoscale Physics Research Laboratory, School of Physics and Astronomy, University of Birmingham, Birmingham B15 2TT, UK

SP-2.9 TUE 16:00

Conductive carbon nanoprobe fabricated by focused ion beam assisted chemical vapor deposition — ●MASAO NAGASE, YUKI NISHI, TERUKI ISAWA, and TAKUTO TAO — The University of Tokushima, Tokushima, Japan

GT-3: Properties of nanotube based materials

Chaired by A. Loiseau, Chatillon, FR

Time: Tuesday 14:00–16:15

Location: Amphi. Pasquier

GT-3.1 TUE 14:00

Extraordinarily long-ranged structural relaxation of defects in single-wall carbon nanotubes — ●MICHAEL RC HUNT and STEWART J CLARK — Centre for Materials Physics, Department of Physics, Durham University, Durham, UK

GT-3.2 TUE 14:15

Melting of Liquids Confined in Nano-carbons; Novel Ice Structures, Pressure enhancement in pores — MALGORZATA SLIWINSKA-BARTKOWIAK¹, MONIKA JAZDZEWSKA¹, YUN LONG², and ●KEITH E. GUBBINS² — ¹A. Mickiewicz University, Faculty of Physics, Poznan,

Poland — ²Department of Chemical and Biochemical Engen., North Carolina State University, Raleigh, NC, USA

GT-3.3 TUE 14:30

Development of Novel Graphene and Carbon Nanotubes Based Multifunctional Polymer Matrix Composites — SIU LEUNG, MUHAMMAD KHAN, and ●HANI NAGUIB — University of Toronto, 5 King's College Rd., Toronto, Ontario M5S 3G8 Canada

GT-3.4 TUE 14:45

Selective Actuation of Arrays of Carbon Nanotubes Using Magnetic Resonance — ●ALEXANDER

VOLODIN¹, CLAUDIA SANTINI^{1,2}, PHILIPPE VEREECKEN², STEFAN DE GENDT², and CHRIS VAN HAESSENDONCK¹ — ¹Katholieke Universiteit Leuven, Belgium — ²Interuniversity Microelectronic Centre (IMEC), Leuven, Belgium

GT-3.5 TUE 15:00

Dynamics of metals confined nanospace inside carbon nanotubes — •YASUHIKO HAYASHI¹, TOMOHARU TOKUNAGA², TORU IJIMA¹, KATSUHIRO SASAKI², MASAKI TANEMURA¹, KOTARO KURODA², and TAKAHISA YAMAMOTO² — ¹Department of Frontier Materials, Nagoya Institute of Technology, Gokiso-cho, Showa-ku, Nagoya, 466-8555, JAPAN — ²Department of Quantum Engineering, Nagoya University, Furo-cho Chikusa-ku, Nagoya, 464-8601, JAPAN

GT-3.6 TUE 15:15

Hybridization in parallel Carbon Nanotube Quantum Dots — •CAROLA MEYER¹, KARIN GOSS¹, NICULINA PEICA², SEBASTIAN SMERAT³, MARTIN LEIJNSE⁴, MAARTEN R. WEGEWIJS⁵, CHRISTIAN THOMSEN², JANINA MAULTZSCH², and CLAUS M. SCHNEIDER¹ — ¹Peter Grünberg Institute, Reseach Centre Jülich and JARA Fundamentals of Future Information Technologies, Jülich, Germany — ²Institut für Festkörperphysik, Technische Universität Berlin, Berlin, Germany — ³Physics Department, Arnold Sommerfeld Center for Theoretical Physics, Ludwig-Maximilians-Universität München, München, Germany — ⁴Niels Bohr Institute and Nano-Science Center, University of Copenhagen, Copenhagen, Denmark — ⁵Institute for Theory of Statistical Physics, RWTH Aachen, Aachen, Ger-

many

GT-3.7 TUE 15:30

Investigation of electron transport across vertically grown CNTs using combination of Proximity Field Emission Microscopy (PFEM) and Scanning Probe Image Processing (SPIP) techniques — •SADHU KOLEKAR¹, SHASHIKANT PATOLE², JI-BEOM YOO², and CHANDRAKANT DHARMADHIKARI¹ — ¹Center for Advanced Studies in Materials Science and Solid State Physics, Department of Physics, University of Pune, Pune 411007, India — ²SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University, Suwon, 440-746 (Korea)

GT-3.8 TUE 15:45

Spectrum and Franck-Condon factors of interacting suspended SWCNTs — •ANDREA DONARINI, ABDULLAH YAR, and MILENA GRIFONI — Institute of Theoretical Physics, University of Regensburg, 93040 Regensburg, Germany

GT-3.9 TUE 16:00

Modelling the Encapsulation of Alkali Iodides in Single-Walled Carbon Nanotubes — •ERIC FAULQUES¹ and ELENA BICHOUTSKAIA² — ¹Institut des Matériaux Jean Rouxel (IMN), Université de Nantes, CNRS, 2 rue de la Houssinière, BP 32229, 44322 Nantes cedex 3, France — ²School of Chemistry, The Computational Nanoscience Group, University of Nottingham, University Park, Nottingham NG7 2RD, United Kingdom

SN-4: Spin dependent inelastic tunneling spectroscopy

Chaired by A. Heinrich, San Jose, US

Time: Tuesday 14:00–16:00

Location: Grand Amphi.

SN-4.1 TUE 14:00

Lifetimes of magnetic excitations in supported ferromagnetic and anti-ferromagnetic spin-1/2 Heisenberg chains — •JEAN-PIERRE GAUYACQ¹ and NICOLÁS LORENTE² — ¹Institut des Sciences Moléculaires d'Orsay, ISMO, UMR8214, Bât. 351, Université Paris-Sud, 91405 Orsay Cedex, France — ²Centre d'Investigació en Nanociència i Nanotecnologia (CSIC-ICN), Campus de la UAB, E-08193 Bellaterra, Spain

SN-4.2 TUE 14:15

Detecting spin-states of single metal-organic complexes on a superconductor — •BENJAMIN W. HEINRICH, LUKAS Z. BRAUN, GUNNAR SCHULZE, JOSÉ I. PASCUAL, and KATHARINA J. FRANKE — Institut für Experimentalphysik, Freie Universität Berlin, Germany

SN-4.3 TUE 14:30

Kondo effects in inelastic spin transitions — RICHARD KORYTÁR¹, JEAN-PIERRE GAUYACQ², and •NICOLÁS LORENTE³ — ¹Institut für Nanotechnologie, Karlsruher Institut für Technologie, Hermann-von-Helmholtzplatz 1, D-76344 Eggenstein-Leopoldshafen, Germany, — ²Institut

des Sciences Moléculaires d'Orsay, ISMO, Unité mixte de recherches CNRS-Université Paris-Sud, UMR 8214, Bâtiment 351, Université Paris-Sud, 91405 Orsay Cedex, France — ³Centre d'Investigació en Nanociència i Nanotecnologia (CSIC-ICN), Campus de la UAB, E-08193 Bellaterra, Spain

SN-4.4 TUE 14:45

Inelastic spin excitations in STM from first principles calculations — •MAGNUS PAULSSON¹, CARLO CANALI¹, IVAN RUNGGER², STAFANO SANVITO², and MATS PERSSON^{3,4} — ¹DFM, Linnaeus University, 39182 Kalmar, Sweden — ²Department of Physics, Trinity College Dublin, Ireland — ³SSRC, The University of Liverpool, Liverpool L69 3BX, UK — ⁴of Applied Physics, Chalmers University of Technology, 412 96 Göteborg, Sweden

SN-4.5 TUE 15:00

On the theory of magnetic excitations probed with STM — •SAMIR LOUNIS¹, ANTONIO T. COSTA², and DOUG L. MILLS³ — ¹Peter Grünberg Institut and Institut für Advanced Simulation, Forschungszentrum Jülich and JARA, D-52425 Jülich, Germany — ²Instituto d Fisica,

Universidade Federal Fluminense, 24210-340 Niteroi, Rio de Janeiro, Brazil — ³Department of Physics and Astronomy, University of California Irvine, California, 92697 USA

SN-4.6 TUE 15:15

Spin parity effects in single-spin inelastic electron tunneling spectroscopy — ●JOAQUÍN FERNÁNDEZ-ROSSIER and FERNANDO DELGADO — Intertational Iberian Nanotechnology Laboratory (INL), Av. Mestre José Vega, 4715-330 Braga, Portugal

SN-4.7 TUE 15:30

Probing magnetization dynamics of single atom systems with SP-STM — ●ALEXANDER AKO KHAJETOORIAN, JENS WIEBE, TOBIAS SCHLENK, BRUNO CHILIAN, STEFAN KRAUSE, and ROLAND WIESENDANGER — Institute of Applied Physics, Hamburg University, Hamburg, Germany

SN-4.8 TUE 15:45

Kondo Induced Spin Polarization in a Parallel Double Quantum Dot System with Rashba Interaction — ●PIOTR STEFAŃSKI — Institute of Molecular Physics of the Polish Academy of Sciences, Poznań Poland

SC-3: Semiconductor III-V nanowires

Chaired by C. Teichert, Leoben, AT

Time: Tuesday 14:00–16:00

Location: Salle du Conseil

SC-3.1 TUE 14:00

Photoinduced Current Measurements on InAs Wires by Dual Light Illumination Method in STM — SHUICHI KATSUI^{1,3} and ●TAKUJI TAKAHASHI^{1,2} — ¹Institute of Industrial Science, The University of Tokyo, Tokyo, Japan — ²Institute for Nano Quantum Information Electronics, The University of Tokyo, Tokyo, Japan — ³Research Fellow of the Japan Society for the Promotion of Science

SC-3.2 TUE 14:15

Electrical Characterization of III-V Semiconductor Nanowires and Nanowire Devices with Scanning Tunneling Microscopy — ●OLOF PERSSON, JALIL SHAH, DMITRY SUYATIN, JESPER WALLENTIN, LARS SAMUELSON, ANDERS MIKKELSEN, and RAINER TIMM — University of Lund, Lund, Sweden

SC-3.3 TUE 14:30

Optical Response of Colorful InAs Nanowire Arrays — ●NICKLAS ANTTU¹, PHILLIP M WU¹, MATS-ERIK PISTOL¹, LARS SAMUELSON¹, and H. Q. XU^{1,2} — ¹Division of Solid State Physics and The Nanometer Structure Consortium (nmC@LU), Lund University, Sweden — ²Key Laboratory for the Physics and Chemistry of Nanodevices and Department of Electronics, Peking University, China

SC-3.4 TUE 14:45

Periodic diameter modulation and defect formation in InP nanowire growth: the role of catalyst instability — DOUGLAS S. OLIVEIRA¹, THALITA CHIARAMONTE², LUIZ H.G. TIZEI¹, DANIEL UGARTE¹, and ●MONICA A. COTTA¹ — ¹Universidade Estadual de Campinas, Instituto de Física Gleb Wataghin, Campinas, SP, Brazil — ²Universidade Federal de São João del Rei, São João del Rei, MG, Brazil

SC-3.5 TUE 15:00

Nanoscale Free-Carrier Profiling of Individual Semiconductor Nanowires by Infrared Near-Field Spec-

troscopy — ●JOHANNES STIEGLER¹, ANDREAS HUBER², SILKE DIEDENHOFEN³, JAIME GOMEZ RIVAS³, RIENK ALGRA^{4,6}, ERIK BAKKERS^{5,6}, RAMON TENA ZAERA⁷, ANDREY CHUVILIN^{1,8}, and RAINER HILLENBRAND^{1,8} — ¹CIC nanoGUNE Consolider, San Sebastian, Spain — ²Neaspec GmbH, Munich, Germany — ³FOM Institute AMOLF, c/o Philips Research Laboratories, Netherlands — ⁴Radboud University Nijmegen, Netherlands — ⁵Eindhoven University of Technology, Delft University of Technology, Netherlands — ⁶Philips Research Laboratories Eindhoven, Netherlands — ⁷Cidetec, San Sebastian, Spain — ⁸Ikerbasque, Basque Foundation for Science, Bilbao, Spain

SC-3.6 TUE 15:15

BEEM and in situ SEM nanoprobe measurements of Au/Cr/ GaAs Nanowires — ●AZADEH AKHTARIZAVAREH, SHIMA ALAGHA, OMID SALEHZADEH, SIMON P. WATKINS, and KAREN L. KAVANAGH — Department of Physics, Simon Fraser University, Burnaby, BC, Canada

SC-3.7 TUE 15:30

Core-shell CdTe-TiO₂ Nanostructured Solar Cell — MENGYAO ZHANG¹, YENNAI WANG¹, ETIENNE MOULIN², and ●JIA LU¹ — ¹Department of Physics & Astronomy and Department of Electrical Engineering, University of Southern California, Los Angeles, CA 90089-0484 (USA) — ²IEK5-Photovoltaik, Forschungszentrum Jülich GmbH, D-52425 Jülich, Germany

SC-3.8 TUE 15:45

How robust are Majorana modes in multiband semiconductor wires? — ●LLORENS SERRA^{1,2}, JONG SOO LIM¹, ROSA LÓPEZ^{1,2}, and AGUADO RAMÓN³ — ¹Institute for Cross-Disciplinary Physics and Complex Systems (UIBCSIC), E-07122 Palma, Spain — ²Physics Department, University of the Balearic Islands, E-07122 Palma, Spain — ³Teoría y Simulación de Materiales, Instituto de Ciencia de Materiales de Madrid, ICMM-CSIC Cantoblanco, E-28049 Madrid, Spain

Time: Tuesday 16:15–16:45

Location: Coffee Break

Coffee Break

PO4: Poster Session 4: Graphene and carbon nanotubes / Nanosystems, nanomechanics and manipulation

Time: Tuesday 17:00–19:00

Location: PO Cordeliers Réfectoire

PO4.1 TUE 17:00

Nanoceramic of TiO₂-MWCNTs — ●MONICA JIMENA BASANTE ROMO and RUBEN JESUS CAMARGO AMADO — Grupo de fisicoquímica de bio y nanomateriales, Escuela de Ingeniería Química, Facultad de Ingeniería, Universidad del Valle, Calle 13 No 100-00, Cali-Colombia

PO4.2 TUE 17:00

Dielectric properties of Multi-walled carbon nanotubes enhanced Polyvinylidene fluoride nanocomposites — ●SHUQIN LI, JINGWEN WANG, YE WANG, FANG WANG, and JUN XIAO — Nanjing University of Aeronautics and Astronautics, Nanjing, China

PO4.3 TUE 17:00

Damping Vibration Analysis of Viscoelastic Carbon Nanotubes — ●HAW-LONG LEE and WIN-JIN CHANG — Kun Shan University, Tainan 71003, Taiwan

PO4.4 TUE 17:00

Vibration analysis of a graphene resonator with an attached mass — ●WIN-JIN CHANG and HAW-LONG LEE — Department of Mechanical Engineering, Kun-Shan University, Tainan, Taiwan

PO4.5 TUE 17:00

Percolation laws for rheological and electrical properties of polystyrene composites filled with carbon nanotubes — CHIEN-LIN HUANG and ●CHI WANG — Department of Chemical Engineering, National Cheng Kung University, Tainan 701, Taiwan.

PO4.6 TUE 17:00

Facile Fabrication of Carbon Nanotube Devices on Various Substrates by Transfer Printing Method — QUY NGUYEN THANH, HUISEONG JEONG, JINWOONG KIM, and ●JI-YONG PARK — Department of Physics and Division of Energy Systems Research, Ajou University, Suwon, Korea

PO4.7 TUE 17:00

Adhesion and nanomechanical behavior of carbon nanotubes — ●TIANJUN LI and LUDOVIC BELLON — Université de Lyon, Laboratoire de physique - ENS Lyon, France

PO4.8 TUE 17:00

Nanometric Morphology of Graphene on 6H-SiC(0001) by Combined Dynamic STM and FM-AFM with a Tuning Fork Sensor — ●JOSÉ A. MORÁN MEZA¹, CHRISTOPHE LUBIN¹, FRANÇOIS THOYER¹, JÉRÔME POLESEL-MARIS¹, ABDELKARIM OUEGHI², and JACQUES COUSTY¹ — ¹IRAMIS, CEA, Gif-sur-Yvette,

France — ²Laboratory for Photonics and Nanostructures-CNRS, Marcoussis, France

PO4.9 TUE 17:00

Fullerenes on Graphene held together by van der Waals interaction

— ●MARTIN SVEC¹, PABLO MERINO², CESAR GONZALES³, and YANNICK DAPPE⁴ — ¹Institute of Physics ASCR, Cukrovarnicka 10 16200 Praha 6, Czech Republic — ²Instituto Nacional de Técnica Aeroespacial Ctra. de Ajalvir, Km.4 28850, Torrejón de Ardoz, Madrid, Spain — ³Institut de Physique et Chimie des Matériaux de Strasbourg, 23 Rue du Loess, BP 43, F-67034 Strasbourg Cedex 2, France — ⁴Instituto de Ciencia de Materiales de Madrid (CSIC) 28049-Madrid, Spain

PO4.10 TUE 17:00

Charge Transfer and Structural Rearrangement in Carbon Atomic Wires Probed by Surface Enhanced Raman Scattering — ●CARLO S. CASARI^{1,2}, ALBERTO MILANI³, ANDREA LUCOTTI³, FRANCO CATALDO⁴,

VALERIA RUSSO¹, ANDREA LI BASSI^{1,2}, and MATTEO TOMMASINI³ — ¹Dipartimento di Energia and NEMAS - Center for NanoEngineered Materials and Surfaces, Politecnico di Milano, via Ponzio 34/3, I-20133 Milano, Italy — ²CNST - Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Via Pascoli 70/3 I-20133 Milano, Italy — ³Dipartimento di Chimica, Materiali e Ingegneria Chimica 'G. Natta' and NEMAS - Center for NanoEngineered Materials and Surfaces, Politecnico di Milano, Piazza Leonardo da Vinci 32, I-20133 Milano, Italy — ⁴Actinium Chemical Research srl, via Casilina 1626/A, 00133 Roma, Italy and INAF - Osservatorio Astrofisico di Catania, Via S. Sofia 78, 95123 Catania, Italy

PO4.11 TUE 17:00

Graphene on Pt(111) intercalated by cobalt studied with STM and STS — THOMAS EELBO, MIKE GYAMFI, ●MARTA WASNIEWSKA, and ROLAND WIESENDANGER — Institute of Applied Physics, University of Hamburg, D-20355 Hamburg, Germany

PO4.12 TUE 17:00

Field-Flow fractionation-based process for size-homogenising carbon nanotubes — ●CÉLINE HENAULT, BRUNO GRASSL, JULIEN GIGAULT, and GAËTANE LESPEL — university of pau, pau, france

PO4.13 TUE 17:00

New Perspectives in Carbon Nanotube Characterisation: Over the Size Limits — JULIEN GIGAULT¹, CÉLINE HENAULT¹, BRUCE K. GALE², BRUNO BRASSL¹, and ●GAËTANE LESPEL¹ — ¹University of Pau, Pau, France

— ²University of Utah, Salt Lake City, Usa

PO4.14 TUE 17:00

AFM lithography of graphene using dynamic plowing — ●BORISLAV VASIĆ¹, MARKUS KRATZER², ALEKSANDAR MATKOVIĆ¹, ANDREAS PAVITSCHITZ², UROŠ RALEVIĆ¹, DJORDJE JOVANOVIĆ¹, CHRISTIAN GANSER², CHRISTIAN TEICHERT², and RADOŠ GAJIC¹ — ¹Institute of Physics, University of Belgrade, Belgrade, Serbia — ²Institute of Physics, Montanuniversität Leoben, Leoben, Austria

PO4.15 TUE 17:00

Photoemission from SWCNT/Cu nano hybrid — ●RIMA PAUL and APURBA KRISHNA MITRA — Nanoscience Laboratory, Department of Physics, National Institute of Technology Durgapur, Durgapur-713209, India

PO4.16 TUE 17:00

Characteristic optical and electrical properties of sulfonated polyaniline/functionalized single-walled carbon nanotube composites — RAJESH KUMAR AGRAWALLA, RIMA PAUL, AMIT KUMAR CHAKRABORTY, and ●APURBA KRISHNA MITRA — Nanoscience Laboratory, Department of Physics, National Institute of Technology Durgapur, Durgapur- 713209, India

PO4.17 TUE 17:00

Dynamics of Graphene Nanodrums: A Fully Atomistic Multi-million Atoms Study — GUSTAVO BRUNETTO¹, SERGIO LEGOAS², VITOR COLUCCI³, LIACIR LUCENA⁴, and ●DOUGLAS GALVAO¹ — ¹State University of Campinas, Campinas, Brazil — ²Federal University of Roraima, Boa Vista, Brazil — ³State University of Campinas, Limeira, Brazil — ⁴Federal University of Rio Grande do Norte, Natal, Brazil

PO4.18 TUE 17:00

Atomic structure and spectroscopy of graphene edges on Ir(111) — ●SOO HYON PHARK¹, JÉRÔME BORME^{1,2}, AUGUSTO LEÓN VANEGAS¹, MARCO CORBETTA¹, DIRK SANDER¹, and JÜRGEN KIRSCHNER¹ — ¹Max-Planck-Institut für Mikrostrukturphysik, Weinberg 2, 06120 Halle, Germany — ²International Iberian Nanotechnology Laboratory, Avenida Mestre José Veiga, 4715-310 Braga, Portugal

PO4.19 TUE 17:00

Transition Metal Doped Carbon Nanotube Superconductors — ●RAMINDER GILL¹ and POORAN SINGH² — ¹Apex Institute of Technology, India — ²Physics Department, Addis Ababa University, Ethiopia

PO4.20 TUE 17:00

Application of modified multiwalled carbon nanotubes as a nanosorbent for preconcentration and speciation of mercury before its determination by cold vapour atomic absorption spectrometry — ●NEDA BAGHBAN, ALI MOHAMMAD HAJI SHABANI, and SHAYESSTEH DADFARNIA — Department of Chemistry, Faculty of Science, Yazd University, Yazd, 89195-741, Iran

PO4.21 TUE 17:00

Ab initio and semi-empirical van der Waals study of π -type conjugated molecules adsorbed on graphene and a BN sheet — ●VASILE CACIUC¹, NICOLAE ATODIRESEI¹, MARTIN CALLSEN¹, PREDRAG LAZIĆ², and STEFAN BLÜGEL¹ — ¹Peter Grünberg Institut (PGI-1) and Institute for Advanced Simulation (IAS-1), Forschungszentrum Jülich and JARA, 52425 Jülich, Germany — ²Massachusetts Institute of Technology, Cambridge, 02139 Massachusetts, USA

PO4.22 TUE 17:00

Electronic Structures of Hydrogenated Graphene: Scanning Tunneling Spectroscopy Study — ●WONJUN JANG, HOWON KIM, JEUNG-HUM JEON, JONG KEON YOON, and SE-JONG KAHNG — Department of Physics, Korea University, 1-5 Anam-dong, Seongbuk-gu, 136-713, Seoul, Korea

PO4.23 TUE 17:00

An electron lens out of strained graphene — LUKAS GERHARD¹, ERIC MOYEN², ●TIMOFEY BALASHOV¹, IGOR OZEROV², MARC PORTAIL³, HOUDA SAHAF², LAURENCE MASSON², WULF WULFHEKEL¹, and MARGRIT HANBÜCKEN² — ¹Physikalisches Institut, Karlsruhe Institute of Technology, Germany — ²CINaM-CNRS, Aix-Marseille University, Marseille, France — ³CRHEA-CNRS, Valbonne, France

PO4.24 TUE 17:00

Positive Thermal Expansion Coefficient of Graphene Grown on Ir(111) even below 300 K — ●FABIEN JEAN¹, NILS BLANC², JOHANN CORAUX¹, and GILLES RENAUD² — ¹Institut Néel (CNRS), Grenoble, France — ²CEA INAC, Grenoble, France

PO4.25 TUE 17:00

Controlling Induced Magnetization in Graphene on hcp-Co(0001) and fcc-Co(111) surfaces through hydrogenation — ●PRASENJIT GHOSH, INDU KAUL, and NIRMALYA BALLAV — Indian Institute of Science Education and Research, Pune, India

PO4.26 TUE 17:00

Functionalization and Characterization of individual Carbon Nanotubes and Transport Devices — ●CAROLA MEYER¹, ROBERT FRIELINGHAUS¹, ANNA-KATHARINA SAELHOFF¹, CLAIRE BESSON¹, HENRIK FLÖTOTTO¹, LOTHAR HOUBEN², PAUL KÖGERLER¹, and CLAUS M. SCHNEIDER¹ — ¹Peter Grünberg Institute, Research Centre Jülich and JARA Fundamentals of Future Information Technologies, Jülich, Germany — ²Ernst Ruska-Center for Microscopy and Spectroscopy with Electrons, Forschungszentrum Jülich, Jülich, Germany

PO4.27 TUE 17:00

Dynamics of carbon nanopillar formation on pyrographite surface irradiated by a focused electron beam — GLEB ZHDANOV¹, ●ALISA MANUKHOVA², TARAS SHAROV³, and PAVEL ULYANOV⁴ — ¹Saint-Petersburg State University, Saint-Petersburg, Russia — ²Saint-

Petersburg State University, Saint-Petersburg, Russia —
³Saint-Petersburg State University, Saint-Petersburg, Russia —
⁴Saint-Petersburg State University, Saint-Petersburg, Russia

PO4.28 TUE 17:00

Nanostructuring epitaxial graphene grown on SiC by Focused Ion Beam irradiation — ●JEAN-MICHEL BENOIT¹, BRIGITTE PRÉVEL¹, PATRICE MÉLINON¹, ABDELKARIM OUEGHI², DAMIEN LUCOT², ERIC BOURHIS², and JACQUES GIERAK² — ¹LPMCN, UMR 5586, CNRS & Université de Lyon, Université Lyon 1, 69622 Villeurbanne, France — ²Laboratoire de Photonique et Nanostructure, CNRS, Route de Nozay, 91460 Marcoussis, France

PO4.29 TUE 17:00

Comparative studies of graphene by micro-Raman spectroscopy, AFM and visible- and near UV spectroscopic reflectometry — ●ZUZANA LISKOVA^{1,2}, MIROSLAV BARTOSIK^{1,2}, MICHAL URBANEK^{1,2}, MARTIN LEDINSKY³, ANTONIN FEJFAR³, JIRI SPOUSTA^{1,2}, and TOMAS SIKOLA^{1,2} — ¹Institute of Physical Engineering, Brno University of Technology, Faculty of Mechanical Engineering, Technicka 2, 616 69 Brno, Czech Republic — ²CEITEC BUT, Brno University of Technology, Technicka 2, 616 69 Brno, Czech Republic — ³Institute of Physics of the AS CR, Cukrovarnicka 10, 162 00 Praha, Czech Republic

PO4.30 TUE 17:00

Structure and Properties of Reduced Graphene Oxide — ●MICHAEL ENZELBERGER¹, SIEGFRIED EIGLER², PHILIPP HOFMANN¹, CHRISTOPH DOTZER², ANDREAS HIRSCH², and PAUL MÜLLER¹ — ¹Department of Physics and Interdisciplinary Center of Molecular Materials, Universität Erlangen-Nürnberg, Erwin-Rommel-Str. 1, 91058 Erlangen, Germany — ²Department of Chemistry and Pharmacy, University Erlangen-Nürnberg and Institute of Advanced Materials and Processes (ZMP), Henkestr. 42, 91054 Erlangen and Dr.-Mackstr. 81, 90762 Fürth, Germany

PO4.31 TUE 17:00

Synthesis of conducting transparent graphene layers directly on insulator at 450°C — CHANG SEOK LEE¹, COSTEL SORIN COJOCARU¹, WALEED MOUJAHID^{1,2}, BÉRENGÈRE LEBENTAL^{1,2}, MARC CHAIGNEAU¹, MARC CHÂTELET¹, FRANÇOIS LE NORMAND^{1,3}, and ●JEAN-LUC MAURICE¹ — ¹LPICM (Laboratoire de Physique des Interfaces et des Couches Minces) UMR 7647, CNRS-École polytechnique, 91128 Palaiseau Cedex, France — ²Université Paris-Est, IFSTTAR, 58 boulevard Lefebvre, 75732 Paris Cedex 15, France — ³InESS (Institut d'Electronique du Solide et des Systèmes) UMR 7163, Université de Strasbourg-CNRS, 23, rue du Loess, BP 20 CR, 67037 Strasbourg Cedex 2, France

PO4.32 TUE 17:00

Protein induced formation of Graphene Oxide thin film by Langmuir Blodgett technique — ●RATAN SARKAR¹, PRABIR PAL², and GOUTAM BUDHA TALAPATRA² — ¹Jogesh Chandra Chaudhuri Col-

lege, 30, Prince Anwar Shah Road, kolkata-700033, India — ²Department of Spectroscopy, Indian Association for the Cultivation of Science, Jadavpur, Kolkata-700032, India

PO4.33 TUE 17:00

Localized state and charge transfer in nitrogen-doped graphene — ●FRÉDÉRIC JOUCKEN¹, YANN TISON², JÉRÔME LAGOUTE², JACQUES DUMONT¹, TRUNG PHAM¹, DAMIEN CABOSART³, BING ZHENG³, VINCENT REPAIN², CYRIL CHACON², YANN GIRARD², ANDRÈS BOTELLO-MÉNDES³, SYLVIE ROUSSET², ROBERT SPORKEN¹, JEAN-CHRISTOPHE CHARLIER³, and LUC HENRARD¹ — ¹Research Center in Physics of Matter and Radiation (PMR), University of Namur, 61 rue de Bruxelles, 5000 Namur, Belgium — ²Laboratoire Matériaux et Phénomènes Quantiques, Université Paris Diderot Paris 7, Sorbonne Paris cité, CNRS, UMR 7162, case courrier 7021, 75205, Paris 13, France — ³Université Catholique de Louvain (UCL), Institute of Condensed Matter and Nanosciences (IMCN), 1/6 Place L. Pasteur, 1348 Louvain-la-Neuve, Belgium

PO4.34 TUE 17:00

Continuous-distribution puddle model for conduction in trilayer graphene — ●JIA LU, RICHARD THOMPSON, and YI-CHEN CHANG — Department of Physics & Astronomy, University of Southern California, Los Angeles, CA 90089, USA

PO4.35 TUE 17:00

Electrically Conductive Epoxy/ Graphene Adhesives Prepared by Melt Compounding And Its Self Healing Properties — ●ZAHRA KACHOEI and SEPIDEH KHOEE — university of tehran, tehran, iran

PO4.36 TUE 17:00

Oxidation of monovacancies in graphene by oxygen molecules — ●UDO SCHWINGENSCHLÖGL, THANESHWOR KALONI, and YINGCHUN CHENG — KAUST, PSE Division, 23955-6900 Thuwal, Kingdom of Saudi Arabia

PO4.37 TUE 17:00

Grüneisen parameter of the G mode of strained monolayer graphene — ●UDO SCHWINGENSCHLÖGL, YINGCHUN CHENG, and ZHIYONG ZHU — KAUST, PSE Division, 23955-6900 Thuwal, Kingdom of Saudi Arabia

PO4.38 TUE 17:00

Effects of Catalyst Nano Particle's Preparation Method on the CNTs Characteristics Synthesized on Zeolite Substrate, using CCVD Method. — ●ALI ASGHAR HOSSEINI, MOHADESEH SHADFAR, and MALIHEH PASHAEE — State University of Mazandaran, Babolsar, Iran

PO4.39 TUE 17:00

A green approach to the synthesis of graphene from different carbon sources — ●RAJANISH N. TIWARI and MASAMICHI YOSHIMURA — Toyota Technological Institute, Nagoya, Japan

PO4.40 TUE 17:00

Quantum Nano Memory using Nano Carbon Material — ●KAZUHIKO MATSUMOTO and TAKAFUMI KAMIMURA — Osaka University, Osaka, Japan

PO4.41 TUE 17:00

Preparation of Graphene on Metals Graphene/Metal Heterostructures — ●AMINA KIMOUCHE — CNRS-Institut Neel, Grenoble, France

PO4.42 TUE 17:00

Electronic Structure of Atomically Resolved Armchair Graphene Nanoribbon on 6H-SiC(0001) — ●MOHAMED RIDENE, JEAN CHRISTOPHE GIRARD, EMILIANO PALLECCHI, and ABDELKARIM OUERGI — CNRS-Laboratoire de Photonique et de Nanostructures (LPN), Route de Nozay, 91460 Marcoussis, France

PO4.43 TUE 17:00

Atomic force microscopy of synthetic rubber composites with carbon nanotubes — YURY YANOVSKY¹, ●HAMMAT VALIEV², MARINA BERCOVA³, MARINA GUSEVA⁴, YULIYA KARNET⁵, KSENYA KOSITCHKINA⁶, SERGEY NIKITIN⁷, LYUDMILA POLYANSKYH⁸, and OLEG YUMASHEV⁹ — ¹Foundation Russian Academy of Sciences, Institute of Applied Mechanics RAS, Moscow, Russia — ²Foundation Russian Academy of Sciences, Institute of Applied Mechanics RAS, Moscow, Russia — ³Foundation Russian Academy of Sciences, Institute of Applied Mechanics RAS, Moscow, Russia — ⁴Foundation Russian Academy of Sciences, Institute of Applied Mechanics RAS, Moscow, Russia — ⁵Foundation Russian Academy of Sciences, Institute of Applied Mechanics RAS, Moscow, Russia — ⁶Foundation Russian Academy of Sciences, Institute of Applied Mechanics RAS, Moscow, Russia — ⁷Foundation Russian Academy of Sciences, Institute of Applied Mechanics RAS, Moscow, Russia — ⁸Foundation Russian Academy of Sciences, Institute of Applied Mechanics RAS, Moscow, Russia — ⁹Foundation Russian Academy of Sciences, Institute of Applied Mechanics RAS, Moscow, Russia

PO4.44 TUE 17:00

Stone-Wales defect generation in carbon nanotube being fractured — ●SERGEI MOLIVER — State University Ulyanovsk, 432 970 Russia

PO4.45 TUE 17:00

Electron Energy Relaxation in Graphene — MATVEY ENTIN and ●LEV MAGARILL — Institute of Semiconductor Physics, Siberian Branch, Russian Academy of Sciences, Novosibirsk, Russia

PO4.46 TUE 17:00

Investigations of Disordered Graphene using Field Emission and Scanning Tunneling Microscopy/Spectroscopy — ●SUMATI PATIL¹, SADHU KOLEKAR¹, ARVIND KUMAR², PRASHANT ALEGAONKAR², SUWARNA DATAR², and CHANDRAKANT DHARMADHIKARI¹ — ¹Centre for Advanced Studies in Materials Science and Condensed Matter Physics, Department of Physics, University of Pune, Pune-411007, India — ²Department of Applied Physics, Defense Institute of

Advance Technology, Pune-411025, India

PO4.47 TUE 17:00

Interference enhancement of Raman signal from layer of graphene — ●SERGEY DYAKOV¹, TATIANA PEROVA¹, and YA-HONG XIE² — ¹Dept. of Electronic and Electrical Engineering, Trinity College Dublin, Dublin 2, Ireland — ²Dept. of Material Science and Engineering, University of California, Los Angeles, USA

PO4.48 TUE 17:00

Functionalisation of carbon nanotubes through ion irradiation — RACHAEL M HOUCHIN and ●MICHAEL RC HUNT — Centre for Materials Physics, Department of Physics, Durham University, Durham, UK

PO4.49 TUE 17:00

Computational studies of graphene structures adsorbed on SiC(0001) substrate — ●ARI PAAVO SEITSONEN — Physikalisch-Chemisches Institut, University of Zurich, Switzerland

PO4.50 TUE 17:00

Flexible Field Emission from Thermally Welded Chemically Doped Graphene Thin Films — ●HEE JIN JEONG, HAE DEUK JEONG, HO YOUNG KIM, SUNG HUN KIM, JUN SUK KIM, SEUNG YOL JEONG, JOONG TARK HAN, and GEON-WOONG LEE — Nano Carbon Materials Research Group, Korea Electrotechnology Research Institute (KERI), Changwon, 641-120, Korea

PO4.51 TUE 17:00

Field-Emission study of Carbon Nanotubes grown on dual layer catalyst by Low Pressure Chemical Vapour Deposition — ●JAVID ALI, AVSHISH KUMAR, SAMINA HUSAIN, SHAMA PARVEEN, DR HARSH, and MUSHAHID HUSAIN — Department of Physics, Jamia Millia Islamia (CentralUniversity), New Delhi, India

PO4.52 TUE 17:00

First-Principles Study of Spin-Polarized Current in Heterostructured C/BN Nanotubes — ●HUY DUY NGUYEN and TOMOYA ONO — Osaka University, Yamadaoka 2-1, Suita, Osaka 565-0871, Japan

PO4.53 TUE 17:00

Engineering the nanomaterials to tune their properties — ●KUNTAL CHATTERJEE — Department of Physics, Vidyasagar university, Midnapore 721102, India

PO4.54 TUE 17:00

Dissipation of AFM cantilevers as a function of air pressure and metallic coating — ●TIANJUN LI and LUDOVIC BELLON — Université de Lyon, Laboratoire de physique - ENS Lyon, France

PO4.55 TUE 17:00

Field-Induced Expansion Deformation in Pb Islands on Cu(111): Evidence from Energy Shift of Empty Quantum-Well States — ●WEI-BIN SU, WEN-YUAN CHAN, HSU-SHENG HUANG, and CHIA-SENG CHANG — In-

stitute of Physics, Academia Sinica, Nankang, Taipei 11529, Taiwan, R.O.C.

PO4.56 TUE 17:00

Structural and magnetic properties of mechanically alloyed Ni₅₀Co₅₀ powder mixtures — ●BENSEBAA NADIA¹, LOUDJANI NADIA¹, ALLEG SAFIA¹, DJEBBARI CHAFIA¹, BOUODINA MOHAMED², and AL SAE MOHAMED² — ¹Laboratoire de Magnétisme et Spectroscopie des Solides, Département de Physique, Faculté des Sciences, Université Badji Mokhtar, B.P. 12, 23000 Annaba, Algérie. — ²Nanotechnology Centre - University of Bahrain, Kingdom of Bahrain.

PO4.57 TUE 17:00

Computational Simulation on Fracture Properties of Gadolinium-Doped Ceria Electrolytes for Highly Durable Solid Oxide Fuel Cell — ●RYOTA SAKANOL, JINGXIANG XU, YUJI HIGUCHI, NOBUKI OZAWA, TOMOMI SHIMAZAKI, and MOMOJI KUBO — Fracture and Reliability Research Institute (FRRI), Graduate School of Engineering, Tohoku University, Japan

PO4.58 TUE 17:00

Fabrication of Lanthanoid (Eu, Y, Tb) nanoparticles in the cavity of ferritin — ●TOMOAKI HARADA and HIDEYUKI YOSHIMURA — University of Meiji, Japan

PO4.59 TUE 17:00

First-Principles Calculations on Chemical Mechanical Polishing Process of SiO₂ Surface — ●MIHO NAKAMURA, MUNHEYUKI ISHIKAWA, YUJI HIGUCHI, NOBUKI OZAWA, TOMOMI SHIMAZAKI, and MOMOJI KUBO — Fracture and Reliability Research Institute, Graduate School of Engineering, Tohoku University, Japan

PO4.60 TUE 17:00

First-Principles Calculations as an Alternative Way of Study Nanosystems — ●JAN ŁAŻEWSKI, PRZEMYSŁAW PIEKARZ, PAWEŁ T. JOCHYM, MAŁGORZATA STERNIK, KRZYSZTOF PARLINSKI, and MAŁGORZATA LITWINISZYN — Department of Materials Research by Computers, Institute of Nuclear Physics, Polish Academy of Sciences, Cracow, Poland

PO4.61 TUE 17:00

Size and Geometric effect of superconducting NbSe₂ layer: A Scanning Tunneling Microscopy study — ●SUNGMIN KIM, SANGJUN JEON, SEONG JOON LIM, MINJUN LEE, HONGWOO BAEK, BEOMYONG HWANG, and YOUNG KUK — Department of Physics and Astronomy, Seoul National University, Seoul, Republic of Korea

PO4.62 TUE 17:00

The anisotropy of the glassy properties of crystals and quasicrystals explained in an amended tunneling model — ●DRAGOS-VICTOR ANGHEL¹ and DMITRY CHUROCHKIN² — ¹Horia Hulubei National Institute for Physics and Nuclear Engineering, Măgurele, Romania — ²Faculty of Mathematical and Physical Sciences, University of Chile, Santiago, Chile

PO4.63 TUE 17:00

Anomalous response of supported few-layer hexagonal boron nitride to DC electric fields — ●CAMILLA OLIVEIRA, MATHEUS MATOS, MÁRIO MAZZONI, HÉLIO CHACHAM, and BERNARDO NEVES — Departamento de Física, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil.

PO4.64 TUE 17:00

Fractional exclusion statistics versus Fermi liquid theory – a paradigm shift — ●DRAGOS-VICTOR ANGHEL — Horia Hulubei National Institute for Physics and Nuclear Engineering, Măgurele, Romania

PO4.65 TUE 17:00

Tribochemical wear and failure of conductive AFM tips - an analytical electron microscopy study — VIRGINIA ALTOE¹, FLORENT MARTIN², BAS HENDRIKSEN², MIQUEL SALMERON², SHAUL ALONI¹, and ●FRANK D. OGLETREE¹ — ¹Molecular Foundry, LBNL, Berkeley, CA USA — ²Materials Science Division, LBNL, Berkeley CA USA

PO4.66 TUE 17:00

Vibration Analysis of a Carbon Nanotube-Based Mass — ●SHAO-SHU CHU and WIN-JIN CHANG — Kun Shan University, Mechanical Engineering, Tainan City, Taiwan R.O.C

PO4.67 TUE 17:00

Nanoindentation as Means of Measuring Variations in Adhesion at Cell Wall Level in a Wood Adhesive Bond — ●MICHAEL OBERSRIEBNIG and WOLFGANG GINDL-ALTMUTTER — BOKU University of Natural Resources and Life Sciences, Vienna

PO4.68 TUE 17:00

Mechanical manipulation of the electronic states of a single molecule by scanning force microscopy — ●SVEN STÖTTINGER¹, GERALD HINZE¹, CHEN LI², KLAUS MÜLLEN², and THOMAS BASCHÉ¹ — ¹Institute for Physical Chemistry, Johannes Gutenberg University, Mainz, Germany — ²Max Planck Institute for Polymer Research, Mainz, Germany

PO4.69 TUE 17:00

An investigation of physical and mechanical characteristics of Mg-Y₂O₃ nanocomposite synthesized via powder metallurgy route — ●MORTEZA ZARGAR SHOUSHTARI and ZAHRA KHABIR — Shahid Chamran University of Ahvaz, Golestan Blvd., Ahvaz, I. R. Iran

PO4.70 TUE 17:00

EPR evidence of Er²⁺ and Er⁴⁺ ions in nanocrystalline erbium - doped ceria — ●RAFAIL RAKHMATULLIN¹, LINAR AMINOV¹, IGOR KURKIN¹, ROLF BÖTTCHER², ANDREAS PÖPPL², and SABYASACHI SEN³ — ¹Laboratory of Magnetic Resonance Spectroscopy, Kremlevskaya, 18, Kazan Federal University, 420008 Kazan, Russia — ²Faculty of Physics and Earth Sciences, University of Leipzig, Linnéstrasse 5, D-04103 Leipzig, Germany —

³Department of Chemical Engineering and Materials Science, University of California at Davis, California 95616, USA

PO4.71 TUE 17:00

Fractal Analysis of Atomic Force Microscopy Images of Stearic Acid Langmuir-Blodgett Thin Films for Insights on Gas Sensing Properties — ●STEFAN G. STANCIU¹, GEORGE A. STANCIU¹, ZIKRIYE OZBEK², and RIFAT CAPAN² — ¹Center for Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest, Bucharest, Romania — ²Physics Department, Science Faculty, Balikesir University, Balikesir, Turkey

PO4.72 TUE 17:00

The Nature of Mechanical Deformation of Zinc Oxide Single Crystals by nanoindentation — ●ELIZANDRA SILVA¹, PAULA CALDAS¹, RODRIGO PRIOLI¹, REID JUDAY², JINGYI HUANG², ALEC FISCHER², and FERNANDO PONCE² — ¹Departamento de Física, Pontifícia Universidade Católica do Rio de Janeiro, Marques de São Vicente 225, Rio de Janeiro, 22453-900 Rio de Janeiro, Brazil — ²Department of Physics, Arizona State University, Tempe, Arizona 85287-1504, USA

PO4.73 TUE 17:00

The nature of mechanical deformation in GaN films by sharp-asperity nano-indentation — ●PAULA G. CALDAS¹, ELIZANDRA M. SILVA¹, RODRIGO PRIOLI¹, ALEC M. FISCHER², JINGYI HUANG², REID JUDAY², and FERNANDO A. PONCE² — ¹Pontifícia Universidade Católica do Rio de Janeiro — ²Arizona State University

PO4.74 TUE 17:00

Thermal local remote control with gold nanocrescents — ●XUAN HOA VU^{1,2}, MICHAEL LEVY¹, THOMAS BARROCA¹, HONG NHUNG TRAN³, and EMMANUEL FORT¹ — ¹Centre d'Imageries Plasmoniques Appliquées, Institut Langevin ESPCI ParisTech, CNRS UMR 7587, & INSERM ERL U979, 10 rue Vauquelin, 75231 Paris Cedex 05, France — ²College of Sciences, Thai Nguyen University (TNU), Quyet Thang, Thai Nguyen City, Vietnam — ³Laboratory of Laser Spectroscopy, Institute of Physics, VAST, 10 Dao Tan, Ba Dinh, Hanoi, Vietnam

PO4.75 TUE 17:00

Comparison of Continuous Multi-cycle and Individual Indentation Methods in Nano-hardness Measurement — ●HAE JIN KIM and DAE EUN KIM — Department of Mechanical Engineering, Yonsei University, Seoul, Republic of Korea

PO4.76 TUE 17:00

Shell thickness effects on the vibrational spectra of a spherical elastic shell — ●YAN-CHR TSAI¹ and CHIH-LI WENG² — ¹Department of Physics, National Chung Cheng University, Chiayi 621, Taiwan — ²Department of Physics and National Center for Theoretical Sciences, National Cheng Kung University, Tainan 701, Taiwan

PO4.77 TUE 17:00

GaAs disks nano-optomechanics — CHRISTOPHE BAKER¹, DAVID PARRAIN¹, PASCALE SENELLART², ARISTIDE LEMAITRE², SARA DUCCI¹, GIUSEPPE LEO¹, and ●IVAN FAVERO¹ — ¹Matériaux et Phénomènes Quantiques, Université Paris Diderot, CNRS, Paris, France — ²Laboratoire de Photonique et Nanostructures, CNRS, Marcoussis, France

PO5: Poster Session 5: Nano-biology and nano-medicine

Time: Tuesday 17:00–19:00

Location: PO Arches

PO5.1 TUE 17:00

Green Synthesis of Silver Nanoparticles from Botanical Sources and Their Use for Control of Agricultural and Medical Insects and Malaria Parasites — ●KADARKARAI MURUGAN¹, K PAVITHRA SHRI¹, and DONALD BARNARD² — ¹Bharathiar University, Coimbatore, Tamil Nadu, India — ²US Department of Agriculture, Gainesville, Florida, USA

PO5.2 TUE 17:00

Silicate nanoparticle inhibits VEGF-mediated retinal neovascularization by suppression of ERK signaling pathway — ●JIN HYOUNG KIM¹, DONG HYUN JO^{1,2}, TAE GEOL LEE³, and JEONG HUN KIM^{1,2} — ¹Fight against Angiogenesis-Related Blindness (FARB) laboratory, Seoul National University Hospital, Seoul, Republic of Korea — ²Department of Ophthalmology, College of Medicine, Seoul National University, Seoul, Republic of Korea — ³Center for Nano-Bio Technology, Division of Convergence Technology, Korea Research Institute of Standards and Science (KRISS), Daejeon, Republic of Korea

PO5.3 TUE 17:00

Intravenously Administrated Gold Nanoparticles Pass Through Blood-retinal Barrier Depending on the Particle Size, and Induce No Retinal Toxicity — ●JEONG HUN KIM^{1,2}, MYUNG HUN KIM³, YOUNG SUK YU^{1,2}, and JIN HYOUNG KIM¹ — ¹Fight against Angiogenesis-Related Blindness (FARB) laboratory, Seoul National University Hospital, Seoul, Republic of Korea — ²Department of Ophthalmology, College of Medicine, Seoul National University, Seoul, Republic of Korea — ³Department of Chemistry, Yonsei University, Seoul, Republic of Korea

PO5.4 TUE 17:00

Electrospun nanofibers from chitosan/nanosilver composites for biomedical applications — ●HAJIR BAHRAMI¹ and HOSNIE BAHERI² — ¹Amirkabir University of Technology Hafez Ave. Tehran Iran — ²Amirkabir University of Technology Hafez Ave. Tehran Iran

PO5.5 TUE 17:00

Energy dispersive X-ray spectroscopy (EDX) analysis for mass and elementary mapping of elements in marine turtle eggshells from Thailand — ●MAYUVA AREEKISERE¹, SURASWADEE NUAMSUKON¹, CHOCKPISIT THEPSITHAR¹, KANLAYA SRIBUDDHACHART¹, and THANAPORN CHUEN-IM² — ¹Department of Biology, Faculty of Science, Silpakorn University, Nakorn Pathom 73000, Thailand. — ²Department of Microbiology, Faculty of Science, Silpakorn University, Nakorn Pathom 73000, Thailand.

PO5.6 TUE 17:00

Classification on microstructure of sea turtle eggshells: green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricata*), and leatherback turtle (*Dermochelys coriacea*) by SEM/SEI — MAYUVA AREEKISEREE¹, SURASWADEE NUAMSUKON¹, and ●THANAPORN CHUEN-IM² — ¹Department of Biology, Faculty of Science, Silpakorn University, Nakorn Pathom 73000, Thailand. — ²Department of Microbiology, Faculty of Science, Silpakorn University, Nakorn Pathom 73000, Thailand.

PO5.7 TUE 17:00

Field effect transistor based biosensor with a phospholipid monolayer as gate dielectric — ●TUYEN NGUYEN DUC, JEAN-MANUEL RAIMUNDO, HERVÉ DALLAPORTA, and ANNE CHARRIER — Centre Interdisciplinaire de Nanoscience de Marseille, CINaM, CNRS, Aix-Marseille Université, Marseille, France

PO5.8 TUE 17:00

Application of sewage sludge nano powder for removal of heavy metal ions from aqueous solutions — ●MOHAMMAD REZA GHASRI, SIMA HABIBI, and NEMATOLLAH KARAMAD — Islamic Azad University, Shahr-e-Rey branch, Tehran - Iran

PO5.9 TUE 17:00

Biogenic ferroxides obtained from laboratory cultured *Leptothrix* bacterial strain — IVAN NEDKOV¹, LUBOMIR SLAVOV², VENETA GROUDEVA³, and ●MICHAIL ILIEV⁴ — ¹Institute of Electronics, Bulgarian Academy of Sciences, Sofia, Bulgaria — ²Institute of Electronics, Bulg. Acad. Sci., Sofia, Bulgaria — ³Sofia University "Kliment Ohridski", Sofia, Bulgaria — ⁴, Institute of Microbiology, Bulg. Acad. Sci., Sofia, Bulgaria

PO5.10 TUE 17:00

Study of diamond nanoparticles interaction with living unicellular organism in-vivo — ●ELENA PEREVEDENTSEVA^{1,2}, YU CHUNG LIN¹, LING-WEI TSAI¹, DONG HAN WU¹, and CHIA-LIANG CHENG¹ — ¹National Dong Hwa University, Hualien, Taiwan — ²P.N. Lebedev Physics Institute, Rus. Acad. Sci., Moscow, Russia

PO5.11 TUE 17:00

In Vivo Investigation of TiO₂ Nanoparticles and Vincristine Combined Effects on Chromosome Abnormalities in Male Balb/c Mice — ●ZAHRA SAGHIRI¹, MASOUD SALEH-MOGHADAM¹, and MOHAMMAD-SARMAD NABAVI² — ¹Graduate Department of Biochemistry, Fac-

ulty of Science, Payame Noor University of Mashhad, Mashhad, Iran — ²Graduate Department of Agriculture, Faculty of Science, Payame Noor University of Mashhad, Mashhad, Iran

PO5.12 TUE 17:00

Theoretical and Numerical Calculations for the Dynamics of Dilute Colloidal Suspensions of Molecular Nano-Particles inside Mesopores — ●ALI ATWI^{1,2}, ANTOINE KHATER¹, and ABBAS HIJAZI² — ¹Laboratoire de Physique de l'Etat Condensé UMR 6087, Université du Maine, F-72085 Le Mans, France — ²Department of Physics, Faculty of Science, Lebanese University, Hadath-Beirut, Lebanon

PO5.13 TUE 17:00

Ploxamer-based hydrogels for sumatriptan: structural studies by Small-Angle X-ray Scattering (SAXS) — ●ALISSON OSHIRO¹, DEYSE CARDOSO DA SILVA¹, LEIDE PASSOS CAVALCANTI², MELISSA INGER ALKSCHBIRS³, MARGARETH KAZUYO KOBAYASHI DIAS FRANCO², FABIANO YOKAICHIYA², and DANIELE RIBEIRO DE ARAUJO¹ — ¹Human and Natural Sciences Center, Federal University of ABC, Santo André, SP, Brazil — ²National Laboratory of Synchrotron Light, Campinas, SP, Brazil — ³Institute of Chemistry, State University of Campinas, Campinas, SP, Brazil

PO5.14 TUE 17:00

Violacein Poly (epsilon-caprolactone) Microparticles and Poly (D, L-lactide-co-glycolide) Nanoparticles and Their Spectral Properties — ●NELSON DURÁN^{1,2}, MARCELO M.M. DE AZEVEDO¹, MARCELA DURÁN¹, ADELAIDE FALJONI-ALARIO², DANIELA M. RIDOLFI¹, PATRICIA S. MELO³, and PRISCYLA D. MARCATO¹ — ¹Instituto de Química, Biological Chemistry Laboratory, Universidade Estadual de Campinas, C.P. 6154, CEP 13084-970, Campinas SP, Brazil — ²Center of Natural and Human Sciences, Universidade Federal do ABC, CEP 09.210-170, Santo André, SP., Brazil — ³Department of Biochemistry VERIS-METROCAMP, Campinas, SP, Brazil.

PO5.15 TUE 17:00

Particle charge measurement for nanomedicine using resistive pulse sensing — ●JAMES ELF ELDRIDGE^{1,2,3}, GEOFF WILLMOTT^{1,2}, and ROBERT VOGEL⁴ — ¹MacDiarmid Institute for Advanced Materials and Nanotechnology, New Zealand — ²Industrial Research Limited, PO Box 31-310, Lower Hutt, New Zealand — ³School of Chemical and Physical Sciences, Victoria University of Wellington, New Zealand — ⁴Izon Science Ltd, Burnside, Christchurch 8053, New Zealand

PO5.16 TUE 17:00

Identification and isolation of neural stem cells in cultures with magnetic nanoparticles — ●CATHY N.P. LUI¹, W.H. LI², and KEN K.L. YUNG¹ — ¹Department of Biology, Hong Kong Baptist University, Kowloon Tong, Hong Kong — ²Department of Chemistry, Hong Kong Baptist University, Kowloon Tong, Hong Kong

PO5.17 TUE 17:00

Enhancement of gene silencing effects of small interfering RNAs by nanoparticles — ●CATHERINE Y.Y. IU¹, H.W. LI², and KEN K.L. YUNG¹ — ¹Department of Biology, Hong Kong Baptist University, Kowloon Tong, Hong Kong — ²Department of Chemistry, Hong Kong Baptist University, Kowloon Tong, Hong Kong

PO5.18 TUE 17:00

Atomic Force Microscopy of Cellular Damage in Human Keratinocytes Exposed at Pesticide Solution — ●PALMA D'ANTONIO¹, GIUSEPPE PERNA¹, MARIA LASALVIA², GIUSEPPE QUARTUCCI¹, and VITO CAPOZZI¹ — ¹Dipartimento di Scienze Biomediche, Università di Foggia, Viale Pinto, 71100 Foggia (Italy) — ²Dipartimento di Scienze Mediche e del Lavoro, Università di Foggia, Viale Pinto, 71100 Foggia (Italy)

PO5.19 TUE 17:00

Clay Polymer Nanocomposites as a Carrier for Oral Controlled Release of an Anticancer Drug — ●SEEMA LAL and MONIKA DATTA — Department of Chemistry, University of Delhi, Delhi-110007, India

PO5.20 TUE 17:00

Relating the Physical Properties of *Pseudomonas aeruginosa* Lipopolysaccharides to Virulence using Atomic Force Microscopy — IVAN I IVANOV¹, ERICA N KINTZ², LAURA A PORTER², JOANNA B GOLDBERG², ●FREDERICK L HUTSON³, NANCY A BURNHAM³, and TERRI A CAMESANO³ — ¹Department of Chemical Engineering, Worcester Polytechnic Institute, Worcester, MA USA — ²Department of Microbiology, University of Virginia, Charlottesville, VA USA — ³Department of Physics, Worcester Polytechnic Institute, Worcester, MA USA

PO5.21 TUE 17:00

Synthesis of Fe₃O₄@Au core-shell nanoparticles for possible biomedical applications. — ●HAJAR MALEKI¹, LUISA DURÃES², ANTÓNIO PORTUGAL², and ABDOLREZA SIMCHI¹ — ¹Institute for Nanoscience and Nanotechnology, Sharif University of Technology, Tehran, 1588774185, Iran — ²Department of Chemical Engineering, University of Coimbra, Coimbra, 3030-790, Portugal

PO5.22 TUE 17:00

Interactions of Fullerene C₆₀ and Canine Parvovirus — ●ELINA DADU, JONNA NYKKY, and MATTI VUENTO — University of Jyväskylä, Jyväskylä, Finland

PO5.23 TUE 17:00

Imine-Bonded Silica Nanoparticles as Potential Nanocarriers for pH-Triggered Release of Antituberculosis Drugs in Macrophages — ●CHENG-CHUNG CHOU and KE-TING FU — Center for Nano Bio-Detection and Department of Life Science, National Chung Cheng University, Chia-Yi 62102, Taiwan

PO5.24 TUE 17:00

Exploring atomic force microscopy for single cell manipulations — ●REHANA AFRIN¹, UMME SALMA-

ZOHRA², HIRONORI UEHARA², TAKAHIRO WATANABE-NAKAYAMA¹, SHIN-ICHI MACHIDA¹, MASAKAZU SAITO¹, KAZUAKI INABA³, KIKUO KISHIMOTO³, and ATSUSHI IKAI¹ — ¹Innovation Laboratory, Tokyo Institute of Technology, 4259 Nagatsuta, Midori-ku, Yokohama 226-8501, Japan. — ²Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology, 4259 Nagatsuta, Midori-ku, Yokohama 226-8501, Japan. — ³Graduate School of science and Engineering, Tokyo Institute of Technology, Meguro-ku, Tokyo 152-8550, Japan.

PO5.25 TUE 17:00

Amelioration of experimental arthritis in rats by galectin-1-nanogold complex — ●CHAO-LIANG WU¹, YEN-JANG HUANG¹, SHIH-YAO CHEN¹, YUAN-TSUNG LI¹, and AI-LI SHIAU² — ¹Department of Biochemistry and Molecular Biology, National Cheng Kung University Medical College, Tainan, Taiwan — ²Department of Microbiology and Immunology, National Cheng Kung University Medical College, Tainan, Taiwan

PO5.26 TUE 17:00

Multivalent structure of galectin-1-nanogold complex mediates apoptotic signalling in T cells through enhancing receptor clustering — ●YEN-JANG HUANG¹, AI-LI SHIAU², CHIA-HSING LEU¹, and CHAO-LIANG WU¹ — ¹Department of Biochemistry and Molecular Biology, National Cheng Kung University Medical College, Tainan, Taiwan — ²Department of Microbiology and Immunology, National Cheng Kung University Medical College, Tainan, Taiwan

PO5.27 TUE 17:00

A novel broad-spectrum nanoparticle-based inhibitor of influenza virus — ●AI-LI SHIAU¹, MEI-LIN YANG¹, YU-HUNG CHEN², and CHAO-LIANG WU² — ¹Department of Microbiology and Immunology, National Cheng Kung University Medical College, Tainan, Taiwan — ²Department of Biochemistry and Molecular Biology, National Cheng Kung University Medical College, Tainan, Taiwan

PO5.28 TUE 17:00

Multicomponent tethered bilayers by lipid exchange with vesicles — ●RIMA BUDVYTYTE¹, TADAS RAGALIAUSKAS², and GINTARAS VALINCIUS³ — ¹Vilnius University Institute of Biochemistry, Lithuania. — ²Vilnius University, Institute of Biochemistry, Lithuania — ³Vilnius University, Institute of Biochemistry, Lithuania

PO5.29 TUE 17:00

Raman and AFM investigations of nanoparticles tumoral cells interactions — ●RARES STIUFIUC¹, CRISTIAN IACOVITA², GABRIELA STIUFIUC³, LUCIAN MOCAN¹, TEODORA MOCAN¹, BOGDAN COZAR⁴, IOAN TURCU⁴, and CONSTANTIN LUCACIU¹ — ¹Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania — ²Regional Institute of Gastroenterology-Hepatology, Cluj-Napoca, Romania — ³Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania — ⁴Molecular and Biomolecular Physics Department, INCDTIM, Cluj-Napoca, Roma-

nia

PO5.30 TUE 17:00

Multipurpose biochips - Toward on-chip medicine — ●GIUSEPPE MARUCCIO, ELISABETTA PRIMICERI, MARIA SERENA CHIRIACÒ, ANNA GRAZIA MONTEDURO, and ROSS RINALDI — CNR-Institute of nanoScience, Physics Dep., Università del Salento

PO5.31 TUE 17:00

A Stochastic Surrogate Hamiltonian approach of coherent & incoherent exciton transport in the FMO complex. — ●NICOLAS RENAUD and MARK RATNER — Department of chemistry Northwestern University, Evanston, IL USA

PO5.32 TUE 17:00

A real-time high throughput method for evaluating nanoparticles toxicity on adherent cells lines — ●JACQUES-AURELIEN SERGENT, VINCENT PAGET, ROMAIN GRALL, SANDRINE MOREL-ALTMAYER, and SYLVIE CHEVILLARD — CEA-DSV, Fontenay-Aux-Roses, France

PO5.33 TUE 17:00

Optical Properties of Passivated InP Nanoparticles with Mercaptosuccinic Acid — SAUL ARIAS-CERON¹, PATRICIA GONZALEZ-ARAUZ^{2,3}, FRANCISCO SANCHEZ-RAMIREZ⁴, ●JOSE LUIS HERRERA-PEREZ⁴, JUAN HERNANDEZ-ROSAS⁴, JUAN PEDRO LUNA-ARIAS⁵, FABIOLA VAZQUEZ-HERNANDEZ⁶, and JULIO G MENDOZA-ALVAREZ⁷ — ¹CICATA-IPN. Unidad Legaria. Av. Irrigacion 694. Mexico DF 11500. Mexico — ²CIBA-IPN. Tepetitla, Tlax. 90700. Mexico — ³Faculty of Engineering-BUAP. Puebla, Pue. 72570. Mexico — ⁴UPIITA-IPN. Av. IPN 2570. Mexico DF 07340. Mexico — ⁵Department of Cellular Biology. Cinvestav-IPN. A.P. 14-740. Mexico DF 07000. Mexico — ⁶Program on Nanoscience and Nanotechnology. Cinvestav-IPN. A.P. 14-740. Mexico DF 07000. Mexico — ⁷Physics Department. Cinvestav-IPN. Mexico DF 07000. Mexico

PO5.34 TUE 17:00

Fabrication and Characterization of Biocompatible Electrospun Nanofibers of Poly(anthranilic acid)/Poly(vinyl pyrrolidone) — ●ECE POLAT¹, TIMUÇIN BALKAN², and A. SEZAI SARAÇ^{1,2} — ¹Department of NanoScience NanoEngineering, Istanbul Technical University, Istanbul, Turkey — ²Department of Chemistry, Polymer Science and Technology, Istanbul Technical University, Istanbul, Turkey

PO5.35 TUE 17:00

Detection of microRNA using LSPR spectroscopy for diagnostic applications — ●LUDMILA FROLOV, ALEXANDER VASKEVICH, and ISRAEL RUBINSTEIN — Weizmann Institute of Science, Rehovot, Israel

PO5.36 TUE 17:00

Fluorescence nano-particles for highly efficient multi-photon biomagings and thermal sensing — ●CARLOS JACINTO¹, UÉSLEN ROCHA¹, LAURA

M. MAESTRO², FIORENZO VETRONE³, JOHN A. CAPOBIANCO⁴, DANIEL JAQUE², and JOSÉ GARCÍA SOLÉ² — ¹Grupo de Fotónica e Fluidos Complexos, Instituto de Física, Universidade Federal de Alagoas, 57072-970, Maceio-AL, Brazil — ²Fluorescence Imaging Group, Departamento de Física de Materiales, Facultad de Ciencias, Universidad Autónoma de Madrid, Madrid, 28049, Spain — ³Institut National de la Recherche Scientifique - Énergie, Matériaux et Télécommunications, Université du Québec, Varennes, QC J3X 1S2, Canada — ⁴Department of Chemistry and Biochemistry, Concordia University, Montreal, QC H4B 1R6, Canada

PO5.37 TUE 17:00

Investigation on toxicity of nanoparticles in fibroblasts cells. — ●ZAHRA AKBARI¹, MOHAMMAD ALI SHOKRGOZAR², and TALAT GHOMASHCHI³ — ¹School of Chemical Engineering, Collage of Engineering, Tehran University, Tehran, Iran — ²Institut Pasteur of Iran, Tehran, Iran — ³School of Chemical Engineering, Collage of Engineering, Tehran University, Tehran, Iran

PO5.38 TUE 17:00

Targeted Therapy HER2/neu-Positive Cancer Cells by Lycopene-Producing Bacteria — YUN-PENG CHAO¹ and ●CHUNG-JEN CHIANG² — ¹Department of Chemical Engineering, Feng Chia University, Taichung, Taiwan — ²Department of Medical Laboratory Science and Biotechnology, China Medical University, Taichung, Taiwan

PO5.39 TUE 17:00

Targeted Imaging and Therapy by a Nanoparticles-Conjugated Biopolymer — ●CHUNG-JEN CHIANG¹ and YUN-PENG CHAO² — ¹Department of Medical Laboratory Science and Biotechnology, China Medical University, Taichung, Taiwan — ²Department of Chemical Engineering, Feng Chia University, Taichung, Taiwan

PO5.40 TUE 17:00

PLGA and PLGA-PEG blend nanoparticles increase the oral bioavailability of curcumin — ●RUBIANA MARA MAINARDES, THUANE CASTRO FRABEL DO NASCIMENTO1 DO NASCIMENTO, ANA CRISTINA DE MATTOS, LUCIANA DALMOLIN, DIANI CASA, DANIEL BRUSTOLIN LUDWIG, and NAJEH MAISSAR KHALIL — Department of Pharmacy, Universidade Estadual do Centro-Oeste/UNICENTRO, Rua Simeão Camargo Varela de Sá 03, 85040-080 Guarapuava, PR * Brazil.

PO5.41 TUE 17:00

Analysis of micro/nanoencapsulated porphyrin formulation for PDT treatment in biological system — ●ANDREZA PEREIRA SANTOS¹, ANDRE BACHI², DAIANA KOTRA DEDA³, KOITI ARAKI³, EDUARDO CARITÁ³, and LUCIA JAMLI ABEL¹ — ¹Universidade Paulista, São Paulo, Brazil — ²Universidade Federal de São Paulo, São Paulo, Brazil — ³Universidade de São Paulo, São Paulo, Brazil

PO5.42 TUE 17:00

Multiprobe AFM Bio-Imaging: The Next Evolution in SPM — HESHAM TAHA¹, ●RIMMA DEKHTER¹,

GALINA FISH¹, SOPHIA KOKOTOV¹, MICHAEL KOKOTOV¹,
DAVID LEWIS¹, and AARON LEWIS² — ¹Nanonics Imaging

Ltd, Jerusalem, Israel — ²Hebrew University of Jerusalem,
Jerusalem, Israel

PO6: Poster Session 6: Scanning probe microscopy and instrumentation

Time: Tuesday 17:00–19:00

Location: PO Gallery St Germain

PO6.1 TUE 17:00

Polymerization of Monomolecular Layer Containing Pyrrolyl Groups by Chemical Adsorption — ●SHIN-ICHI YAMAMOTO¹ and KAZUFUMI OGAWA² — ¹Department of Electronics and Informatics, Faculty of Science and Technology, Ryukoku University, 1-5, Yokotani, Oe-cho, Seta, Otsu City, Siga 520-2194, Japan — ²Department of Advanced materials Science, Faculty of Engineering, Kagawa University, 2217-20, Hayashi-cho, Takamatsu, Kagawa 761-0396, Japan

PO6.2 TUE 17:00

High-Resolution Imaging of Supermolecular, Ferri-ritin, by High-Speed Atomic Force Microscopy — ●SHIN-ICHI YAMAMOTO¹, YUKIHARU URAOKA², and ICHIRO YAMASHITA³ — ¹Department of Electronics and Informatics, Faculty of Science and Technology, Ryukoku University, 1-5, Yokotani, Oe-cho, Seta, Otsu, Siga 520-2194, Japan — ²Materials Science, Nara Institute of Science and Technology, 8916-5, Takayama, Ikoma, Nara, 630-0192, Japan — ³Panasonic Corporation, Hikaridai 3-4, Seika-cho, Kyoto 619-0237, Japan

PO6.3 TUE 17:00

Generation of Microwave Frequency Comb in a Scanning Tunneling Microscope by a Mode-Locked Ultrafast Laser — ●MARK HAGMANN¹ and DMITRY YAROTSKI² — ¹NewPath Research L.L.C., Salt Lake City, Utah, U.S.A. — ²Center for Integrated Nanotechnologies, Los Alamos National Laboratory, Los Alamos, New Mexico, USA

PO6.4 TUE 17:00

Analysis of Root Mean Square Roughness of Microcrystalline Silicon Thin Films Using Scanning Probe Image Processor software — ●THOMAS NYACHOTI NYANGONDA¹, DAVID MASABULE MULATI², and BENARD ODHIAMBO ADUDA¹ — ¹University of Nairobi, Physics Department, Box 30197, 00100, Nairobi, Kenya — ²Jomo Kenyatta University of Agriculture and Technology, Physics Department, Box 62000, 00200, Nairobi, Kenya.

PO6.5 TUE 17:00

A Dual Tip mK STM system for Imaging the Superconducting Phase Difference — ●ANITA ROYCHOWDHURY^{1,2}, MARK A. GUBRUD³, MICHAEL DREYER^{1,2}, JAMES R. ANDERSON¹, CHRISTOPHER J. LOBB¹, and FREDERICK C. WELLSTOOD¹ — ¹University of Maryland, College Park, U.S.A — ²Laboratory for Physical Sciences, College Park, U.S.A — ³University of North Carolina, Chapel Hill, U.S.A

PO6.6 TUE 17:00

Conductance of a STM contact on the surface of a thin film — ●NATALIA KHOTKEVYCH¹, YURIY KOLESNICHENKO¹, and JAN M. VAN RUITENBEEK² — ¹B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine, Kharkov, Ukraine. — ²Kamerlingh Onnes Laboratorium, Universiteit Leiden, Leiden, The Netherlands.

PO6.7 TUE 17:00

Influences of Modulation Biases on Scanning Capacitance Microscopic Images of Electrical Junctions — ●MAO-NAN CHANG^{1,2} and CHIN-WEI HU¹ — ¹Department of Physics, National Chung Hsing University, Taichung, Taiwan — ²Institute of Nanoscience, National Chung Hsing University, Taichung, Taiwan

PO6.8 TUE 17:00

Super-higher order nonlinear dielectric microscopy studies on ferroelectric materials and semiconductor devices — ●NORIMICHI CHINONE, KOHEI YAMASUE, YOSHIOMI HIRANAGA, KOICHIRO HONDA, and YASUO CHO — Research Institute of Electrical Communication, Tohoku University, 2-1-1 Katahira, Aoba-ku, Sendai 980-8577, Japan

PO6.9 TUE 17:00

Domain Structures of a Magnetic Main Pole in a Hard Disk Drive Head — ●KEIJI TAKATA — Faculty of Engineering Science, Kansai University, 3-3-35 Yamate-cho, Suita, Osaka, 564-8680, Japan

PO6.10 TUE 17:00

Investigation on surface interactions during *Xylella fastidiosa* initial adhesion stages by Scanning Probe Microscopy — GABRIELA S. LORITE¹, RICHARD JANISSEN¹, ALBERTO L.D. MOREAU¹, JOÃO H. CLERICI¹, ALESSANDRA A.DE SOUZA², and ●MÔNICA A. COTTA¹ — ¹Universidade Estadual de Campinas, Instituto de Física Gleb Wataghin, Campinas, SP, Brazil — ²Centro APTA Citrus Sylvio Moreira, Instituto Agrônômico, Cordeirópolis, SP, Brazil

PO6.11 TUE 17:00

Quartz tuning fork based nanosensors for soft biological samples characterization — ●LAURA GONZÁLEZ, JORGE OTERO, and MANEL PUIG-VIDAL — SIC-BIO, Bioelectronics and Nanobioengineering Group, Department of Electronics, University of Barcelona, Martí i Franques, 1, 08028, Barcelona, Spain

PO6.12 TUE 17:00

Sub-Nanosecond Spectroscopy with a Scanning Tunneling Microscope — BEN MACLEOD, IAN MOULT, GRAEME ADAMSON, MARIE HERVE, KIRILL SAPCHUK,

•STEPHANIE GROTHE, DOUG A. BONN, and YAN PEN-NEC — Department of Physics and Astronomy, University of British Columbia, Vancouver BC, Canada

PO6.13 TUE 17:00

A new high-speed and dynamic AFM imaging method — •MUJDAT BALANTEKIN — Izmir Institute of Technology, 35430 Izmir, Turkey

PO6.14 TUE 17:00

SSRM Measurements of Semiconductor Surfaces Using Carbon Nanofiber Probes — •MASASHI KITAZAWA¹, RYO OHTA¹, KOJI SAIDA², MASASHI KUBOTA², and MASAKI TANEMURA² — ¹Olympus, Nagano, Japan — ²NIT, Nagoya, Japan

PO6.15 TUE 17:00

Surface Atomic Configurations and Electronic properties around Antiphase Domain Boundaries in Fe₃O₄/MgO(001) — •AKIRA IKEUCHI, SATOSHI HIURA, AGUS SUBAGYO, and KAZUHISA SUEOKA — Graduate School of Information Science and Technology, Hokkaido University, Kita 14, Nishi 9, Kita-ku, Sapporo 060-0814, Japan

PO6.16 TUE 17:00

Single-cell electroporation using a scanning ion conductance microscope — •FUTOSHI IWATA¹, KOJI YAMAZAKI¹, KAZUYA FUKUDA¹, and TATSUO USHIKI² — ¹Shizuoka University, Johoku, Hamamatsu 432-8561, Japan — ²Niigata University, asahimachidori, Niigata, 951-8122, Japan

PO6.17 TUE 17:00

Simultaneous measurement of Young's modulus and Poisson's ratio at microscale with multiple modes scanning microdeformation microscopy. — •THOMAS TRAVAILLOT¹, PASCAL VAIRAC², PATRICK DELOBELLE¹, and FABIEN AMIOT¹ — ¹FEMTO-ST Institute, Applied Mechanics Department, Besançon, France — ²FEMTO-ST Institute, Micro Nano Sciences and Systems Department, Besançon, France

PO6.18 TUE 17:00

Atomic Scale Surface Potential Measurement on TiO₂(110) Surface with Kelvin Probe Force Microscopy Using Ir-tip — •YANJUN LI, TAKESHI KAMIJO, LILI KOU, ZONGMIN MA, YOSHITAKA NAITOH, and YASUHIRO SUGAWARA — Department of Applied Physics, Graduate School of Engineering, Osaka University, 2-1 Yamada-oka, Suita, Osaka 565-0871, Japan

PO6.19 TUE 17:00

Design and Construction of a Sub-Kelvin High Magnetic Field Scanning Tunneling Microscope — •JEONGHOON KWON, MINJUN LEE, SUNGMIN KIM, BEOMYONG HWANG, SANGJUN JEON, JISUNG PARK, JINHWA HAN, MIN KANG, and YOUNG KUK — Department of Physics and Astronomy, Seoul National University, Seoul, Korea

PO6.20 TUE 17:00

Fundamental limits to force detection using Akiyama probe — •WOON SONG, DAL H. KIM, and BY-ONG C. PARK — Korea Research Institute of Standards and Science, Daejeon, Korea

PO6.21 TUE 17:00

Quantitative magnetic force microscopy of magnetic nanoparticles and magnetic thin films — •SIBYLLE SIEVERS¹, KAI-FELIX BRAUN¹, DIETMAR EBERBECK¹, STEFAN GUSTAFSSON², EVA OLSSON², SILVIA VOCK³, VOLKER NEU³, UWE SIEGNER¹, and HANS WERNER SCHUMACHER¹ — ¹Physikalisch-Technische Bundesanstalt, Braunschweig and Berlin, 38116 Braunschweig, Germany — ²Department of Applied Physics, Chalmers University of Technology, 41296 Gothenburg, Sweden — ³IFW Dresden, 01171 Dresden, Germany

PO6.22 TUE 17:00

Instruments for calibrating scanning probe and electronic microscopes at the nanoscale with sub-nanometric uncertainty. — •PETR LUSKINOVICH, VLADIMIR ZHABOTINSKIY, and IGOR LUBASHEVSKIY — Astrid-Lindgred-Str. 19, Munich D-81829 Germany

PO6.23 TUE 17:00

Quantitative Assessment of Sample Stiffness and Sliding Friction from Force Curves in Atomic Force Microscopy — JON PRATT¹, GORDON SHAW¹, LEE KUMANCHIK², •FREDERICK L HUTSON³, and NANCY A BURNHAM³ — ¹National Institute of Standards and Technology, Gaithersburg, Maryland 20899, USA — ²Department of Mechanical Engineering, U. Florida, Gainesville, Florida 32611, USA — ³Physics Department, Worcester Polytechnic Institute, Worcester, MA 01609 USA

PO6.24 TUE 17:00

Origin of Negative Differential Conductance observed on Cs/InAs(110) surfaces — •YASUSHI OKABE, AGUS SUBAGYO, and KAZUHISA SUEOKA — Graduate School of Information Science and Technology, Hokkaido University, Kita 14, Nishi 9, Kitaku, Sapporo 060-0814, Japan

PO6.25 TUE 17:00

The Influence of Relative Humidity on the AFM-tip Pull-off Force Measurement under Ambient Conditions — •MIROSLAV BARTOŠÍK^{1,2}, DAVID ŠKODA^{1,2}, ZUZANA BORTLOVÁ¹, RADEK KALOUSEK¹, and TOMÁŠ ŠIKOLA^{1,2} — ¹Institute of Physical Engineering, University of Technology Brno, Faculty of Mechanical Engineering, Technická 2, 616 69 Brno — ²CEITEC BUT, Brno University of Technology, Technická 2, 616 69 Brno, Czech Republic

PO6.26 TUE 17:00

Implementing a Setup to Detect Ballistic and Inelastic Transport Channels in an LT-STM Experiment — •MAREN C. COTTIN, JOHANNES SCHAFFERT, ROLF MÖLLER, and CHRISTIAN A. BOBISCH — Faculty of Physics, Center for Nanointegration Duisburg-Essen, Uni-

versity of Duisburg-Essen, 47048 Duisburg, Germany

PO6.27 TUE 17:00

Origins and Implications of Cantilever Curvature in SPM and Cantilever Sensor Systems Based on Optical Beam Deflection Readout Technique — ●KONRAD NIERADKA¹, DANIEL KOPIEC¹, PIOTR GRABIEC², PAWEŁ JANUS², and TEODOR GOTSZALK¹ — ¹Wrocław University of Technology, Wrocław, Poland — ²Institute of Electron Technology, Warsaw, Poland

PO6.28 TUE 17:00

Non-destructive, high-resolution characterization of heterogeneous materials: solutions for the nano- and millimeter range — ●UTE SCHMIDT, THOMAS DIENG, MAXIME TCHAYA, and OLAF HOLLRICHER — WITec GmbH

PO6.29 TUE 17:00

Theory of STM junctions for π -conjugated molecules on thin insulating films — ●ANDREA DONARINI, SANDRA SOBCZYK, and MILENA GRIFONI — University of Regensburg, 93040 Regensburg, Germany

PO6.30 TUE 17:00

Microslip in Scanning Force Microscopy: the case of the scanning Microdeformation Microscope — ●PASCAL VAIRAC¹, JULIAN LE ROUZIC², and BERNARD CRETIN¹ — ¹FEMTO-ST Institute, Besançon, France — ²Imperial college, London, England

PO6.31 TUE 17:00

Conductive Atomic Force Microscopy of delicate nanostructures — ●ALIAKSEI VETUSHKA¹, TAKASHI ITOH², ANTONÍN FEJFAR¹, MARTIN LEDINSKÝ¹, JIŘÍ STUHLÍK¹, and JAN KOČKA¹ — ¹Institute of Physics, Academy of Sciences of the Czech Republic, v.v.i., Cukrovarnická 10, 162 00 Prague 6, Czech Republic — ²Department of Electrical and Electronic Engineering, Gifu University, 1-1 Yanagido, Gifu 501-1193, Japan

PO6.32 TUE 17:00

Fiber-top Cantilever Probes for Scanning Probe Microscopy, Near Field Optical Microscopy and Nanoindentation — ●DHWAJAL CHAVAN¹, TOMEK VAN WATERING¹, GRZEGORZ GRUCA¹, MARTIN SLAMAN¹, KIER HEECK¹, DAVIDE IANNUZZI¹, and BRUNO TIRIBILLI² — ¹Vrije Universiteit Amsterdam, De Boelelaan 1081, 1081 HV Amsterdam, The Netherlands — ²Institute of Complex Systems, National Research

PO6.33 TUE 17:00

High Resolution Measurements at Nanoscale with Quadrature Phase Interferometry — ●FELIPE AGUILAR^{1,2} and LUDOVIC BELLON¹ — ¹Universite de Lyon, Ecole Normale Supérieure de Lyon, Lyon, France — ²Departamento de Física, Universidad de Santiago de Chile, Santiago, Chile

PO6.34 TUE 17:00

Modeling the Electronic Current in the Scanning Tunneling Microscopy Spectroscopy (STMS) — AMERICO CARNEVALI and ●VITOR BARANAUSKAS — Faculdade de Engenharia Elétrica e Computação, Departamento de Semicondutores, Instrumentos e Fotônica, Universidade Estadual de Campinas, UNICAMP, Av. Albert Einstein N.400, CEP 13 083-852 Campinas, São Paulo, Brasil

PO6.35 TUE 17:00

Vacuum Phonon Tunneling from STM Tip — ●IGOR ALTFEDER and ANDREY VOEVODIN — Air Force Research Laboratory, Dayton, USA

PO6.36 TUE 17:00

Near Field Investigations on Metallic Samples by Using a Novel Apertureless Near Field Optical Microscope — CATALIN STOICHITA¹, RADU HRISTU¹, STEFAN STANCIU¹, DENIS TRANCA¹, TOFAIL SYED², and ●GEORGE STANCIU¹ — ¹Center for Microscopy-Microanalysis and Information Processing, University Politehnica of Bucharest, Bucharest, Romania — ²University of Limerick, Materials and Surface Science Institute, Limerick, Ireland

PO6.37 TUE 17:00

Force Feedback Microscope: a new AFM without the jump to contact — ●LUCA COSTA¹, MARIO SILVEIRA RODRIGUES², JOEL CHEVRIER³, and FABIO COMIN¹ — ¹European Synchrotron Radiation Facility, Grenoble, France — ²FCUL Faculdade Ciências Universidade de Lisboa, Lisbon, Portugal — ³Institut Neel, Grenoble, France

PO6.38 TUE 17:00

Measurement of the magnetic interaction between an array of NdFeB micromagnets and a colloidal MFM probe — ●FLORENCE MARCHI, SVETLANA PONOMAREVA, ADEL LEMITI, GEORGETA CIUTA, DOMINIQUE GIVORD, FRÉDÉRIC DUMAS-BOUCHIAT, and NORA DEMPSEY — Institut Néel, CNRS-UJF, 25 rue des Martyrs BP 166 38042 Grenoble cedex 9

PO6.39 TUE 17:00

AFM and ICM Convergence Microscopy with Confocal Fluorescence Capability for Monitoring Membrane of A549 Cells — ●SANG-JOON CHO, GOO-EUN JUNG, and MYUNGHOON CHOI — Park Systems, Suwon, 443-270 Republic of Korea

PO6.40 TUE 17:00

Insight into the single-molecule behavior of kinesin Tea2 using optical tweezers technique — ●SIMONA PATRICHE¹, MIHAELA BANU¹, MARILEEN DOGTEROM², and BOGDAN EPUREANU³ — ¹Faculty of Mechanical Engineering, Department of Manufacturing Science, Robotics and Welding, *Dunarea de Jos* University of Galati, Galati, Romania — ²FOM Institute AMOLF, Amsterdam, The Netherlands — ³Department of Mechanical Engineering, University of Michigan, Ann Arbor, Michigan, USA

SO-5: STM and growth process on surfaces II

Chaired by M. Hanbücken, Marseille, FR

Time: Wednesday 8:30–10:15

Location: Amphi. Portier

Invited SO-5.1 WED 8:30
Designing Novel Magnetic Surface Alloys from First Principles — ●SHOBHANA NARASIMHAN — Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore 560064, India

SO-5.2 WED 9:00
Microstructure of NiPd and NiAu monolayer alloys electrodeposited on Au(111) by in-situ STM, molecular dynamic and Monte Carlo simulations — FLORIAN LE CADRE¹, ●FOUAD MAROUN¹, ALEXIS DAMIAN¹, ISABELLE BRAEMS², FABIENNE BERTHIER², PHILIPPE ALLONGUE¹, and CHRISTINE GOYHENEX³ — ¹CNRS-Ecole Polytechnique, Palaiseau, France — ²CNRS-Université Paris-Sud, Orsay, France — ³CNRS-IPCMS, Strasbourg, France

SO-5.3 WED 9:15
Study and applications of Rare-earths/Noble metal surface compounds — ●MAIDER ORMAZA¹, LUCIA VITALI², FREDERIK SCHILLER³, LAURA FERNÁNDEZ⁴, MARTINA CORSO⁵, and ENRIQUE ORTEGA^{1,3,4} — ¹Universidad del País Vasco (UPV/EHU), Dpto. Física Aplicada I, E-20018 San Sebastián, Spain — ²Ikerbasque, Basque Foundation for Science, E-48011 Bilbao, Spain — ³Centro Física de Materiales (CFM), E-20018 San Sebastián, Spain — ⁴Donostia International Physics Center (DIPC), E-20018 San Sebastián, Spain — ⁵Free University of Berlin, Institute of experimental Physics, D-1086 Berlin,

Germany

SO-5.4 WED 9:30
Growth of MgO and NaCl thin insulating films on iron surfaces — ●ANTONI TEKIEL, JESSICA TOPPLE, DONGPING LIU, HONG GUO, and PETER GRÜTTER — Department of Physics, McGill University, Montreal, QC, Canada

SO-5.5 WED 9:45
Scanning Tunneling Microscopy and Spectroscopy of Ti and TiO_x Nanoislands on Au(111) — ●PAOLO CARROZZO¹, CARLO S. CASARI^{1,2}, MATTEO PASSONI¹, CARLO E. BOTTANI^{1,2}, and ANDREA LI BASSI^{1,2} — ¹Dipartimento di Energia and NEMAS - Center for Nano-Engineered Materials and Surfaces, Politecnico di Milano, via Ponzio 34/3, 20133 Milano, (Italy) — ²CNST - Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Via Pascoli 70/3 I-20133 Milano (Italy)

SO-5.6 WED 10:00
Transient Mobility Mechanisms on Oxide Surfaces: Pd on MgO (100) — ●DAVID GAO¹, MATTHEW WATKINS², and ALEXANDER SHLUGER^{1,2,3} — ¹Department of Physics and Astronomy, University College London, Gower Street, London WC1E 6BT, UK — ²London Centre for Nanotechnology, University College London, 17-19 Gordon Street, London WC1, UK — ³WPI-AIMR, Tohoku University, Katahira, Aoba-ku, Sendai, Japan

NE-6: Single electron transport

Chaired by C. Brun, Paris, FR

Time: Wednesday 8:30–10:15

Location: Amphi. Richet

NE-6.1 WED 8:30
Evidence for single electron tunnel junction using gold nanoparticles — ●LOUIS CAILLARD^{1,2}, OLIVER SEITZ¹, PHILIPPE CAMPBELL¹, YVES CHABAL¹, and OLIVIER PLUCHERY² — ¹University of Texas at Dallas, Dallas, USA — ²Université Pierre et Marie Curie, Paris, France

NE-6.2 WED 8:45
Electron Transport in Supracrystals of Gold Nanocrystals — ●PENG YANG¹, IMAD ARFAOUI¹, TRISTAN CREN², NICOLAS GOUBET¹, and MARIE-PAULE PILENI¹ — ¹Laboratoire des Matériaux Mésoscopiques et Nanométriques, Université Pierre et Marie Curie and C. N. R. S., Paris, France — ²Institut des Nanosciences de Paris, Université Pierre et Marie Curie and C. N. R. S., Paris, France

NE-6.3 WED 9:00
Electron cotunneling transport in gold nanocrystal arrays — ●HELENA MOREIRA¹, QIAN YU¹, BRICE

NADAL¹, BRUNO BRESSON¹, MICHAEL ROSTICHER², NICOLAS LEQUEUX¹, ALEXANDRE ZIMMERS¹, and HERVE AUBIN¹ — ¹Laboratoire de Physique et d'Etude des Matériaux, UMR 8213, ESPCI-ParisTech-CNRS-UPMC, 10 rue Vauquelin, 75231 Paris, France — ²Laboratoire Pierre Aigrain, CNRS, ENS, UPMC, 24 rue Lhomond, 75231 Paris, France

NE-6.4 WED 9:15
Cotunneling enhanced signatures of molecular exchanged 2D nanoparticle networks — ●EDWIN DEVID¹, JEAN-FRANÇOIS DAYEN², VENKATA MUTTA², BERNARD DOUDIN², and SENSE JAN VAN DER MOLEN¹ — ¹Kamerlingh Onnes Laboratorium, Leiden University, Leiden, The Netherlands — ²Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), University of Strasbourg, Strasbourg, France

NE-6.5 WED 9:30
In-vacuo trapping of nanoparticles between nanogap spaced electrodes — ●QIAN YU¹, LIMIN CUI¹, CHRIS-

TIAN ULYSSE², ALEXANDRE ZIMMERS¹, and HERVÉ AUBIN¹ — ¹Laboratoire de Physique et d'Étude des Matériaux, UMR 8213, ESPCI-ParisTech-CNRS-UPMC, 10 rue Vauquelin, 75231 Paris, France — ²Laboratoire de Photonique et de Nanostructures, CNRS, Marcoussis, France

NE-6.6 WED 9:45

Electromigration of metallic nanostructures under ultra-high vacuum conditions — DOMINIK STÖFFLER¹, TIHOMIR TOMANIC¹, HILBERT V. LÖHNEYSSEN^{1,2}, and •REGINA HOFFMANN-VOGEL¹ — ¹Karlsruher Institut

für Technologie, Physikalisches Institut, 76131 Karlsruhe — ²Karlsruher Institut für Technologie, Institut für Festkörperphysik, 76021 Karlsruhe

NE-6.7 WED 10:00

Investigation of Nanogap Formation Process Using Field-Emission-Induced Electromigration with Alternating Current Bias — •MAMIKO YAGI, SHUNSUKE AKIMOTO, MITSUKI ITO, and JUN-ICHI SHIRAKASHI — Tokyo University of Agriculture and Technology, Tokyo, Japan

SC-4: Si nanowires I and GaN

Chaired by O. Persson, Lund, SE

Time: Wednesday 8:30–9:45

Location: Pavillon 1

SC-4.1 WED 8:30

Band-offset driven efficiency of the doping of SiGe core-shell nanowires — MICHELE AMATO^{1,2}, STEFANO OSSICINI^{3,4}, and •RICCARDO RURALI⁵ — ¹Laboratoire des Solides Irradiés, École Polytechnique, 91128 Palaiseau, France — ²Université Paris Sud, Laboratoire de Physiques des Solides, 91405 Orsay, France — ³Dipartimento di Scienze e Metodi dell'Ingegneria, Università di Modena e Reggio Emilia, Via Amendola 2 Pad. Morselli, I-42100 Reggio Emilia, Italy — ⁴Centro Interdepartmentale EnTech, Università di Modena e Reggio Emilia, Via Amendola 2 Pad. Morselli, I-42100 Reggio Emilia, Italy — ⁵Institut de Ciència de Materials de Barcelona (CSIC), Campus de la UAB, 08193 Bellaterra, Spain

SC-4.2 WED 8:45

In situ X-ray scattering study of Si nanowires during growth by UHV-CVD — VALENTINA CANTELLI¹, •TAO ZHOU¹, OLIVIER ULRICH¹, OLIVIER GEAYMOND², NILS BLANC¹, and GILLES RENAUD¹ — ¹CEA-Grenoble/DSM/INAC/SP2M/NRS, 17, rue des Martyrs 38054 Grenoble cedex 9, France — ²Institut Neel, 25 avenue des Martyrs batiment F BP 166 38042 Grenoble cedex 9, France

SC-4.3 WED 9:00

Silicon Nanowire Array: Morphology, Optical Properties and Application on Silicon/Organic Heterojunction Solar Cell — •HONG-JHANG SYU¹, SHU-CHIA

SHIU¹, YUNG-JR HUNG², SAN-LIANG LEE², and CHING-FUH LIN^{1,3,4} — ¹Graduate Institute of Photonics and Optoelectronics, National Taiwan University, Taipei, Taiwan — ²Department of Electronic Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan — ³Graduate Institute of Electronic Engineering, National Taiwan University, Taipei, Taiwan — ⁴Department of Electrical Engineering, National Taiwan University, Taipei, Taiwan

SC-4.4 WED 9:15

Chemical Sensing With Vertical Silicon Nanowire Arrays — •PEHR PEHRSSON, CHRISTOPHER FIELD, HYUN JIN IN, CY TAMANAHA, and SUSAN ROSE-PEHRSSON — Chemistry Division, Naval Research Laboratory, Washington DC, USA

SC-4.5 WED 9:30

Structural property of c-, m-, a-, and (20.1)-plane GaN substrates obtained by ammonothermal method — •JAROSŁAW SERAFIŃCZUK¹, DANIEL KOPIEC¹, MAGDALENA MOCZAŁA¹, ROBERT KUDRAWIEC², ROBERT KUCHARSKI³, MARCIN ZAJAC³, JAN MISIEWICZ², and TEODOR GOTSZALK¹ — ¹Faculty of Microsystem Electronics and Photonics, Wrocław University of Technology, Janiszewskiego 11/17, 50-372 Wrocław, Poland — ²Institute of Physics, Wrocław University of Technology, Wybrzeże Wyspiańskiego 27, 50-370 Wrocław, Poland — ³AMMONO S.A. Czerwonego Krzyża 2/31, 00-377 Warsaw, Poland

CC-2: Model catalytic systems and surface reactivity I

Chaired by W. Widdra, Halle, DE

Time: Wednesday 8:30–10:15

Location: Pavillon 3

CC-2.1 WED 8:30

Surface-Assisted Polymerization of Some Organic Acceptors of the TCNQ Family — •JOSÉ M. GALLEGO^{1,2}, CHRISTIAN URBAN³, YANG WANG³, JONATHAN RODRÍGUEZ-FERNÁNDEZ³, LUIGI TERRACCIANO³, RAÚL GARCÍA⁴, MANUEL ALCAMÍ³, MARÍA ÁNGELES HERRANZ⁴, NAZARIO MARTÍN^{2,4}, FER-

NANDO MARTÍN^{2,3}, ROBERTO OTERO^{2,3}, and RODOLFO MIRANDA^{2,3} — ¹Instituto de Ciencia de Materiales de Madrid - CSIC, Madrid, Spain — ²Instituto Madrileño de Estudios Avanzados en Nanociencia (IMDEA-Nanociencia), Madrid, Spain — ³Universidad Autónoma de Madrid, Madrid, Spain. — ⁴Universidad Complutense de Madrid, Madrid, Spain

CC-2.2 WED 8:45

Oxidation Mechanisms in Iron Oxide Ultrathin Films — ●MATTEO MONTI¹, BENITO SANTOS², ARANTZAZU MASCARAQUE³, OSCAR RODRÍGUEZ DE LA FUENTE³, TEVIK O. MENTES², MIGUEL A. NIÑO⁴, ANDREA LOCATELLI², KEVIN F. MCCARTY⁵, JOSÉ F. MARCO¹, and JUAN DE LA FIGUERA¹ — ¹Instituto de Química Física "Rocasolano", CSIC, 28006 Madrid, Spain — ²Sincrotrone Trieste S.C.p.A, Basovizza, Trieste 34149, Italy — ³Universidad Complutense de Madrid, 28040 Madrid, Spain — ⁴Instituto Madrileño de Estudios Avanzados en Nanociencia (IMDEA), Madrid 28049, Spain — ⁵Sandia National Laboratories, Livermore, CA 94550, USA

CC-2.3 WED 9:00

Sub-molecularly Resolved Stereospecific Studies of Chiral Induction in a Room Temperature Catalytic Process — ●GUILLAUME GOUBERT¹, VINCENT DEMERS-CARPENTIER¹, ANTON HAVELUND RASMUSSEN², BJORK HAMMER², and PETER MCBREEN¹ — ¹Université Laval, Québec, Qc, Canada — ²Aarhus University, Aarhus, Denmark

CC-2.4 WED 9:15

H-atom relay reactions in real space — ●TAKASHI KUMAGAI^{1,6}, AKITOSHI SHIOTARI¹, HIROSHI OKUYAMA¹, SHINICHIRO HATTA^{1,2}, TETSUYA ARUGA^{1,2}, IKUTARO HAMADA³, THOMAS FREDERIKSEN^{4,5}, and HIROMU UEBA⁵ — ¹Kyoto University — ²JST-CREST — ³Tohoku University — ⁴Donostia International Physics Center — ⁵Toyama

University — ⁶Current affiliation: Fritz-Haber Institute of the Max-Planck Society

CC-2.5 WED 9:30

Theory and simulation of molecular adsorbate dynamics induced by inelastic tunneling electrons — ●THOMAS FREDERIKSEN^{1,2} and HIROMU UEBA² — ¹Donostia International Physics Center (DIPC), 20018 San Sebastián, Spain — ²Division of Nano and New Functional Materials, Graduate School of Science and Engineering, University of Toyama, Toyama 930-8555, Japan

CC-2.6 WED 9:45

Single Atom Alloys as a Strategy for Selective Heterogeneous Hydrogenations — GEORGIOS KYRIAKOU¹, MATTHEW BOUCHER², APRIL JEWELL¹, EMILY LEWIS¹, TIMOTHY LAWTON¹, ASHLEIGH BABER¹, HEATHER TIERNEY¹, MARIA FLYTZANI-STEPHANOPOULOS², and ●CHARLES SYKES¹ — ¹Department of Chemistry, Tufts University, 62 Talbot Ave, Medford, Massachusetts 02155, USA — ²Department of Chemical and Biological Engineering, Tufts University, 4 Colby Street, Medford, Massachusetts 02144, USA

CC-2.7 WED 10:00

Single-molecule reaction of water on an ultrathin MgO film — JAEHOON JUNG¹, HYUNG-JOON SHIN^{1,2}, MAKI KAWAI³, and ●YOUSOO KIM¹ — ¹RIKEN, Wako, Japan — ²UNIST, Ulsan, Korea — ³The University of Tokyo, Kashiwa, Japan

NB-3: Mechanics of cells

Chaired by R.H.Y. Lim, Basel, CH

Time: Wednesday 8:30–9:45

Location: Pavillon 4

NB-3.1 WED 8:30

Effect of Mechanically Deformable Nano-Structured Elastic Membrane Surfaces on Adhesion and Proliferation of Osteoblast Cells — ●GEORGE TOWORFE¹, RUSSELL COMPOSTO², and PAUL DUCHEYNE³ — ¹Flowers School of Technology and Management, Kusterdingen, Germany — ²University of Pennsylvania, Philadelphia, USA — ³University of Pennsylvania, Philadelphia, USA

NB-3.2 WED 8:45

Investigation of mechanical properties of living cells by combined optical and atomic force microscopies — ●ALEXANDRE BERQUAND¹, ANDREAS HOLLOSCHI², HELLA-MONKA KUHN², MATHIAS HAFNER², and PETRA KIOSCHIS² — ¹Bruker Nano GmbH Dynamostrasse 19

68165 Mannheim Germany — ²Institute of Applied Science Paul-Wittsack str. 10 68163 Mannheim Germany

Invited

NB-3.3 WED 9:00

Imaging and Quantifying Molecular Mechanics and Mechanisms that Guide Cellular Processes — ●DANIEL MULLER — ETH Zurich, Biosystems Science and Engineering, CH-4057 Basel, Switzerland

NB-3.4 WED 9:30

Characterization of Nanoscale Biomechanical Properties of Streptococcus mutans Biofilm with Atomic Force Microscopy — ●KUN-LIN LI, BERNARD HAOCHEH LIU, WEN-KE HUANG, and JIUNN-DER LIAO — National Cheng Kung University, Tainan, Taiwan (ROC)

GT-4: Electronic properties of graphene

Chaired by C. Schoenenberger, Basel, CH

Time: Wednesday 8:30–10:15

Location: Amphi. Pasquier

Invited

GT-4.1 WED 8:30

Exploring the Two-dimensional Physics of Graphene

with Local Probes — ●JOSEPH A. STROSCIO — Center for Nanoscale Science and Technology, NIST Gaithersburg,

MD, USA 20899

GT-4.2 WED 9:00

Linear band dispersion in multilayer epitaxial graphene grown on the SiC(000*1) C face — JEREMY HICKS¹, MIKE SPRINKLE¹, KRISTIN SHEPPERD¹, F WANG¹, ANTONIO TEJEDA^{2,4}, •AMINA TALEB-IBRAHIMI^{3,4}, PATRICK LE FÈVRE⁴, FRANÇOIS BERTRAN⁴, WALT DE HEER¹, CLAIRE BERGER^{1,5}, and EDWARD CONRAD¹ — ¹Georgia Institute of Technology, Atlanta, Georgia 30332-0430 USA — ²Institut Jean Lamour, CNRS-Université de Nancy-UPV-Metz, 54506 Vandoeuvre Les Nancy, France — ³URI CNRS/ Synchrotron SOLEIL, L'Orme des Merisiers, Saint-Aubin, 91192 Gif/Yvette, France — ⁴Synchrotron SOLEIL, L'Orme des Merisiers, Saint-Aubin, 91192 Gif/Yvette, France — ⁵CNRS/ Institut néel, BP 166, 38042, Grenoble, France

GT-4.3 WED 9:15

Role of Pseudospin in Quasiparticle Interferences in epitaxial graphene on SiC(0001) — •PIERRE MALLET¹, IVAN BRIHUEGA^{2,3}, SANGITA BOSE^{2,4}, MIGUEL MORENO UGEDA³, JOSE MARIA GOMEZ RODRIGUEZ³, KLAUS KERN^{2,5}, and JEAN-YVES VEUILLEN¹ — ¹Institut Néel, CNRS-UJF, Boîte Postale 166, 38042 Grenoble, France — ²Max-Planck-Institut für Festkörperforschung, Heisenbergstrasse 1, D-70569 Stuttgart, Germany — ³Departamento de Fisica de la Materia Condensada, Universidad Autonoma de Madrid, E-28049, Madrid Spain — ⁴Center for Excellence in Basic Sciences, University of Mumbai, Vidhyanagari Campus, Mumbai-400098, India — ⁵Institut de Physique des Nanostructures, Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne, Switzerland

GT-4.4 WED 9:30

Charge Density Waves on the Graphene Sheets of the Heavily-Doped Superconductor Graphitic

Intercalate CaC₆ — KAVEH C. RAHNEJAT^{1,2}, CHRIS A. HOWARD^{1,3}, NICK E. SHUTTLEWORTH^{1,2}, STEVEN R. SCHOFIELD^{1,2}, KATSUYA IWAYA⁴, •CYRUS F. HIRJIBEHEDIN^{1,2,5}, CHRISTOPH RENNER⁶, GABRIEL AEPPLI^{1,2}, and MARK ELLERBY^{1,2} — ¹London Centre for Nanotechnology, University College London, London (UCL), UK — ²Department of Physics and Astronomy, University College London (UCL), London, UK — ³Department of Physics, Royal Holloway, University of London, Egham, UK — ⁴World Premier International Research Center, Advanced Institute for Materials Research, Tohoku University, Sendai, Japan — ⁵Department of Chemistry, University College London (UCL), London, UK — ⁶Department of Condensed Matter Physics, University of Geneva, Geneva, Switzerland

GT-4.5 WED 9:45

Electron-Electron Interactions and the Effect of Residual Disorder in Single Layer Graphene on Boron-Nitride Substrates — •JUNGSEOK CHAE^{1,2}, SUYONG JUNG^{1,2}, ANDREA YOUNG³, CORY DEAN^{4,5}, LEI WANG⁵, JAMES C. HONE⁵, KEN L. SHEPARD⁴, PHILIP KIM³, NIKOLAI B. ZHITENEV¹, and JOSEPH A. STROSCIO¹ — ¹Center for Nanoscale Science and Technology, NIST, Gaithersburg, MD — ²Maryland NanoCenter, UMD, College Park, MD — ³Department of Physics, Columbia University, New York, NY — ⁴Department of Electrical Engineering, Columbia University, New York, NY — ⁵Department of Mechanical Engineering, Columbia University, New York, NY

GT-4.6 WED 10:00

Direct Observation of Localized States at Graphene Edges — •HONGWOO BAEK¹, JEONGHOON HA^{1,2}, BEOMYONG HWANG¹, JEONGHOON KWON¹, JINHWA HAN¹, JOSEPH STROSCIO², and YOUNG KUK¹ — ¹Seoul National University, Seoul, Korea — ²National Institute of Standards and Technology, Gaithersburg, USA

SP-3: Combined characterizations using different SPM technics

Chaired by D. Tonneau, Marseille, FR

Time: Wednesday 8:30–10:15

Location: Grand Amphi.

Invited SP-3.1 WED 8:30
Atomic-Scale Functional Imaging in Three Dimensions by Combined Scanning Tunneling and Atomic Force Microscopy — •UDO D. SCHWARZ¹, MEHMET Z. BAYKARA¹, HARRY MÖNIG¹, TODD C. SCHWENDEMANN^{1,2}, MILICA TODOROVIC³, RUBEN PEREZ³, and ERIC I. ALTMAN¹ — ¹Yale University, New Haven, USA — ²Southern Connecticut State University, New Haven, USA — ³Universidad Autonoma de Madrid, Madrid, Spain

SP-3.2 WED 9:00

Quantum degeneracy revealed by the relation between the tunneling current and the chemical force in atomic point contacts. — •PAVEL JELINEK¹, MARTIN ONDRACEK¹, and FERNANDO FLORES² — ¹Institute

of Physics of the CAS, Cukrovarnicka 10, Prague 6, Czech Republic — ²Universidad Autonoma de Madrid, Campus Cantoblanco, Madrid, Spain

SP-3.3 WED 9:15

DFT analysis of combined 3D NC-AFM and STM imaging of Cu(100)-O oxide surface — •MILICA TODOROVIC¹, MEHMET Z. BAYKARA², HARRY MÖNIG³, TODD C. SCHWENDEMANN^{2,4}, ERIC I. ALTMAN², UDO D. SCHWARZ², and RUBÉN PÉREZ¹ — ¹Universidad Autónoma de Madrid, Madrid, Spain — ²Yale University, New Haven, USA — ³Westfälische Wilhelms-Universität Münster, Münster, Germany — ⁴Southern Connecticut State University, New Haven, USA

SP-3.4 WED 9:30

AM-FM and Loss Tangent Imaging - Two New Tools for Quantitative Nanomechanical Properties — ●ROGER PROKSCH, IRÈNE REVENKO, SOPHIA HOHLBAUCH, JASON CLEVELAND, NICK GEISSE, AMIR MOSHAR, JASON BEMIS, and CLINT CALLAHAN — Asylum Research, Santa Barbara, California, USA

Invited

SP-3.5 WED 9:45

A Robust Nitrogen Stabilized Single Atom Tip: A Highly Coherent Source for Point Projection Holographic Microscopy — ●ROBERT WOLKOW, JOSH MUTUS, JASON PITTERS, RADOVAN URBAN, MARK SALOMONS, and MARTIN CLOUTIER — National Institute for Nanotechnology, Edmonton, Alberta, Canada

SA-3: Patterns - self-assemblies and interactions I

Chaired by L. Nony, Marseille, FR

Time: Wednesday 8:30–10:15

Location: Salle du Conseil

SA-3.1 WED 8:30

Templating Self-assembled Monolayers on a Nanopatterned Au(111) Surface: Elaboration and Electronic Properties of Nano-islands of Aromatic Molecules — ZHENGRAN QIN¹, ROMAIN BREITWIESER², MAXENCE MARSAULT², ●NICOLAS BATTAGLINI¹, JÉRÔME LAGOUTE², VINCENT REPAIN², PAOLO COMPIGLIO², CYRIL CHACON-CARILLO², SAMIA ZRIG¹, SYLVIE ROUSSET², and PHILIPPE LANG¹ — ¹Univ. Paris Diderot, Sorbonne Paris Cité, ITODYS, UMR 7086 CNRS, 15 rue J-A. de Baïf, 75205 Paris Cedex 13, France — ²Univ. Paris Diderot, Sorbonne Paris Cité, MPQ, UMR 7162 CNRS, 10 rue A. Domon et L. Duquet, 75205 Paris Cedex 13, France

SA-3.2 WED 8:45

Molecular polymerisation on stepped surfaces — ●ALEX SAYWELL¹, JUTTA SCHWARZ², STEFAN HECHT², and LEONHARD GRILL¹ — ¹Department of Physical Chemistry, Fritz-Haber-Institute of the Max-Planck Society, Berlin, Germany — ²Department of Chemistry, Humboldt University, Berlin, Germany

SA-3.3 WED 9:00

Self-Assembled Monolayers over Ferromagnetic Electrodes for Molecular Spintronics — ●SERGIO TATAY, MARTA GALBIATI, CLÉMENT BARRAUD, RICHARD MATTANA, PIERRE SENEOR, KARIM BOUZEHOUE, CYRILE DERANLOT, ERIC JACQUET, ALBERT FERT, and FRÉDÉRIC PETROFF — Unité Mixte de Physique CNRS/THALES (UMR137) and Université de Paris-Sud, 91405 Orsay, France

SA-3.4 WED 9:15

STM Guided Molecular Design of Chiral Binding Sites on a Surface: Prochiral to Chiral Molecular Assembly — ●PETER MCBREEN¹, VINCENT DEMERS-CARPENTIER¹, JEAN-CHRISTIAN LEMAY¹, LARA FERRIGHI², ANTON HAVELUND RASMUSSEN², BJØRK HAMMER², GUILLAUME GOUBERT¹, FEDERICO MASINI¹, and YI DONG¹ — ¹Département de chimie, Université Laval, Québec (Qc), Canada, G1V 0A6 — ²iNANO and Department of Physics and Astronomy, Aarhus University,

8000 Aarhus C, Denmark

SA-3.5 WED 9:30

Self-Assembly of Electron Acceptor TCNQ-Class Molecules on nanostructured Graphene — ●FLAVIO PENDOLINO¹, FABIAN CALLEJA², SARA BARJA^{1,2}, RAÚL GARCÍA³, MARIA ÁNGELES HERRANZ³, NAZARIO MARTÍN^{2,3}, AMADEO L. VAZQUEZ DE PARGA^{1,2}, and RODOLFO MIRANDA^{1,2} — ¹Departamento de Física de la Materia Condensada, Universidad Autónoma de Madrid, Cantoblanco 28049, Madrid, Spain — ²Instituto Madrileño de Estudios Avanzados en Nanociencia (IMDEA-Nanociencia), Cantoblanco 28049, Madrid, Spain — ³Dep. Química Orgánica, Universidad Complutense de Madrid, Madrid 28049, Spain

SA-3.6 WED 9:45

Towards Controlling Chirality in Supramolecular Structures: Bottom-up Nanostructure Formation and Spontaneous Resolution of Cyano Functionalized Helicene[7] — ●ANELIJA SHCHYRBA¹, TONI IVAS¹, SYLWIA NOWAKOWSKA¹, SERPIL BOZ¹, MEIKE STÖHR², MICHAEL SCHÄR³, MANH-THUONG NGUYEN⁴, CARLO A. PIGNEDOLI⁵, DANIELE PASSERONE⁵, W. BERND SCHWEIZER³, CARLO THILGEN³, FRANÇOIS DIEDERICH³, and THOMAS A. JUNG⁶ — ¹University of Basel, Basel, Switzerland — ²University of Groningen, Groningen, The Netherlands — ³ETH Zurich, Zurich, Switzerland — ⁴International Centre for Theoretical Physics, Trieste, Italy — ⁵Empa, Swiss Federal Laboratories for Materials Science and Technology, Dübendorf, Switzerland — ⁶Paul Scherrer Institute, Villigen, Switzerland

SA-3.7 WED 10:00

Hexagonal boron nitride on Cu(111): A template for molecular self-assembly — ●WILLI AUWÄRTER¹, SUSHOBHAN JOSHI¹, FELIX BISCHOFF¹, DAVID ECIJA¹, SARANYAN VIJAYARAGHAVAN¹, KNUD SEUFERT¹, HERMANN SACHDEV², and JOHANNES V. BARTH¹ — ¹Physik Department E20, Technische Universität München, D-85748 Garching, Germany — ²Max Planck Institut für Polymerforschung, D-55128 Mainz, Germany

54: Coffee Break

Time: Wednesday 10:15–10:30

Location: Coffee Break

Coffee Break

SO-6: Nanopatterning

Chaired by G. Prévot, Paris, FR

Time: Wednesday 10:45–12:15

Location: Amphi. Portier

SO-6.1 WED 10:45

Block Copolymer Thin Films as Nano-Patterns for Confined Selective Layering of Polyelectrolytes — ●MEIRAV BEN-LULU¹, AXEL H. E. MÜLLER², and ROY SHENHAR¹ — ¹The Institute of Chemistry and the Center for Nanoscience and Nanotechnology, The Hebrew University of Jerusalem, Jerusalem 91904, Israel. — ²Makromolekulare Chemie II, Universität Bayreuth, Bayreuth 95440, Germany.

SO-6.2 WED 11:00

Multifunctional Organic- Inorganic Hybrid Structures — ●NAUREEN AKHTAR, THOMAS PALSTRA, and PETERA RUDOLF — Zernike Institute for Advanced Materials, University of Groningen, Groningen, The Netherlands

SO-6.3 WED 11:15

A novel self-ordered sub-10nm nanopore template for nanotechnology — ERIC MOYEN¹, LAURENCE MASSON¹, ●LIONEL SANTINACCI¹, WULF WULFHEKEL², and MARGRIT HANBÜCKEN¹ — ¹CNRS, UMR 7325, 13288, Marseille, France Aix-Marseille Univ., CINaM, 13288, Marseille, France — ²Physikalisches Institut, Karlsruhe Institute of Technology, Wolfgang Gade Str. 1 - 76131 Karlsruhe, Germany

SO-6.4 WED 11:30

Truly two-dimensional colloidal nanocrystals — ●CHRISTIAN KLINKE — Institute of Physical Chemistry,

University of Hamburg, Grindelallee 117, 20146 Hamburg, Germany

SO-6.5 WED 11:45

Crystalline Inverted Membranes Grown on Surfaces by Electrospray Ion Beam Deposition of Cluster Beams in Vacuum — ●STEPHAN RAUSCHENBACH¹, GORDON RINKE¹, NIKOLA MALINOWSKI¹, R. THOMAS WEITZ¹, ROBERT DINNEBIER¹, NICHIA THONTASEN¹, ZHI-TAO DENG¹, THERESA LUTZ¹, PEDRO MARTINS DE ALMEIDA ROLLO¹, GIOVANNI COSTANTINI^{1,4}, LUDGER HARNAU^{2,3}, and KLAUS KERN^{1,5} — ¹Max-Planck-Institute for Solid State Research, Nanoscale Science Department, Heisenbergstr. 1, DE 70569 Stuttgart, Germany — ²Max-Planck-Institut für Intelligente Systeme, Heisenbergstr. 3, DE 70569 Stuttgart, Germany — ³Institut für Theoretische und Angewandte Physik, Universität Stuttgart, Pfaffenwaldring 57, DE 70569 Stuttgart, Germany — ⁴Department of Chemistry, University of Warwick, Gibbet Hill Road, CV4 7AL Coventry, United Kingdom — ⁵Institut de Physique de la Matière Condensée, Ecole Polytechnique Fédérale de Lausanne, CH 1015 Lausanne, Switzerland

SO-6.6 WED 12:00

Unexpected Morphological Gold-Pattern Formation on TiO₂(110) by UV Light Irradiation — ●SHUSHI SUZUKI, DAISUKE SUGIOKA, and TSUKASA TORIMOTO — Nagoya University, Nagoya, Japan

NE-7: Electronic properties of adsorbed molecules

Chaired by G. Meyer, Rueschlikon, CH

Time: Wednesday 10:45–12:15

Location: Amphi. Richet

NE-7.1 WED 10:45

Alteration of scanning-tunnelling-spectroscopy images of molecular orbitals as a probe of electron correlation — DIMITRIOS TOROZ, ●MASSIMO RONTANI, and STEFANO CORNI — CNR-NANO Research Center S3, Via Campi 213a, 41125 Modena, Italy

NE-7.2 WED 11:00

Orientation-dependent electronic structure of a molecule investigated by STM and DFT with dispersion corrections — ●MAYA LUKAS¹, KARIN FINK¹, KERRIN DÖSSEL¹, ALEXANDRINA SCHRAMM¹, CHRISTOPHE STROH¹, OLAF FUHR^{1,2}, MARCEL MAYOR^{1,2}, and HILBERT VON LÖHNEYSEN^{1,3} — ¹Karlsruhe Institute of Technology (KIT), Institute of Nanotechnology, D-76021 Karlsruhe, Germany — ²University of Basel, Department of Chemistry, CH-4056 Basel, Switzerland — ³Karlsruhe Institute of Technology (KIT), Physics Institute and Institute for Solid

State Physics, D-76049 Karlsruhe, Germany

NE-7.3 WED 11:15

Electron transport studies through single octanethiol molecules — ●RENÉ HEIMBUCH¹, AVIJIT KUMAR¹, HAIRONG WU^{1,2}, PETER SCHÖN², G. JULIUS VANCOSO², BENE POELSEMA¹, and HAROLD J.W. ZANDVLIET¹ — ¹Physics of Interfaces and Nanomaterials, MESA+ Institute for Nanotechnology, P. O. Box 217, 7500 AE Enschede, The Netherlands — ²Materials Science and Technology of Polymers, MESA+ Institute for Nanotechnology, P. O. Box 217, 7500 AE Enschede, The Netherlands

NE-7.4 WED 11:30

STM imagery and DFT calculations of C₆₀ fullerene adsorption on the 6H-SiC(0001)-3x3 surface — ●TAMARA OVRAMENKO¹, ANDREW MAYNE¹, GÉRALD DUJARDIN¹, FAUSTINE SPILLEBOUT², PHILIPPE SONNET²,

LOUISE STAUFFER², FRANÇOIS BOCQUET³, and JEAN-MARC THEMLIN³ — ¹Institut des Sciences Moléculaires d'Orsay, CNRS, Université Paris Sud 11, Orsay, France — ²Institut de Science des Matériaux de Mulhouse, CNRS LRC 7228, Université de Haute Alsace, Mulhouse, France — ³Institut Matériaux Microélectronique Nanosciences de Provence, CNRS, Univ Aix-Marseille, Marseille, France

NE-7.5 WED 11:45

Finite height potential wells formed by chlorine adsorption on Au(111) surface — •VLADIMIR CERCHEZ^{1,2,3}, BERTRAND KIERREN¹, CHRISTOPHE CHATELAIN¹, CLEMENT DIDOT¹, YANNICK FAGOT-REVURAT¹, DANIEL MALTERRE¹, BORIS

ANDRYUSHECHKIN², and KONSTANTIN ELTSOV² — ¹Institut Jean Lamour, Nancy, France — ²A.M.Prokhorov General Physics Institute of Russian Academy of Sciences, Moscow, Russia — ³Institut des Nanosciences de Paris, Paris, France

NE-7.6 WED 12:00

NC-AFM Study of the Adsorption of two Triphenylene Derivatives on KBr(001) — ANTOINE HINAUT, ADELIN PUJOL, FLORIAN CHAUMETON, GRANT AIVAZIAN, KADOUR LEKHAL, SONIA BATAILLÉ, SÉBASTIEN GAUTHIER, ANDRÉ GOURDON, and •DAVID MARTROU — CEMES GNS C.N.R.S, Toulouse, France

NM-3: Magnetism and mechanics

Chaired by Y. Sugawara, Osaka, JP

Time: Wednesday 10:45–12:15

Location: Pavillon 1

NM-3.1 WED 10:45

Magnetic field-induced supracolloidal assemblies for biophysical applications — •JEAN-FRANÇOIS BERRET — Laboratoire Matière et Systèmes Complexes UMR 7057 Université Paris-Diderot/CNRS Batiment Condorcet 10 rue Alice Domon et Léonie Duquet F-75205 Paris Cedex 13

NM-3.2 WED 11:00

Spin Friction Observed on the Atomic Scale — •BORIS WOLTER¹, YASUO YOSHIDA^{1,2}, ANDRÉ KUBETZKA¹, SAW-WAI HLA³, KIRSTEN VON BERGMANN¹, and ROLAND WIESENDANGER¹ — ¹Institute of Applied Physics, University of Hamburg, Germany — ²Present address: Institute for Solid State Physics, University of Tokyo, Kashiwa, Japan — ³Nanoscale & Quantum Phenomena Institute, Physics & Astronomy Department, Ohio University, Athens, USA

NM-3.3 WED 11:15

Study of molecular shapes by ultra-fast shape recognition technique — •SAN KIONG LAI^{1,2} and PO JEN HSU^{1,2} — ¹Complex Liquids Laboratory, Department of Physics, National Central University, Chungli 320, Taiwan — ²Molecular Science and Technology Program, Taiwan International Graduate Program, Academia Sinica, Taipei

115, Taiwan

NM-3.4 WED 11:30

Correlations between Adhesion and Fractal Parameters of Microsystem Surfaces — •NANCY A BURNHAM¹, DELI LIU¹, and JACK MARTIN² — ¹Physics Department, Worcester Polytechnic Institute, Worcester MA 01609 USA — ²Micromachined Products Division, Analog Devices, Inc., Wilmington MA 01887 USA

NM-3.5 WED 11:45

Is Small Perfect ? When Shape and Size Matter — PEDRO AUTRETO¹, MAUREEN LAGOS^{1,2}, FERNANDO SATO³, VARLEI RODRIGUES¹, DANIEL UGARTE¹, and •DOUGLAS GALVAO¹ — ¹State University of Campinas, Campinas, Brazil — ²LNLS, Campinas, Brazil — ³Federal University of Juiz de Fora, Juiz de Fora, Brazil

NM-3.6 WED 12:00

Dissolution of Minerals Observed and Modified by Atomic Force Microscopy — •JEAN COLOMBANI, AGNÈS PIEDNOIR, and EDGAR A. PACHON-RODRIGUEZ — Laboratoire de Physique de la Matière Condensée et Nanostructures, Université Claude Bernard Lyon 1 / CNRS, Villeurbanne, France

CC-3: Model catalytic systems and surface reactivity II

Chaired by Y. Borenzstein, Paris, FR

Time: Wednesday 10:45–12:15

Location: Pavillon 3

CC-3.1 WED 10:45

Separated Pd sites on the low indexed surfaces of PdGa catalysts — •JAN PRINZ^{1,5}, ROBERTO GASPARI¹, MARC ARMBRÜSTER², JOCHEN VOGT³, PETER GILLE⁴, HARALD BRUNE⁵, and ROLAND WIDMER¹ — ¹Empa, Swiss Federal Laboratories for Materials Science and Technology, nanotech@surfaces, 8600 Dübendorf, Switzerland — ²Ecole Polytechnique Fédéral de Lausanne (EPFL),

Institute of Condensed Matter Physics (ICMP), 1015 Lausanne, Switzerland — ³Otto-von-Guericke-Universität, Chemisches Institut, 39106 Magdeburg, Germany — ⁴Ludwig-Maximilians-Universität, Dept. für Geo- und Umweltwissenschaften, 80333 München, Germany — ⁵Ecole Polytechnique Fédérale de Lausanne (EPFL), Institute of Condensed Matter Physics (ICMP), 1015 Lausanne, Switzerland

CC-3.2 WED 11:00

Reactivity vs. Morphology - Steps on TiO₂(110) — ●FELIX RIEBOLDT, RALF BECHSTEIN, STEFAN WENDT, ERIK LAEGSGAARD, and FLEMMING BESENBACHER — Interdisciplinary Nanoscience Center, Aarhus University, DK-8000 Aarhus, Denmark

Invited

CC-3.3 WED 11:15

Catalytic model systems studied by high-resolution, video-rate Scanning Tunneling Microscopy — ●FLEMMING BESENBACHER — Interdisciplinary Nanoscience Center (iNANO) and Department of Physics and Astronomy, Aarhus University, Ny Munkegade 118, 8000 Aarhus C, Denmark

CC-3.4 WED 11:45

Direct Observation of the Linear Combination of Molecular Orbitals Model in Real Space by Combined Scanning Tunneling Microscopy and Atomic

Force Microscopy — FLORIAN ALBRECHT¹, MATHIAS NEU¹, CHRISTINA QUEST¹, ●INGMAR SWART^{1,2}, and JASCHA REPP¹ — ¹University of Regensburg, Regensburg, Germany — ²Utrecht University, Utrecht, the Netherlands

CC-3.5 WED 12:00

Photochemistry on Nanoparticles: A Detailed Investigation of an Exemplary System — ●DIETRICH MENZEL^{1,2}, KAZUO WATANABE^{1,3}, KI HYUN KIM^{1,4}, DANIEL MULUGETA^{1,5}, and HANS-JOACHIM FREUND¹ — ¹Fritz-Haber-Institut der Max-Planck-Gesellschaft, Faradayweg 4-6, 14195 Berlin, Germany — ²Physik-Department E20, Techn. Univ. München, 85748 Garching, Germany — ³Dept. of Chemistry, Tokyo University of Science, Shinjuku-ku, Tokyo 162-8601, Japan — ⁴Korea Photonics Technology Institute, Buk-Gu, Gwangju 500-779, Republic of Korea — ⁵Dept. of Physics and Astronomy, University of Tennessee, Knoxville, TN 37996, USA

SN-5: Spin dependent phenomena

Chaired by R. Wiesendanger, Hamburg, DE

Time: Wednesday 10:45–12:15

Location: Pavillon 4

SN-5.1 WED 10:45

(Almost) Pure Spin Excitation in a Superconductor — ●CHARIS QUAY HUEI LI, DENIS CHEVALLIER, CRISTINA BENA, and MARCO APRILI — Laboratoire de Physique des Solides (CNRS UMR 8502), Bâtiment 510, Université Paris Sud 11, 91405 Orsay, France.

SN-5.2 WED 11:00

Optical initialization of the resident hole spin in p-doped InAs quantum dots: different routes. — FRANCOIS FRAS¹, BENOIT EBLE EBLE¹, FRÉDÉRIK BERNARDOT¹, AUDREY MIARD², ARISTIDE LEMAÎTRE², CHRISTOPHE TESTELIN¹, and ●MARIA CHAMARRO¹ — ¹Institut des NanoSciences de Paris, UPMC Univ Paris 06, CNRS UMR 7588, 4 place Jussieu, F-75252 Paris cedex 05, France — ²Laboratoire de Photonique et Nanostructures, CNRS, Route de Nozay, F-91460 Marcoussis, France

SN-5.3 WED 11:15

Nucleation of magnetic domains under electrical currents in semiconductor ferromagnetic films with perpendicular anisotropy (GaMnAsP) — ●JON GORCHON¹, JAVIER CURIALE², VINCENT JEUDY^{1,3}, ARISTIDE LEMAÎTRE², CHRISTIAN ULYSSE², and GIANCARLO FAINI² — ¹Laboratoire de Physique des Solides, CNRS, Université Paris-Sud, 91405 Orsay, France — ²Laboratoire de Photonique et de Nanostructures, CNRS, 91460 Marcoussis, France — ³Université Cergy-Pontoise, 95000 Cergy-Pontoise, France

SN-5.4 WED 11:30

Current-induced domain wall manipulation in magnetic tunnel junctions — JOAO SAMPAIO¹, PETER METAXAS¹, RIE MATSUMOTO¹, ANDRE CHANTHBOUALA¹, ALEXEI KHVALKOVSKIY¹, VINCENT CROS¹, ABDELMADJID ANANE¹, ●JULIE GROLLIER¹, ALBERT FERT¹, KONSTANTIN ZVEZDIN², AKIO FUKUSHIMA³, HITOSHI KUBOTA³, KAY YAKUSHIJI³, and SHINJI YUASA³ — ¹Unité Mixte de Physique CNRS/Thales associée à l'Université Paris-Sud, Palaiseau France — ²Istituto P.M s.r.l., Turin, Italy — ³National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan

SN-5.5 WED 11:45

Ultrasound triggering of giant magnetocaloric effect in MnAs thin films. — ●MASSIMILIANO MARANGOLO, JEAN YVES PRIEUR, VICTOR ETGENS, MAHMOUD EDRIEF, and JEAN YVES DUQUESNE — Institut des NanoSciences de Paris, UPMC-CNRS UMR 7588, 4 place Jussieu, 75252 Paris Cedex 5, France

SN-5.6 WED 12:00

Pb/Si(557): Uniaxial nesting of spin-polarized surface bands and its relation to transport — ●CHRISTOPH TEGENKAMP, DANIEL LÜKERMANN, and HERBERT PFNÜR — Institut für Festkörperphysik, Leibniz-Universität Hannover, 30167 Hannover, Germany

GT-5: Mechanical properties and nanostructured graphene

Chaired by P. Sutter, Upton, US

Time: Wednesday 10:45–12:15

Location: Amphi. Pasquier

GT-5.1 WED 10:45

Unusual Elastic and Inelastic Behavior of Carbon Nanotubes due to Molecular Encapsulation: Dynamic Force Microscopy and Spectroscopy Studies — ●MAKOTO ASHINO and ROLAND WIESENDANGER — Institute of Applied Physics, University of Hamburg, Hamburg, Germany

GT-5.2 WED 11:00

Wrinkling Instability and Unbinding of Graphene on Nanoparticles — MAHITO YAMAMOTO¹, OLIVIER PIERRE-LOUIS², JIA HUANG¹, MICHAEL S. FUHRER¹, THEODORE L. EINSTEIN¹, and ●WILLIAM G. CULLEN¹ — ¹Materials Research Science and Engineering Center and Center for Nanophysics and Advanced Materials, Department of Physics, University of Maryland, College Park, MD 20742, USA — ²LPMCN, Université Claude Bernard Lyon 1, F 69622 Villeurbanne, France

GT-5.3 WED 11:15

The atomic and electronic structure of well-defined graphene nanoribbons studied by scanning probe microscopy — ●MARK P. BONESCHANSCHER¹, JOOST VAN DER LIT¹, ZHIXIANG SUN¹, PETER LILJEROTH², and DANIËL VANMAEKELBERGH¹ — ¹Condensed Matter and Interfaces, Debye Institute for Nanomaterials Science, Utrecht University, PO Box 80000, 3508 TA Utrecht, The Netherlands — ²Department of Applied Physics, Aalto University School of Science, 00076 Aalto, Finland

GT-5.4 WED 11:30

Direct observation of electron confinement and dispersion relation of epitaxial graphene islands — ●AUGUSTO LEON VANEGAS¹, SOO-HYON PHARK¹, JEROME BORME², MARCO CORBETTA¹, DIRK SANDER¹, and JURGEN KIRSCHNER¹ — ¹Max Planck Institute of

Microstructure Physics, Weinberg 2, 06120 Halle, Germany — ²International Iberian Nanotechnology Laboratory, Avenida Mestre Jose Veiga, 4715-310 Braga, Portugal

GT-5.5 WED 11:45

Quantum-Confined Electronic States in Atomically Well-Defined Graphene Nanostructures — ●ARI HARJU¹, SAMPSA HÄMÄLÄINEN¹, ZHIXIANG SUN², MARK BONESCHANSCHER², ANDREAS UPPSTU¹, MARI IJÄS¹, DANIËL VANMAEKELBERGH², and PETER LILJEROTH^{1,2} — ¹Department of Applied Physics, Aalto University School of Science, 00076 Aalto, Finland — ²Condensed Matter and Interfaces, Debye Institute for Nanomaterials Science, Utrecht University, PO Box 80000, 3508 TA Utrecht, the Netherlands

GT-5.6 WED 12:00

Electron localization in epitaxial graphene on Ru(0001) — DANIELE STRADI¹, SARA BARJA^{2,3}, CRISTINA DÍAZ¹, MANUELA GARNICA^{2,3}, BOGDANA BORCA³, JUAN JOSE HINAREJOS³, DANIEL SÁNCHEZ-PORTAL^{4,5}, MANUEL ALCAMÍ¹, ANDRÉS ARNAU^{4,5,6}, ●AMADEO L. VÁZQUEZ DE PARGA^{2,3}, FERNANDO MARTÍN^{1,2}, and RODOLFO MIRANDA^{2,3} — ¹Dep. Química Modulo 13, Universidad Autónoma de Madrid, Cantoblanco 28049, Madrid, Spain — ²Instituto Madrileño de Estudios Avanzados en Nanociencia (IMDEA-Nanociencia), Cantoblanco 28049, Madrid, Spain — ³Dep. Física de la Materia Condensada, Universidad Autónoma de Madrid, Cantoblanco 28049, Madrid, Spain — ⁴Materials Physics Center (CSIC-UPV/EHU), Paseo Manuel de Lardizabal 5, 20018, San Sebastian, Spain — ⁵Donostia International Physics Centre (DIPC), Paseo Manuel de Lardizabal 4, 20018, San Sebastian, Spain — ⁶Dep Física de Materiales (UPV/EHU), Facultad de Química, Apartado 1072, 20080, San Sebastian, Spain

NO-5: SERS, TERS, and optics of nanostructured media

Chaired by Z. Dong, Hefei, CN

Time: Wednesday 10:45–12:15

Location: Grand Amphi.

NO-5.1 WED 10:45

Nonlinear Optical Wave Equation for Micro- and Nano-Structured Media and its application — ●VALERI KOVALEV — P. N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia

NO-5.2 WED 11:00

Amplitude fluctuations in dynamic Surface-Enhanced Raman Spectroscopy — ●ERIC FINOT¹, THIBAUT BRULÉ¹, HÉLÈNE YOCKELL LELIÈVRE¹, JÉRÉMIE MARGUERITAT¹, ALEXANDRE BOUHELIER¹, LAURENT MARKEY¹, ALAIN DEREUX¹, STÉPHANIE TRUONG², JOHAN GRAND², GEORGES LÉVI², NORDIN FÉLIDJ², and

JEAN AUBARD² — ¹Laboratoire Interdisciplinaire Carnot de Bourgogne, UMR CNRS 6303, Université de Bourgogne, 9 Avenue Alain Savary, F-21078 Dijon France — ²Interfaces, Traitements, Organisations et Dynamique des Systèmes, Université Paris7-Denis Diderot, UMR 7086, Bâtiment Lavoisier, 15 rue Jean de Baïf, 75205 Paris, France

NO-5.3 WED 11:15

Confinement effect of the Localized Surface Plasmons on the coupling of gold nanolithographed structures: Application to Surface Enhanced Raman Scattering — ●NICOLAS GUILLOT¹, CRISTIANO D'ANDREA², ANDREA TOMA³, PABLO ALBELLA⁴, REMO ZACCARIA³, ENZO DI FABRIZIO³, JAVIER AIZPURUA⁴,

PIETRO GUCCIARDI², and MARC LAMY DE LA CHAPELLE¹ — ¹Université Paris XIII, Laboratoire CSPBAT (UMR 7244), UFR SMBH, équipe LBPS, 93017 Bobigny, France — ²IPCF-Messina, V.le F. Stagno D'Alcontres, 37, c.da Pappardo, 98158 Messina, Italy — ³Istituto Italiano di Tecnologia (IIT). Via Morego, 30 16163 Genova, Italy. — ⁴Centro de Fisica de Materiales, CSIC UPV/EHU, Paseo Manuel de Lardizabal 4, Donostia-San Sebastian 20018, Spain

NO-5.4 WED 11:30

A Sharp Metallic Tip Sees the Light: Going Beyond the Diffraction Limit of Light with Tip-Enhanced Raman Spectroscopy. — ●RAUL DAVID RODRIGUEZ¹, EVGENIYA SHEREMET¹, OVIDIU DORIN GORDAN¹, SUSANNE MÜLLER¹, ALEXANDER VILLABONA¹, MICHAEL HIETSCHOLD⁵, VOLODYMYR DZHAGAN², EMMANUELLE LACAZE³, JACQUES JUPILLE³, BENOIT DUBERTRET⁴, and DIETRICH ZAHN¹ — ¹Semiconductor Physics, Chemnitz University of Technology, Reichenhainer Str. 70. Chemnitz, 09126, Germany. — ²Institute of Semiconductor Physics of the National Academy of Sciences, Kyiv 03028, Ukraine. — ³Institut des Nano-Sciences de Paris (INSP), 75252

Paris, France. — ⁴Laboratoire de Physique et d'Etude des Matériaux, UMR8213 du CNRS, ESPCI, 75005 Paris, France. — ⁵Solid Surfaces Analysis Group, Chemnitz University of Technology, Reichenhainer Str. 70. Chemnitz, 09126, Germany.

NO-5.5 WED 11:45

Towards maximum enhancement in Raman spectroscopy — EVGENIYA SHEREMET, ●RAUL DAVID RODRIGUEZ, OVIDIU DORIN GORDAN, SUSANNE MÜLLER, ALEXANDER VILLABONA, STEFAN MORAS, MICHAEL LUDEMANN, and DIETRICH R.T. ZAHN — Semiconductor Physics, Chemnitz University of Technology, D-09107 Chemnitz, Germany

NO-5.6 WED 12:00

Measurement of Plasmon Response Function by Spectral Interferometry with NSOM for Spatiotemporal Plasmon Control — ●SHUTARO ONISHI, JUN OI, MIYUKI KUSABA, and FUMIHIKO KANNARI — Department of Electronics and Electrical Engineering, Keio University 3-14-1, Hiyoshi, Kohoku-ku Yokohama 223-8522, Japan

SA-4: Self-assemblies and interactions II

Chaired by P. Allongue, Palaiseau, FR

Time: Wednesday 10:45–12:15

Location: Salle du Conseil

Invited SA-4.1 WED 10:45
Microscopy and Spectroscopy of Ultrathin Organic Layers and Nanocrystals — ●PETER ZEPPEFELD — Institute of Experimental Physics, Johannes Kepler University Linz, Austria

SA-4.2 WED 11:15

Influence of substrate topography on the molecular self-assembly of TMA — MAHDI S. BAVIOLIAEI and ●LARS DIEKHÖNER — Department of Physics and Nanotechnology, Aalborg University, Aalborg, Denmark

SA-4.3 WED 11:30

Formation of BN-functionalised surfaces by 2D self-assembly of borazine derivative molecules — ●NATALIYA KALASHNYK¹, SIMON KERVYN DE MEERENDRÉ², MASSIMO RIELLO³, ANDREA FLORIS³, TIM JONES¹, ALESSANDRO DE VITA³, DAVIDE BONIFAZI², and GIOVANNI COSTANTINI¹ — ¹Department of Chemistry, the University of Warwick, Coventry CV4 7AL, United Kingdom — ²Department of Chemistry, FUNDP, University of Namur, B-5000 Namur, Belgium — ³Department of Physics,

King's College London, London WC2R 2LS, United Kingdom

SA-4.4 WED 11:45

A Molecule-like Composite Nanostructure by Self-selective Growth — ●YANGCHUN XIE, LIN TANG, and QUANMIN GUO — Nanoscale Physics Research Laboratory, School of Physics and Astronomy, University of Birmingham, Birmingham B15 2TT, UK

SA-4.5 WED 12:00

Dipole-Driven Self-Organization of Zwitterionic Molecules on Alkali Halide Surfaces — LAURENT NONY¹, FRANCK BOCQUET¹, FRANCK PARA¹, FRÉDÉRIC CHÉRIOUX², ERIC DUVERGER², FRANCK PALMINO², VINCENT LUZET², and ●CHRISTIAN LOPPACHER¹ — ¹Aix-Marseille Université, IM2NP, Av. Normandie-Niemen, Case 151, F-13397 Marseille CEDEX 20, France; CNRS, IM2NP (UMR 7334), Marseille-Toulon, France — ²Institut FEMTO-ST, Université de Franche-Comté, CNRS, ENSMM, 32, Avenue de l'Observatoire, F-25044 Besancon Cedex, France

SO-7: Nanoparticles : Metal, alloys and self assembly

Chaired by S. Narasimhan, Bangalore, IN

Time: Wednesday 14:00–16:15

Location: Amphi. Portier

SO-7.1 WED 14:00

Nanomorphology of Platinum Nanoparticles: An in situ SAXS study of the growth process in liquid solu-

tion — ●CAROLINE SALZEMANN¹, PASCAL ANDREAZZA², and CHRISTOPHE PETIT¹ — ¹Laboratoire des Matériaux Mésoscopiques et Nanométriques (LM2N), Université Pierre

et Marie Curie - CNRS UMR7070, 4 place Jussieu 75252 PARIS CEDEX 05, FRANCE — ²Centre de Recherche sur la Matière Divisée (CRMD) Université d'Orléans - CNRS UMR6619, 1bis rue de la Férellerie - 45071 ORLEANS CEDEX 2 - FRANCE

SO-7.2 WED 14:15

Dielectrophoretic Growth of Metallic Nanowires from Solution: a Parameter Study — ●ALEXANDER NEROWSKI¹, MARKUS POETSCHKE¹, MANFRED BOBETH¹, LARYSA BARABAN¹, JOERG OPITZ², and GIANAURELIO CUNIBERTI¹ — ¹Institute for Materials Science and Max Bergmann Center of Biomaterials, Dresden University of Technology, 01062 Dresden, Germany — ²Fraunhofer-Institute for Non-Destructive Testing, 01109 Dresden, Germany

SO-7.3 WED 14:30

Tailoring structure and anisotropy of Co-based nanoparticles through size and temperature effects — ●ZEINAB KATAYA¹, PASCAL ANDREAZZA¹, HOCINE KHELFAANE², CAROLINE ANDREAZZA-VIGNOLLE², and CHRISTINE MOTTET³ — ¹Centre de Recherche sur la Matière Divisée, Université d'Orléans, CNRS, 1b rue de la Férellerie, 45071 Orléans Cedex 2, France — ²Faculté des Sciences, Université de Boumerdes, 35000 Boumerdes, Algérie — ³Centre Interdisciplinaire de Nanosciences de Marseille, CNRS, Campus de Luminy, case 913, 13288 Marseille cedex 9, France,

SO-7.4 WED 14:45

In-situ Observation of Gold Nanoparticles Nucleation Sites on TiO₂(110) using Scanning Tunneling Microscopy. — ●AXEL WILSON¹, ROMAIN BERNARD¹, YVES BORENSZTEIN¹, AHMED NAITABDI², and GEOFFROY PREVOT¹ — ¹Institut des NanoSciences de Paris, Université Pierre et Marie Curie, CNRS, 4 Place Jussieu, 75252 Paris Cedex 05, France — ²Laboratoire de Chimie Physique Matière et Rayonnement, Université Pierre et Marie Curie, CNRS, 11 rue Pierre et Marie Curie, F-75231 Paris Cedex 05, France

SO-7.5 WED 15:00

Selection of Single Nanocrystals Through Two

Colloidal Crystals Growths — ●NICOLAS GOUBET¹, HERVÉ PORTALÈS¹, PIERRE-ANTOINE ALBOUY², and MARIE-PAULE PILENI¹ — ¹Laboratoire des Matériaux Mésoscopiques et Nanométriques, Université Pierre et Marie Curie C.N.R.S., Paris, France — ²Laboratoire de Physique des Solides, Université Paris-Sud, Orsay, France

SO-7.6 WED 15:15

Formation of Silver Supracrystals with Tunable Crystalline Structure — ●ALEXA COURTY¹, PIERRE-ANTOINE ALBOUY², JOHANNES RICHARDI¹, and MARIE-PAULE PILENI¹ — ¹Laboratoire des Matériaux Mésoscopiques et Nanométriques (LM2N), UMR C.N.R.S. 7070, Université Pierre et Marie Curie, BP 52, 4 place Jussieu, 75252 Paris Cedex 05, France — ²Laboratoire de Physique des solides, UMR C.N.R.S. 8502, Université Paris Sud, Bât 510, 91405 Orsay Cedex, France

SO-7.7 WED 15:30

Templating Mesoscale Architectures from Block Copolymers and Nanocrystals — ●TERESA PICK¹, RAFFAELLA BUONSANTI², NATACHA KRINS², DELIA MILLIRON², and BRETT HELMS² — ¹Applied Science and Technology, University of California, Berkeley, United States & The Molecular Foundry, Lawrence Berkeley National Lab, Berkeley, United States — ²The Molecular Foundry, Lawrence Berkeley National Lab, Berkeley, United States

SO-7.8 WED 15:45

Electric field induced self-assembly of monolayers of binary mixtures of particles — ●PUSHPENDRA SINGH, MD.SHAHADAT HOSSAIN, BHAVIN DALAL, SATHISH GURUPATHAM, MUHAMMAD JANJUA, and SAI NUDURUPATI — Department of Mechanical and Industrial Engineering, New Jersey Institute of Technology, Newark, NJ 07102

SO-7.9 WED 16:00

Growth and Characterization of Nanostructures of copper wires by electrochemical deposition technique. — ●JYOTI NARAYAN, SUSHABHAN CHOUDHURY, VARUN KUMAR, SHAHID LASKAR, and TRIDIP DAS — School of Technology, North Eastern Hill University, Shillong- 793 022 (India)

NE-8: Superconductivity

Chaired by Q.-K. Xue, Beijing, CN

Time: Wednesday 14:00–16:15

Location: Amphi. Richet

NE-8.1 WED 14:00

Break-up of long-range coherence in ultrathin superconducting NbN films close to the superconductor-insulator transition — YVES NOAT¹, TRISTAN CREN¹, FRANÇOIS DEBONTRIDDER¹, ●CHRISTOPHE BRUN¹, DIMITRI RODITCHEV¹, KONSTANTIN ILIN², MICHAEL SIEGEL², ALEXEI SEMENOV³, and H.-W. HUBERS³ — ¹Institut des Nanosciences de Paris, CNRS and Université Pierre et Marie Curie, 4 place Jussieu, 75252 Paris, France — ²Institute of Micro- und Nano-electronic Systems, Karlsruhe Institute of

Technology, Hertzstrasse 16, D-76187 Karlsruhe, Germany — ³DLR Institute of Planetary Research, Rutherfordstrasse 2, 12489 Berlin, Germany

NE-8.2 WED 14:15

Subgap-anomalies in 3-terminal hybrid superconductor/ normal metal nanostructures — ●ANDREAS PFEFFER^{1,3}, HERVÉ COURTOIS², and FRANÇOIS LEFLOCH¹ — ¹CEA/INAC/SPSMS, Grenoble, France — ²CNRS & UJF, Néel Institute, Grenoble, France — ³Nanoscience

Foundation (RTRA), Grenoble, France

Invited NE-8.3 WED 14:30
Revealing Confinement-Induced Vortex Configurations in Nanometer-Scale Superconductors with Scanning Tunneling Spectroscopy — ●DIMITRI RODITCHEV, TRISTAN CREN, LISE SERRIER-GARCIA, CHRISTOPHE BRUN, and FRANÇOIS DEBONTRIDDER — Institut des Nanosciences de Paris, University Pierre et Marie Curie Paris 6 and C.N.R.S.-UMR 7588, 4 place Jussieu, 75252 Paris, France

NE-8.4 WED 15:00
Proximity Effect Induced Cooper Pairs in Thin Films of Topological Insulators — ●CANHUA LIU¹, MEI-XIAO WANG¹, JIN-PENG XU¹, CHUN-LEI GAO¹, DONG QIAN¹, JIN-FENG JIA¹, and QI-KUN XUE² — ¹Department of Physics, Shanghai Jiao Tong University, Shanghai, China — ²Department of Physics, Tsinghua University, Beijing, China

NE-8.5 WED 15:15
Proximity in nanometer size superconducting Nb islands : An STM study — SANGJUN JEON¹, HWAN-SOO SUH², SUNGMIN KIM¹, YOUNGTEK OH², and ●YOUNG KUK¹ — ¹Seoul National University, 151-747 Republic of Korea — ²Samsung Advanced Institute of Technology, 449-712 Republic of Korea

NE-8.6 WED 15:30
Spatially Uniform Nodeless Two-Gap Superconductivity

Observed in Scanning Tunneling Spectroscopy of LiFeAs — SHUN CHI¹, ●STEPHANIE GROTHE¹, RUIXING LIANG¹, WALTER N. HARDY¹, SARAH A. BURKE^{1,2}, DOUG A. BONN¹, and YAN PENNEC¹ — ¹Department of Physics and Astronomy, University of British Columbia, Vancouver BC, Canada — ²Department of Chemistry, University of British Columbia, Vancouver BC, Canada

NE-8.7 WED 15:45
Scanning and break-junction tunneling measurements of superconducting FeXTe (X=Se, S) — ●TOSHIKAZU EKINO¹, RYUICHI UKITA¹, AKIRA SUGIMOTO¹, and ALEXANDER GABOVICH² — ¹Graduate School of Integrated Arts and Sciences, Hiroshima University, Higashi-Hiroshima 739-8521, Japan — ²Institute of Physics, National Academy of Sciences of Ukraine, 46, Nauka Avenue, Kyiv 03680, Ukraine

NE-8.8 WED 16:00
Disorder effects in pnictides: a tunnelling spectroscopy study — ●YVES NOAT¹, TRISTAN CREN¹, VINCENT DUBOST¹, SÉBASTIEN LANGE¹, FRANÇOIS DEBONTRIDDER¹, PIERRE TOULEMONDE², JACQUES MARCUS², ALAIN SULPICE², WILLIAM SACKS³, and DIMITRI RODITCHEV² — ¹Institut des Nanosciences de Paris, CNRS UMR 7588, Université Pierre et Marie Curie Paris 6, 4 place Jussieu, 75005 Paris, France — ²Institut Néel, CNRS et Université Joseph Fourier, 25 rue des Martyrs, BP 166, F-38042 Grenoble, France — ³Institut de Minéralogie et de Physique des Milieux Condensés, CNRS UMR 7590, 4 place Jussieu, 75005 Paris, France

SC-5: Si nanocrystals

Chaired by C. F. Lin, Taipei, TW

Time: Wednesday 14:00–16:15

Location: Pavillon 1

SC-5.1 WED 14:00
Anisotropy and instability of solid dewetting fronts — FRÉDÉRIC LEROY, FABIEN CHEYNIS, THIBAUT PASSESANANTE, and ●PIERRE MÜLLER — Aix-Marseille Univ. , CNRS CINaM UMR 7325, Case 913 Campus de Luminy, 13288 Marseille Cedex, France

SC-5.2 WED 14:15
Synthesis of light-emitting nanocrystals in Si/SiO₂ multilayers, stimulated by swift heavy ions — GREGORY KACHURIN¹, SVETLANA CHERKOVA¹, DENIS MARIN^{1,2}, VLADIMIR VOLODIN^{1,2}, ALEKSANDR CHERKOV^{1,2}, ALEKSANDR ANTONENKO¹, and ●VLADIMIR SKURATOV³ — ¹A.V. Rzhanov Institute of Semiconductor Physics SB RAS, 630090 Novosibirsk, Russia — ²Novosibirsk State University, 630090 Novosibirsk, Russia — ³Joint Institute for Nuclear Research, 141980 Dubna, Russia.

SC-5.3 WED 14:30
Fabricating High-aspect-ratio Si Nanohole Thin Films on Reusable Substrates — ●TZU-CHING LIN¹, SHU-CHIA SHIU², HONG-JHANG SYU², and CHING-FUH

LIN^{1,2,3} — ¹Graduate Institute of Electronics Engineering, National Taiwan University, Taipei 106, Taiwan (R.O.C.) — ²Graduate Institute of Photonics and Optoelectronics, National Taiwan University, Taipei 106, Taiwan (R.O.C.) — ³Department of Electrical Engineering, National Taiwan University, Taipei 106, Taiwan (R.O.C.)

SC-5.4 WED 14:45
Impact of real and momentum space electronic structure of silicon nanoparticles on luminescence — ●PROKOP HAPALA, KATERINA KUSOVA, IVAN PELANT, and PAVEL JELINEK — Institute of Physics , Academy of Sciences of the Czech Republic, Cukrovarnická 10, Prague, 16253, Czech Republic

SC-5.5 WED 15:00
Quantum Chemical Molecular Dynamics Simulation and Mechanism Analysis of Silicon-Dioxide Etching Process by CF_x Radicals — ●HIROSHI ITO¹, TAKUYA KUWAHARA¹, YUJI HIGUCHI¹, NOBUKI OZAWA¹, TOMOMI SHIMAZAKI¹, SEIJI SAMUKAWA², and MOMOJI KUBO¹ — ¹Fracture and Reliability Research Institute, Graduate School of Engineering, Tohoku University, Sendai, Japan

— ²Institute of Fluid Science, Tohoku University, Sendai, Japan

SC-5.6 WED 15:15

Optical Properties of Implanted Si Nanocrystals: Effects of Excimer-UV Light Irradiation and RTA on Photoluminescence — •TSUTOMU S. IWAYAMA¹, TAKAYUKI HAMA², and DAVID E. HOLE³ — ¹Aichi University of Education, Kariya, Aichi 448-8542, Japan — ²Kanazawa University, Kanazawa, Ishikawa 920-1192, Japan — ³University of Sussex, Falmer, Brighton BN1 9QH, U.K.

SC-5.7 WED 15:30

Nanopyramid pattern formation during Ge/Ge(001) homoepitaxy — •GRAZIA TALLARIDA¹, ALESSANDRO MOLLE¹, MD. NURUL KABIR BHUIYAN¹, and MARCO FANCIULLI^{1,2} — ¹Laboratorio MDM, IMM-CNR, via C. Olivetti 2, I-20864 Agrate Brianza (MB), Italy — ²Dipartimento di Scienza dei Materiali, Università degli Studi di Milano Bicocca, via R. Cozzi 53, I-20126, Milano,

Italy

SC-5.8 WED 15:45

Dynamics of Nanocones' Formation in Semiconductors by Laser Radiation — •ARTUR MEDVID', PAVELS ONUFRJEVS, EDVINS DAUKSTA, and GATIS MOZOLEVSKIS — Laboratory of Semiconductor Physics, Riga Technical University, 14 Azenes Str, Riga, LV-1048, Latvia

SC-5.9 WED 16:00

Correlation between structural and functional properties of nanostructured Al:ZnO thin films — •VALERIA RUSSO¹, PAOLO GONDONI¹, MATTEO GHIDELLI¹, FABIO DI FONZO², JAVIER MARTÌ-RUJAS², CARLO E. BOTTANI^{1,2}, ANDREA LI BASSI^{1,2}, and CARLO S. CASARI^{1,2} — ¹Dipartimento di Energia, Politecnico di Milano, via Ponzio 34/3, I-20133 Milano, Italy — ²CNST Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, via Pascoli 70/3, I-20133 Milano, Italy

CC-4: Thin film oxides and tailored properties

Chaired by F. Besenbacher, Aarhus, DK

Time: Wednesday 14:00–16:15

Location: Pavillon 3

Invited

CC-4.1 WED 14:00

Doping of Oxide Materials: A Means to Tailor their Electronic, Chemical and Optical Properties — •NIKLAS NILIUS — Fritz-Haber-Institut der Max-Planck-Gesellschaft, Faradayweg 4-6, D-14195 Berlin, Germany

CC-4.2 WED 14:30

Combining STS and 2PPE spectroscopies on NiO(100) ultrathin films — MARIO KIEL¹, STEPHAN GROSSER¹, ANKE HÖFER¹, KLAUS DUNCKER¹, and •WOLF WIDDRA^{1,2} — ¹Institute of Physics, Martin-Luther Universität Halle, 06120 Halle, Germany — ²Max Planck Institute of Microstructure Physics, Weinberg 2, 06120 Halle, Germany

CC-4.3 WED 14:45

Reconciling Different Contrast Modes in Scanning Tunneling Microscopy Images of Thin Ceria Films — DAVID C. GRINTER, BOBBIE-JEAN SHAW, •CHI L. PANG, and GEOFF THORNTON — Department of Chemistry and London Centre for Nanotechnology, London WC1H 0AJ, UK

CC-4.4 WED 15:00

Scanning tunneling microscopy/spectroscopy study of Al₂O₃ ultra-thin films on differently reconstructed In_{0.53}Ga_{0.47}As(001) surfaces — •CARLO GRAZIANETTI^{1,2}, GRAZIA TALLARIDA¹, SABINA SPIGA¹, MARCO FANCIULLI^{1,2}, and ALESSANDRO MOLLE¹ — ¹Laboratorio MDM, IMM-CNR, via C. Olivetti 2, I-20864 Agrate Brianza (MB), Italy — ²Dipartimento di Scienza dei Materiali, Università degli Studi di Milano Bicocca, via R. Cozzi 53, I-20126, Milano (MI), Italy

CC-4.5 WED 15:15

chromium oxide single layer on Fe(100) — •ANDREA PICONE, GIANLORENZO BUSSETTI, MICHELE RIVA, ALBERTO CALLONI, ALBERTO BRAMBILLA, LAMBERTO DUÒ, MARCO FINAZZI, and FRANCO CICCACCI — Physics Department, Politecnico di Milano, 20133 Milano, Italy

CC-4.6 WED 15:30

Adsorption and Electronic Properties of a Thin Vitreous Silica Film on Ru(0001) — •LEONID LICHTENSTEIN, CHRISTIN BÜCHNER, STEFANIE STUCKENHOLZ, MARKUS HEYDE, and HANS-JOACHIM FREUND — Fritz-Haber-Institut der Max-Planck-Gesellschaft, Faradayweg 4-6, 14195 Berlin, Germany

CC-4.7 WED 15:45

Thermal stability of TiO₂-based nanotubes supported on clean and Rh-seeded TiO₂(110) surface — •ANDRÁS BERKÓ^{1,2} and NÁNDOR BALÁZS¹ — ¹Natural Science Research Center of the Hungarian Academy of Sciences — ²Department of Physical Chemistry and Material Science, University of Szeged, Rerrich Béla tér 1, H-6720 Szeged, Hungary

CC-4.8 WED 16:00

Tuning the Morphology of Gold clusters by Substrate Doping — •NISHA MAMMEN¹, SHOBHANA NARASIMHAN¹, and STEFANO GIRONCOLI² — ¹Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore 560064 India — ²CNR-IOM DEMOCRITOS and SISSA, via Bonomea 265, 34136 Trieste, Italy

SA-5: Self-assemblies and interactions III

Chaired by A. L. Vázquez de Parga, Madrid, ES

Time: Wednesday 14:00–16:15

Location: Pavillon 4

SA-5.1 WED 14:00

Chemical Transformations Drive Complex Self-assembly of Uracil on Close-packed Coinage Metal Surfaces — ●ANTHOULA C. PAPAGEORGIOU¹, SYBILLE FISCHER¹, JOACHIM REICHERT¹, KATHARINA DILLER¹, FLORIAN BLOBNER¹, FLORIAN KLAPPENBERGER¹, FRANCESCO ALLEGRETTI¹, ARI P. SEITSONEN², and JOHANNES V. BARTH¹ — ¹Physik Department E20, Technische Universität München, James-Franck Strasse, 85748 Garching, Germany — ²Physikalisch-Chemisches Institut der Universität Zürich, Winterthurerstr. 190, CH-8057 Zürich, Switzerland

SA-5.2 WED 14:15

Inhomogeneous Relaxation of a Molecular Layer on an Insulator due to Compressive Stress — FRANCK BOCQUET¹, ●LAURENT NONY¹, STEFAN MANNSFELD², VINCENT OISON¹, RÉMY PAWLAK¹, LOUIS PORTE¹, and CHRISTIAN LOPPACHER¹ — ¹Aix-Marseille Université, IM2NP, Av. Normandie-Niemen, Case 151, F-13397 Marseille CEDEX 20, France; CNRS, IM2NP (UMR 7334), Marseille-Toulon, France — ²Stanford Synchrotron Radiation Laboratory (SSRL), Stanford, CA 94305, United States

SA-5.3 WED 14:30

Cysteine on Ag(111): Chiral self-assembly and temperature-dependant phase-transitions — ●SYBILLE FISCHER¹, ANTHOULA C. PAPAGEORGIOU¹, MATTHIAS MARSCHALL¹, JOACHIM REICHERT¹, KATHARINA DILLER¹, FLORIAN KLAPPENBERGER¹, FRANCESCO ALLEGRETTI¹, ALEXEI NEFEDOV², CHRISTOF WÖLL², and JOHANNES V. BARTH² — ¹Physics Department, Inisute E20, Technical University of Munich, Munich, Germany — ²IFG, Karlsruhe Institute of Technology, Karlsruhe, Germany

SA-5.4 WED 14:45

Phase Transformations of Bisphenol A on Cu(111) and Ag(111) — ●JULIAN A. LLOYD, SYBILLE FISCHER, ANTHOULA C. PAPAGEORGIOU, MATTHIAS MARSCHALL, JOACHIM REICHERT, KATHARINA DILLER, FLORIAN KLAPPENBERGER, FRANCESCO ALLEGRETTI, and JOHANNES V. BARTH — Physik Department E20, Technische

Universität München, James-Franck Strasse, 85748 Garching, Germany

SA-5.5 WED 15:00

Growth and structure of thin films of lutetium biphtalocyanine on Si (100)-2×1 — BOUDET SOPHIE¹, BIDERMANE IEVA^{1,2}, BORENSZTEIN YVES¹, and ●WITKOWSKI NADINE¹ — ¹Institut des Nanosciences de Paris UMR 7588, UPMC Univ Paris 06, F-75005, Paris, France — ²Department of Physics and Astronomy, Uppsala University, Box 516, SE-751 20 Uppsala, Sweden

SA-5.6 WED 15:15

Adsorption of Co-phthalocyanine on the rutile TiO₂(110) surface: an STM/STS study — ●NOBUYUKI ISHIDA and DAISUKE FUJITA — National Institute for Materials Science, Tsukuba, Japan

SA-5.7 WED 15:30

Control of Discotic Liquid Crystals monolayer self-assemblies by molecular engineering — ●PIOTR SLECKZKOWSKI^{1,2}, NATHALIE KATSONIS², KINGO UCHIDA³, and EMMANUELLE LACAZE¹ — ¹Institut des NanoSciences de Paris, UMR 7588 CNRS, Université Pierre et Marie Curie, 4 place Jussieu, 75005 Paris, France — ²MESA+ Institute for Nanotechnology, University of Twente, Enschede, The Netherlands — ³Department of Materials Chemistry, Ryukoku University, Seta, Otsu, 520-2194, Japan

SA-5.8 WED 15:45

Growth of 2D covalent networks by direct reaction on surfaces — ●MATHIEU ABEL, SYLVAIN CLAIR, THOMAS FAURY, MATHIEU KODIA, OUALID OURDJINI, and LOUIS PORTE — Institut Matériaux Microélectronique et Nanosciences de Provence, France

SA-5.9 WED 16:00

Kinetics of adsorption of ethylene and benzene on Si(100)2x1, by optical spectroscopy and Monte Carlo approach. — ROMAIN COUSTEL, ●YVES BORENSZTEIN, NADINE WITKOWSKI, and OLIVIER PLUCHERY — Institute for NanoScience in Paris, Univ. PM Curie - CNRS, Paris, France

SN-6: Spin dependent transport through molecules II

Chaired by K. von Bergmann, Hamburg, DE

Time: Wednesday 14:00–16:15

Location: Amphi. Pasquier

SN-6.1 WED 14:00

The SU(4) Kondo effect in Fe-phthalocyanine molecules on Au(111) — ●EMI MINAMITANI¹, NORIYUKI TSUKAHARA², DAISUKE MATSUNAKA³, NORIAKI TAKAGI², MAKI KAWAI², and YOUSOO KIM¹ — ¹RIKEN Advanced Science Institute, 2-1 Hirosawa, Saitama, Japan —

²Department of Advanced Materials Science, The University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Chiba, Japan — ³Department of Mechanical Engineering, Osaka University, 2-1 Yamadaoka, Suita, Osaka, Japan

SN-6.2 WED 14:15

Engineering the spin-sensitive properties of hy-

brid organic-ferromagnetic interfaces by molecular chemical functionalization — ●NICOLAE ATODIRESEI¹, VASILE CACIUC¹, PREDRAG LAZIĆ², and STEFAN BLÜGEL¹ — ¹Peter Grünberg Institut & Institute for Advanced Simulation, Forschungszentrum Jülich and JARA, 52425 Jülich, Germany — ²Massachusetts Institute of Technology, Cambridge, 02139 Massachusetts, USA

SN-6.3 WED 14:30

A Copper nitride Nanotemplate for Single Molecule Magnets — ●BEN WARNER^{1,2}, FADI EL HALLAK¹, MICHAEL WATERS³, JORIS VAN SLAGEREN^{3,4}, and CYRUS HIRJIBEHEDIN^{1,2,5} — ¹London Centre for Nanotechnology, UCL, London, UK — ²Department of Physics and Astronomy, UCL, London, UK — ³School of Chemistry, University of Nottingham, Nottingham, UK — ⁴Institut für Physikalische Chemie, Universität Stuttgart, Stuttgart, Germany — ⁵Department of Chemistry, UCL, London, UK

SN-6.4 WED 14:45

The Kondo effect in molecules coupled to ferromagnetic leads: Exchange and anisotropy effects — ●IRENEUSZ WEYMANN¹, MACIEJ MISIORNY^{1,2}, and JOZEF BARNAS^{1,3} — ¹Department of Physics, Adam Mickiewicz University, Poznan, Poland — ²Peter Grünberg Institute, Forschungszentrum Jülich, Jülich, Germany — ³Institute of Molecular Physics, Polish Academy of Science, Poznan, Poland

SN-6.5 WED 15:00

Switching of Kondo resonance by molecular coordination; iron phthalocyanine on Au(111) — ●NORIYUKI TSUKAHARA¹, EMI MINAMITANI², HARUKA TERAUCHI¹, NORIAKI TAKAGI¹, YOUSOO KIM², and MAKI KAWAI¹ — ¹Department of Advanced Materials Science, the University of Tokyo, Kashiwa, Chiba, Japan — ²Surface and Interface Science laboratory, RIKEN, Wako, Saitama, Japan

SN-6.6 WED 15:15

Kondo Effect in Metal-Organic Charge-Transfer Systems — ●VIOLETA IANCU, KOEN SCHOUTEDEN, and CHRIS VAN HAESDONCK — Laboratory of Solid-State Physics and Magnetism, Department of Physics and Astronomy, KU Leuven, BE-3001 Leuven, Belgium

Invited SN-6.7 WED 15:30

Spintronics with single molecules — ●WULF WULFHEKEL — Physikalisches Institut, Karlsruhe Institute of Technology, Wolfgang Gaede Str. 1, 76131 Karlsruhe, Germany

SN-6.8 WED 16:00

Competition of superconducting phenomena and Kondo screening at the nanoscale — ●KATHARINA J. FRANKE, GUNNAR SCHULZE, BENJAMIN W. HEINRICH, NINO HATTER, GELAVIZH AHMADI, and JOSE I. PASCUAL — Fachbereich Physik, Freie Universität Berlin, Germany

SP-4: SPM and magnetism II

Chaired by C. Chacon, Paris, FR

Time: Wednesday 14:00–16:15

Location: Grand Amphi.

Invited SP-4.1 WED 14:00
Prospects of Magnetic Exchange Force Microscopy and Spectroscopy — ●ALEXANDER SCHWARZ — Institute of Applied Physics, University of Hamburg, Jungiusstr. 11, 20355 Hamburg, Germany

SP-4.2 WED 14:30

Unique vortex states on nanosize superconducting islands observed by LT-STM — TAIKI SAKAMOTO¹, TAKA AKI TOMINAGA¹, TAKAHIRO NISHIO², TOYOAKI EGUCHI³, YASUO YOSHIDA¹, and ●YUKIO HASEGAWA¹ — ¹Institute for Solid State Physics, The University of Tokyo, Japan — ²RIKEN, Japan — ³JST-ERATO/Keio University, Japan

SP-4.3 WED 14:45

Spin-transfer torque and Joule heating of field-emitted electrons — ●ANIKA SCHLENHOFF, ANDREAS SONNTAG, STEFAN KRAUSE, and ROLAND WIESENDANGER — Institute of Applied Physics, University of Hamburg, Germany

SP-4.4 WED 15:00

Construction and first results of an STM operating at mK temperatures — ●CHRISTIAN AST, MAXIMIL-

IAN ASSIG, MARKUS ETZKORN, and KLAUS KERN — Max Planck Institute for Solid State Research, Heisenbergstrasse 1, 70569 Stuttgart, Germany

SP-4.5 WED 15:15

Kelvin probe force microscopy to study electrostatics in biological assemblies. — ELIZABETH DROLLE¹, RAVI GAIKWAD², and ●ZOYA LEONENKO^{1,2} — ¹Department of Biology, University of Waterloo, Canada — ²Department of Physics and Astronomy, University of Waterloo, Canada

SP-4.6 WED 15:30

Joule Heating and Spin-Transfer Torque Investigated on the Atomic Scale — ●STEFAN KRAUSE, GABRIELA HERZOG, ANIKA SCHLENHOFF, ANDREAS SONNTAG, and ROLAND WIESENDANGER — Institute of Applied Physics, University of Hamburg, Germany

SP-4.7 WED 15:45

Magnetic Force Microscopy Sensors Providing In-Plane and Perpendicular Sensitivity — ●THOMAS MÜHL, JULIA KÖRNER, ALBRECHT LEONHARDT, and BERND BÜCHNER — Leibniz Institute for Solid State and Materials Research Dresden, Dresden, Germany

SP-4.8 WED 16:00
Towards quantitative magnetic force microscopy: theory and experiment — ●BERNDT KOSLOWSKI¹, THOMAS HÄBERLE¹, FELIX HÄRING¹, HOLGER PFEIFFER¹, LUYANG HAN¹, BALATI KUERBANJIANG²,

ULF WIEDWALD¹, and ULRICH HERR² — ¹Institut für Festkörperphysik, Universität Ulm, D-89069 Ulm, Germany — ²Institut für Mikro- und Nanomaterialien, Universität Ulm, D-89069 Ulm, Germany

NO-6: Surface patterning with light - luminescent nanosources and hybrid structures

Chaired by M. A. Lauterbach, Paris, FR

Time: Wednesday 14:00–16:00

Location: Salle du Conseil

NO-6.1 WED 14:00
Optical and plasmonic properties of metallic nanostructure arrays grown on optically patterned photochromic thin films — ●ANH-DUC VU, FILIPPO FABBRI, LUCIO MARTINELLI, YVES LASSAILLY, KHALID LAHLIL, JEAN-PIERRE BOILOT, THIERRY GACOIN, and JACQUES PERETTI — Laboratoire de Physique de la Matière Condensée, Ecole Polytechnique, CNRS, 91128 Palaiseau, France.

NO-6.2 WED 14:15
Control of Coherent Long-range Plasmon Polaritons Excited by a Femtosecond Laser for Nano Periodic Surface Patterning — ●GO OBARA^{1,2}, HISASHI SHIMIZU¹, NAOKI MAEDA¹, MITSUHIRO TERAOKAWA¹, ERIC MAZUR², and MINORU OBARA¹ — ¹School of Integrated Design Engineering, Keio University, Hiyoshi, Yokohama, 223-8522, Japan — ²Physics Department, Harvard University, 29 Oxford Street, Cambridge, MA 02138, USA

NO-6.3 WED 14:30
Electrospun Euopium doped Titania nanofiber for light emitting applications — PAULTHI VICTOR¹ and ●VICTOR JAYA NESAMONY² — ¹Department of Electronics and Instrumentation Engineering, Easwari Engineering college, Chennai 600 089, India. — ²Department of Physics, Anna University, Chennai 600 025, India

Invited NO-6.4 WED 14:45
Two-Color Antibunching from Band-Gap Engineered Colloidal Semiconductor Nanocrystals — ZVICKA DEUTSCH¹, OSIP SCHWARTZ¹, RON TENNE¹, RONIT POPOVITZ-BIRO², and ●DAN ORON¹ — ¹Dept.

Physics Complex Systems, Weizmann Institute, Rehovot, Israel — ²Chemical Research Support, Weizmann Institute, Rehovot, Israel

NO-6.5 WED 15:15
Effect of gold nanoparticles on the luminescence of Er³⁺:Yb³⁺:Lu₂O₃ nanorods — WILLIAM BARRERA¹, ●MARIA CINTA PUJOL¹, CONCEPCIÓN CASCALES², JOAN JOSEP CARVAJAL¹, XAVIER MATEOS¹, ADOLFO SPEGHINI³, MARCO BETTINELLI³, MAGDALENA AGUILÓ¹, and FRANCESC DIAZ¹ — ¹Física i Cristal·lografia de Materials i Nanomaterials (FiCMA-FiCNA)-EMaS, Universitat Rovira i Virgili (URV), Campus Sescelades, c/ Marcel·lí Domingo, s/n, E-43007 Tarragona, Spain — ²Instituto de Ciencia de Materiales de Madrid, CSIC, Calle Sor Juana Inés de la Cruz, Cantoblanco, E-28049 Madrid, Spain — ³Dipartimento di Biotecnologie, Università di Verona and INSTM, UdR Verona, Ca'Vignal, Strada Le Grazie 15, 37134 Verona, Italy

NO-6.6 WED 15:30
Coherent Control of a Semiconductor Quantum Dot - Metal Nanoparticle Hybrid Structure — ●EMMANUEL PASPALAKIS¹, SOFIA EVANGELOU¹, and ANDREAS TERZIS² — ¹Materials Science Department, University of Patras, Patras 265 04, Greece — ²Physics Department, University of Patras, Patras 265 04, Greece

NO-6.7 WED 15:45
Colloidal quantum dots as saturable single photon emitters — OSIP SCHWARTZ, JONATHAN M LEVITT, ●RON TENNE, and DAN ORON — Dept. of Physics of Complex Systems, Weizmann Institute of Science, Rehovot 76100, Israel

71: Coffee Break

Time: Wednesday 16:15–16:45

Location: Coffee Break

Coffee Break

PO7: Poster Session 7: Novel nanomaterials and self-organisation I / Spintronics and nanomagnetism I

Time: Wednesday 17:00–19:00

Location: PO Cordeliers Réfectoire

PO7.1 WED 17:00
Quasi one-dimensional excellent controllable growth of ZnO nanoflicker over nanowires reduces to

nanoparticles doped W-182 AFLC host and study its optical-luminescence-dielectric behavior — KAUSHIK PAL¹, TAPAS PAL MAJUMDER¹, ●SUBHAS C

DEBNATH², and ROMAN DABROWSKI³ — ¹University of Kalyani, Department of Physics, West-Bengal, India, 741235 — ²University of Kalyani, Department of Chemistry, West-Bengal, India, 741235 — ³Institute of Chemistry, Military University of Technology, Warsaw, Poland-00908

PO7.2 WED 17:00

Floating Photothermal Materials to Improve the Solar Evaporation Performance — •YAO ZENG, JIANFENG YAO, BAHMAN AMINI HORRI, KUN WANG, YUZHOU WU, DAN LI, and HUANTING WANG — Department of Chemical Engineering, Monash University, Australia

PO7.3 WED 17:00

Nano capture and mass spectrometry of aromatic molecules by phenyl group-modified nanoparticle — •SHU TAIRA¹, SHUICHI SHIMMA², DAISAKU KANEKO¹, and YUKO ICHIYANAGI³ — ¹Japan Advanced Institute of Science and Technology School of Material Science 1-1 Asahidai, Nomi city, Ishikawa 923-1292, Japan — ²Center for Advanced Science and Innovation, Venture Business Laboratory, Osaka University, Suita, Osaka 565-0871, Japan — ³Department of Physics, Graduate School of Engineering, Yokohama National University 79-5 Tokiwadai, Hodogayaku, Yokohama 240-8501, Japan

PO7.4 WED 17:00

Polyurethane Based All-organic Nanocomposite with High Dielectric Response — •JINGWEN WANG and SHUQIN LI — College of Material Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing 211106, P. R. China

PO7.5 WED 17:00

Molecular Approach Towards Nanoscaled Magnéli Thermoelectric Composites — •DAVID PORTEHAULT^{1,2,3}, VASANA MANEERATANA⁴, CHRISTOPHE CANDOLFI⁵, NIELS OESCHLER⁵, YURI GRIN⁵, CLÉMENT SANCHEZ^{1,2,3}, and MARKUS ANTONIETTI⁴ — ¹UPMC Univ Paris 06, UMR 7574, Chimie de la Matière Condensée de Paris, Collège de France, 11 place Marcelin Berthelot, 75231 Paris Cedex 05, France — ²CNRS, UMR 7574, Chimie de la Matière Condensée de Paris, France. — ³Collège de France, UMR 7574, Chimie de la Matière Condensée de Paris, France. — ⁴Max-Planck-Institute of Colloids and Interfaces, Department of Colloid Chemistry, Campus Golm, 14424 Potsdam, Germany — ⁵Max-Planck-Institut für Chemische Physik fester Stoffe, Dresden 01187, Germany

PO7.6 WED 17:00

Low Cost, Surfactant-less, one Pot Synthesis of Cu₂O Nano-octahedra at Room Temperature — •ASAR AHMED and NAMDEO GAJBHIYE — Department of Chemistry, Indian Institute of Technology Kanpur, India

PO7.7 WED 17:00

The Preparation of nano Fe₃O₄/TiO₂ Composite and its Photocatalytic Properties — •XIAODAN HU¹, DONGMEI CAO², and HAIQIAN ZHANG³ — ¹College of Material Science and Technology, Nanjing University of Aero-

nautics and Astronautics, Nanjing, P.R. China — ²College of Material Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing, P.R. China — ³College of Material Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing, P.R. China

PO7.8 WED 17:00

Correlation between the viscosity and the response to an alternating magnetic field of magnetite nanoparticles — •MARY LUZ MOJICA PISCIOTTI, ROBERTO D ZYSLER, ENIO LIMA JR., and MARCELO VÁSQUEZ MANSILLA — Laboratorio de Resonancias Magnéticas, Instituto Balseiro, Centro Atómico Bariloche, S.C. de Bariloche, RN 8400, Argentina

PO7.9 WED 17:00

Surface modification of corn straw cellulose whiskers as revealed by TEM — •NOOR REHMAN, MARIA INEZ G. MIRANDA, SIMONE M. L. ROSA, SONIA M. B. NACHTIGALL, and CLARA I. D. BICA — Instituto de Química, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil

PO7.10 WED 17:00

Electrical conductivity of nanostructured and C₆₀-modified aluminum — •ANDREY ZAMESHIN^{1,2}, MIKHAIL POPOV¹, VYACHESLAV MEDVEDEV^{1,4}, SERGEY PERFILOV¹, ROMAN LOMAKIN¹, SERGEY BUGA¹, VIKTOR DENISOV¹, ALEKSEY KIRICHENKO¹, ELENA SKRYLEVA³, EVGENY TATYANIN¹, VIKTOR AKSENEKOV¹, and VLADIMIR BLANK¹ — ¹Technological Institute for Superhard and Novel Carbon Materials, Troitsk, Moscow Region, Russia — ²Moscow Institute of Physics and Technology (State University), Dolgoprudny, Moscow Region, Russia — ³National University of Science and Technology 'MISIS', Moscow, Russia — ⁴currently with FOM Institute DIFFER, Nieuwegein, The Netherlands

PO7.11 WED 17:00

preparation and characterization of new amphiphiles with oligo- and polysaccharides — ALEXANDRE GONÇALVES DAL-BÓ¹, FERNANDO C. GIACOMELLI³, REDOUANE BORSALI², and •SÉBASTIEN FORT² — ¹Universidade Federal do Rio Grande do Sul, Av. Bento Gonçalves 9500, 91501-970 Porto Alegre, RS, Brazil — ²Centre de Recherches sur les Macromolécules Vegetales (CERMAV-CNRS), BP 53, F-38041 Grenoble Cedex 9, France — ³Centro de Ciências Naturais e Humanas, Universidade Federal do ABC, 09210-170 Santo Andre SP, Brazil

PO7.12 WED 17:00

Use of cellulose whiskers from rice husk in polypropylene nanocomposites — •SIMONE M. L. ROSA, NOOR REHMAN, MARIA I. G. MIRANDA, CLARA I. D. BICA, and SÔNIA M. B. NACHTIGALL — Instituto de Química- Universidade Federal do Rio Grande do Sul- Porto Alegre- Brasil

PO7.13 WED 17:00

The Size Dependence of Nanodrops Surface Tension

— •GEORGY V. KHARLAMOV¹, ANDREY A. ONISCHUK², SERGEY V. VOSEL², and PEOTR A. PURTOV² — ¹Novosibirsk State Technical University, Novosibirsk, Russia — ²Institute of Chemical Kinetics and Combustion of RAS, Novosibirsk, Russia

PO7.14 WED 17:00

In-situ characterization of silicon nanosheets grown on Ag(111) — •CARLO GRAZIANETTI^{1,2}, DANIELE CHIAPPE¹, GRAZIA TALLARIDA¹, MARCO FANCIULLI^{1,2}, and ALESSANDRO MOLLE¹ — ¹Laboratorio MDM, IMM-CNR, via C. Olivetti 2, I-20864 Agrate Brianza (MB), Italy — ²Dipartimento di Scienza dei Materiali, Università degli Studi di Milano Bicocca, via R. Cozzi 53, I-20126, Milano (MI), Italy

PO7.15 WED 17:00

Characterization of Ecofriendly Silver Nanoparticles Produced with Different Fungi — •DANIELA BALLOTTIN¹, PRISCYLA D. MARCATO², ANA O. DE SOUZA³, ALEXANDRE D. RODRIGUES³, NELSON DURÁN^{1,4}, and LJUBICA TASIC¹ — ¹Biol. Chem. Lab., Chemistry Institute, UNICAMP, Campinas, Brazil — ²Solid State Chemistry Laboratory, Chemistry Institute, UNICAMP, Campinas, Brazil. — ³Biochem. Biophys. Lab., Butantan Institute, Sao Paulo, Brazil — ⁴CCNH, UFABC, Santo Andre, Brazil

PO7.16 WED 17:00

In situ XRD and SAXS study of hexagonal ordered mesoporous PtRu nanoparticles electrodeposited from lyotropic liquid crystalline phases — LIANG YU-CHIA, JUAN YU-WAN, JENG U-SER, LIU CHIN-LUNG, SHEU HWO-SHUENN, LU KUEIH-TZU, and •CHEN JIN-MING — National Synchrotron Radiation Research Center

PO7.17 WED 17:00

A Comparative study of Al-Al₂O₃ Micro- and Nanocomposites Prepared by Powder Metallurgy Route — KHUSBU DASH, •DEBASIS CHAIRA, and BANKIM RAY — Department of Metallurgical & Materials Engineering, National Institute of Technology Rourkela, India

PO7.18 WED 17:00

Production of Highly Monodisperse Gold Nanoparticles in Polyaniline Matrix — •HIROSHI SHIIGI¹, RYOSUKE MORITA¹, YUSUKE MURANAKA¹, HISASHI MORISHITA¹, YOJIRO YAMAMOTO², SHIHO TOKONAMI¹, and TSUTOMU NAGAOKA¹ — ¹Osaka Prefecture University, Sakai, Japan — ²GreenChem, Sakai, Japan

PO7.19 WED 17:00

enzymatic hydrolysis combined with high pressure homogenization for obtain cellulose nanocrystals — •DANIELA MISSIANI RIDOLFI¹, ANA PAULA LEMES^{1,2}, and NELSON DURÁN^{1,3} — ¹Institute of Chemistry, Universidade Estadual de Campinas, Campinas, SP, Brazil. — ²Institute of Science and Technology, Universidade Federal de São Paulo, São José dos Campos, SP, Brazil. — ³Center of Natural and Human Sciences, Universidade Federal do ABC,

SP, Brazil.

PO7.20 WED 17:00

Fabrication of p-NiO/n-ZnO heterojunction nanorod arrays and improved photosensing performance — MING-GUAN CHEN¹, •RUEY-CHI WANG¹, and SHU-JEN CHEN² — ¹Department of Chemical and Materials Engineering, National University of Kaohsiung, Kaohsiung, Taiwan 81148 — ²Department of Chemical and Materials Engineering, National Kaohsiung University of Applied Sciences, Kaohsiung 80778, Taiwan

PO7.21 WED 17:00

Synthesis of CuO/Ag nanowire/nanoparticle core-shell nanocomposites and improved surface enhanced Raman scattering — SHU-WEI YANG¹, •RUEY-CHI WANG¹, and SHU-JEN CHEN² — ¹Department of Chemical and Materials Engineering, National University of Kaohsiung, Kaohsiung, Taiwan 81148 — ²Department of Chemical and Materials Engineering, National Kaohsiung University of Applied Sciences, Kaohsiung 80778, Taiwan

PO7.22 WED 17:00

Preparation and functionalization of novel fluorophore-free fluorescent magnetic silica nanoparticles — •SHU-JEN CHEN¹, CHI-CHUN FANG¹, and NAI-JEN CHENG² — ¹Department of Chemical and Materials Engineering, National Kaohsiung University of Applied Sciences, Kaohsiung 80778, Taiwan — ²Institute of Photonics and Communications, National Kaohsiung University of Applied Sciences, Kaohsiung 80778, Taiwan

PO7.23 WED 17:00

High-performance electrochemical capacitor based on MnO₂ nanowires/Ni foam as electrode with a novel Li-ion ionic liquid as electrolyte — DENG MING-JAY¹, CHEN JIN-MING¹, •LU KUEIH-TZU¹, CHANG JENG-KUEI², WANG CHENG-CHIA³, and CHEN KAI-WEN³ — ¹National Synchrotron Radiation Research Center, Hsinchu 30076, Taiwan — ²Institute of Materials Science and Engineering, National Central University, Taoyuan, Taiwan — ³Department of Applied Science, National Hsinchu University of Education, Hsinchu, Taiwan

PO7.24 WED 17:00

Nanoparticle Patterning On Branched Morphologies Of Polyethylene Glycol (PEG): Spin Rate Effect And Nanoparticle Coalescence At Low Temperature — •MARIELA J. PAVAN and ROY SHENHAR — The Hebrew University of Jerusalem, Jerusalem, Israel

PO7.25 WED 17:00

Supramolecular Comb Polymer Structure and Unique Mesomorphic Behavior Induced by Stacking Interactions Between Poly(2-Vinyl Pyridine) and Palladium Pincer Surfactants in the Solid State — •INBAL DAVIDI¹, ARTYOM SEMIONOV², DAVID EISENBERG¹, GIL GOOBES², and ROY SHENHAR¹ — ¹The Institute of Chemistry, the Center for Nanoscience and Nanotechnology, and the Lise Meitner-Minerva Center for Computational Quantum Chemistry, The Hebrew Univer-

sity of Jerusalem, Jerusalem 91904, Israel — ²Department of Chemistry, Bar-Ilan University, Ramat Gan 52900, Israel

PO7.26 WED 17:00

performance evaluation of nanofiber coated air filters for dust spot removal — ●ASGHAR SADIGHZADEH¹, PEGAH AZIMZADEH², AKBAR GAZMEH³, and BEHZAD REZAEI FARD⁴ — ¹Nuclear Science and Technology Research Institute, P.O Box 11365-3486, Tehran, Iran — ²Chemistry Department, Zanjan University, P O Box 45195-313, Zanjan, Iran — ³Amir kabir University of Technology, P.O.Box15875-4413, Tehran, Iran — ⁴Nuclear Science and Technology Research Institute, P.O Box 11365-3486, Tehran, Iran

PO7.27 WED 17:00

Spin-glass behaviour of microwave synthesized BiFeO₃ multiferroic micro-cubes — ●KATARZYNA POGORZELEC-GLASER¹, K. CHYBCZYŃSKA¹, B. ANDRZEJEWSKI¹, B. LESKA², R. PANKIEWICZ², and P. CIELUCH³ — ¹Institute of Molecular Physics, Polish Academy of Science, Smoluchowskiego 17, PL-60179 Poznań, Poland — ²Adam Mickiewicz University, Faculty of Chemistry, Grunwaldzka 6, PL-60780 Poznań, Poland — ³Institute of Plant Protection, National Research Institute, Wegorka 20, PL-60318 Poznań, Poland

PO7.28 WED 17:00

Role of surface forces in the supramolecular organization of polyoxometalate-DODA inorganic-organic hybrid materials — ●GIJO RAJ, COLAS SWALUS, MICHEL DEVILLERS, and ERIC M. GAIGNEAUX — Institute of Condensed Matter and Nanosciences, Division MOlecules Solids and Reactivity, Université catholique de Louvain, B-1348, Louvain-la-Neuve, Belgium

PO7.29 WED 17:00

Properties of carbon nanostructures formed by pecvd from co gas — ●SERGEY DUBKOV, DMITRY GROMOV, DMITRY SMIRNOV, and VYACHESLAV GALPERIN — MIET, Zelenograd, Russia

PO7.30 WED 17:00

Formation features of array silver clusters from thin film on SiO₂ surface. — ●OLGA PYATILOVA¹, DMITRY GROMOV¹, ALEXEY BELOV¹, and SERGEY BULYARSKY² — ¹MIET, Zelenograd, Russia — ²ULSU, Ulyanovsk, Russia

PO7.31 WED 17:00

Growth of Shape-Selected Metal Nanocrystals on oxide surface — ●FABIEN SILLY¹ and MARTIN CASTELL² — ¹CEA, IRAMIS, SPCSI, HyMN, F-91191 Gif sur Yvette, France — ²Department of Materials, University of Oxford, Parks Road, OX1 3PH Oxford, UK

PO7.32 WED 17:00

Synthesis of Thiolate-Protected Silver Nanocrystals from Organometallic Precursors and their Characterization — ●AMANDINE ANDRIEUX and ALEXA COURTY — Laboratoire des Matériaux Mésoscopiques et Nanométriques (LM2N), UMR C.N.R.S. 7070, Université

Pierre et Marie Curie, BP 52, 4 place Jussieu, 75252 Paris Cedex 05, France

PO7.33 WED 17:00

Flash microwave preparation of water dispersible magnetic nanorods versus spherical nanoparticles for multiparametric biosensing — ●IRENA MILOSEVIC¹, CAROLINE DE MONTFERRAND¹, HICHAM JOUNI¹, CATALINA DAVID¹, NICOLE LIÈVRE², DOMINIQUE BONNIN³, and LAURENCE MOTTE¹ — ¹CSPBAT UMR 7244, 74 rue Marcel Cachin, 93017 Bobigny, France — ²UPRES 3410 Biothérapies Bénéfiques et Risques, Bobigny, France — ³LPEM-ESPCI, 10 rue Vauquelin, 75231 Paris, France

PO7.34 WED 17:00

NaCl multi-layer islands grown on Au(111) probed by scanning tunneling microscopy — ●XIAONAN SUN^{1,2} and FABIEN SILLY³ — ¹ITODYS- CNRS-UMR 7086, University of Paris Diderot, 75205 Paris, France — ²Zernike Institute for Advanced Materials, University of Groningen, Nijenborgh 4, NL-9747 AG Groningen, the Netherlands — ³CEA, IRAMIS, SPCSI, HyMN F-91191 Gif sur Yvette, France

PO7.35 WED 17:00

Ferroelectric SBT-nanoceramic layers synthesized by sol-gel method for FRAM — ●ALINA SEMCHENKO¹, VITALY SIDSKY¹, VLADIMIR GAISHUN¹, VLADIMIR KOLOS², ARKADY TURTSEVICH², SERGEI SOROKA², and ANDREY ASADCHYI² — ¹F. Skorina Gomel State University, 246019 Sovetskaya st. 104, Gomel, Belarus; — ²JSC "Integral", 220108, Minsk, Belarus

PO7.36 WED 17:00

Size-controlled synthesis of fluorescent gold nanoparticles stabilized by polyethylene glycol for biomedical application — ●REDA KUBILIUTE¹, NERIJUS DZINGELEVICIUS², AKVILE SLEKTAITE¹, MARIJA MATULIONYTE¹, and RICARDAS ROTOMSKIS^{1,3} — ¹Biomedical Physics Laboratory of Institute of Oncology, Vilnius University, Baublio 3b, LT-08406, Vilnius, Lithuania — ²Department of Bioelectrochemistry and Biospectroscopy, Institute of Biochemistry, Vilnius University, Mokslininku 12, LT-08662 Vilnius, Lithuania — ³Biophotonics Group of Laser Research Center, Vilnius University, Sauletekio 9, c.3, LT-10222 Vilnius, Lithuania

PO7.37 WED 17:00

Preparation and Characterization of a New Composite Based upon CdTe Nanoparticles Self-Supported in Delaminated Hydrocalumites — ●ELENA PÉREZ^{1,2,3}, MARIA CINTA PUJOL¹, YOLANDA CESTEROS², LLUÍS FRANCESC MARSAL³, PILAR SALAGRE², JOSEP PALLARES³, MAGDALENA AGUILO¹, and FRANCESC DIAZ¹ — ¹Física i Cristal·lografia de Materials i Nanomaterials (FICMA-FiCNA), EMAS, Univ. Rovira i Virgili (URV), Campus Sescelades, Marcel·li Domingo, s/n, E-43007 Tarragona, Spain. — ²Dept. Química Física i Inorgànica, EMAS, Univ. Rovira i Virgili (URV), Campus Sescelades, Marcel·li Domingo, s/n, E-43007 Tarragona,

Spain — ³Dept. Enginyeria Electronica, EMAS, Univ. Rovira i Virgili (URV), Campus Sescelades, Avda. Paisos Catalans, 26, E-43007 Tarragona, Spain.

PO7.38 WED 17:00

Nanoparticle Synthesis Using a High Power Pulsed Hollow Cathode — ●IRIS PILCH¹, DANIEL SÖDERSTRÖM¹, ULF HELMERSSON¹, and NILS BRENNING² — ¹Linköping University, Plasma & Coatings Physics Division, IFM-Materials Physics, SE-581 83 Linköping, Sweden — ²Royal Institute of Technology, School of Electrical Engineering, Division Space & Plasma Physics, SE-10044 Stockholm, Sweden

PO7.39 WED 17:00

Nanostructure photocatalytic titanium oxide sol-gel films doped cerium — ●VLADIMIR GAISHUN, DMITRY KOVALENKO, MARINA KOLEDA, ALINA SEMCHENKO, YANINA KOSENOK, and OLGA TULENKOVA — Francisk Skrina Gomel State University, Gomel, Belarus

PO7.40 WED 17:00

Structural comparison of catalytic gauzes obtained by casting and nanopowder metallurgy — JOANNA ZDUNEK¹, ●BOGUSŁAWA ADAMCZYK-CIEŚLAK¹, PAWEŁ SUCHORAB¹, JAROSŁAW MIZERA^{1,2}, HALINA GARBACZ¹, ZBIGNIEW LASKOWSKI³, and MACIEJ GIEREJ³ — ¹Warsaw University of Technology Faculty of Materials Science and Engineering, Warsaw, Poland — ²Functional Materials Research Centre, Warsaw University of Technology, Warsaw, Poland — ³Precious Metal Mint, Warsaw, Poland

PO7.41 WED 17:00

Influence of Ni contents on the sinterability of PdNi nanopowders — ●JOANNA ZDUNEK¹, PAWEŁ SUCHORAB¹, JAROSŁAW MIZERA^{1,2}, HALINA GARBACZ¹, ZBIGNIEW LASKOWSKI³, and MACIEJ GIEREJ³ — ¹Warsaw University of Technology, Faculty of Materials Science and Engineering, Warsaw, Poland — ²Functional Materials Research Centre, Warsaw University of Technology, Warsaw, Poland — ³Precious Metal Mint, Warsaw, Poland

PO7.42 WED 17:00

Is the Si(111)(5x2)-Au reconstruction what we think it is? — ●JAAP KAUTZ¹, SEBASTIAN M. SCHRAMM¹, RUDOLF M. TROMP^{1,2}, and SENSE JAN VAN DER MOLEN¹ — ¹Leiden University, Leiden, the Netherlands — ²IBM T.J. Watson Research Center, Yorktown Heights, USA

PO7.43 WED 17:00

Luminescence characterization of nanocrystalline (Yb,Tm):Lu₂O₃ on SiO₂ microspheres — ●WILLIAM BARRERA¹, MARIA CINTA PUJOL¹, CONCEPCIÓN CASCALES², JOAN JOSEP CARVAJAL¹, XAVIER MATEOS¹, ADOLFO SPEGHINI³, MARCO BETTINELLI³, MAGDALENA AGUILÓ¹, and FRANCESC DIAZ¹ — ¹Física i Cristal·lografia de Materials i Nanomaterials (FiCMA-FiCNA)-EMaS, Universitat Rovira i Virgili (URV), Campus Sescelades, c/ Marcel·lí Domingo, s/n, E-43007 Tarragona, Spain — ²Instituto de Ciencia de Materiales de Madrid, CSIC, Calle Sor Juana Inés de la Cruz, Cantoblanco, E-28049 Madrid, Spain —

³Dipartimento di Biotecnologie, Università di Verona and INSTM, UdR Verona, Ca' Vignal, Strada Le Grazie 15, 37134 Verona, Italy

PO7.44 WED 17:00

Crystallinity Segregation from Self-Assembling of Single Crystalline Gold Nanocrystals in Colloidal Solution — ●HERVÉ PORTALÈS¹, NICOLAS GOUBET¹, LUCIEN SAVIOT², EUGÈNE DUVAL³, ALAIN MERMET³, and MARIE-PAULE PILENI¹ — ¹Université Pierre et Marie Curie and C.N.R.S., Paris, France — ²Université de Bourgogne and C.N.R.S., Dijon, France — ³Université Claude Bernard and C.N.R.S., Villeurbanne, France

PO7.45 WED 17:00

Half-metallic antiferromagnets nature of Sr₂O_sMoO₆ from ab initio calculations — ●MARIEM OUCHRI — Mohammed 5 University, Faculty of science, Rabat, Morocco

PO7.46 WED 17:00

Coherent Spin Precession via Photo-induced Antiferromagnetic Interactions in La_{0.67}Ca_{0.33}MnO₃ — ●GUNTER LÜPKE¹, XIN MA¹, HAIBIN ZHAO², YUHANG REN³, QI LI⁴, ADYAM VENIMADHAV⁴, and DIYAR TALBAYEV⁵ — ¹College of William & Mary, Williamsburg, USA — ²Fudan University, Shanghai, China — ³Hunter College of the City University of New York, New York, USA — ⁴Pennsylvania State University, Pennsylvania, USA — ⁵Tulane University, New Orleans, USA

PO7.47 WED 17:00

Ballistic Electron Magnetic Microscopy: Towards the Nanometer Scale — ●MARIE HERVÉ, SYLVAIN TRICOT, SOPHIE GUÉZO, GABRIEL DELHAYE, BRUNO LÉPINE, PHILIPPE SCHIEFFER, and PASCAL TURBAN — Département Matériaux Nanosciences, Université Rennes I; CNRS, UMR 6251, Campus de Beaulieu, Bât. 11C, 35042 Rennes cedex; France

PO7.48 WED 17:00

Intramolecular spin transfer in the endofullerenes of lanthanides — ●ALEXEY KRISILOV and BORIS ZON — Voronezh State University, Voronezh, Russia

PO7.49 WED 17:00

The effects of an external electric field on thermal entanglement in a three-qubit system — ●SAHIB BABAEE TOOSKI^{1,2}, BOGDAN BULKA¹, and ANTON RAMSAK² — ¹Institute of Molecular Physics, Polish Academy of Sciences, ul. M. Smoluchowskiego 17, Poznan, Poland — ²Faculty of Mathematics and Physics, University of Ljubljana, Ljubljana, Slovenia and Jozef Stefan Institute, Ljubljana, Slovenia

PO7.50 WED 17:00

Magneto-elastic coupling in magnetic thin films deposited onto deformable substrate — ●WIEM KARBOUL TROJET, DAMIEN FAURIE, YVES ROUSSIGNÉ, and SALIM MOURAD CHÉRIF — LSPM (CNRS-UPR 3407), Université Paris 13, 99 avenue Jean-Baptiste Clément, 93430

Villetaneuse, France

PO7.51 WED 17:00

Dynamic PFMT Non-Local CPA Applied to Disordered Nanomagnetic Systems — ●DORIED GHADER^{1,2} and ANTOINE KHATER¹ — ¹Laboratoire de Physique de l'Etat Condensé UMR 6087, Université du Maine, F-72085 Le Mans, France — ²Department of Physics, Faculty of Science, Lebanese University, Hadath-Beirut, Lebanon

PO7.52 WED 17:00

Microstructural Characterization and magnetic study of nanostructured/amorphous Ni₅₈Fe₁₂Zr₂₀-xHf_x=0, 10, 20 B10 powders prepared by mechanical alloying — ●REZA BESMEL¹ and HOOMAN SHOKROLLAHI² — ¹Islamic Azad University, Ahvaz branch, Ahvaz, Iran — ²Electroceramics Group, Materials Science and Engineering Department, Shiraz University of Technology, Shiraz, Iran

PO7.53 WED 17:00

Influence of milling time on the structural, microstructural and magnetic properties of mechanically alloyed Ni₅₈Fe₁₂Zr₁₀Hf₁₀B₁₀ nanostructured/ amorphous powders — ●REZA BESMEL¹ and HOOMAN SHOKROLLAHI² — ¹Islamic Azad University, Ahvaz branch, Ahvaz, Iran — ²Electroceramics Group, Materials Science and Engineering Department, Shiraz University of Technology, Shiraz, Iran

PO7.54 WED 17:00

Exchange Bias properties of MnFe₂O₄ Ferrofluid Nanoparticles — ●FRANCISCARLOS GOMES DA SILVA^{1,2}, RENATA AQUINO¹, JEROME DEPEYROT¹, FRANCISCO AUGUSTO TOURINHO¹, REGINE PERZYNSKI², VICTOR I STEPANOV³, and YURIY RAIKHER³ — ¹Universidade de Brasilia, Brasilia, Brasil — ²Université Pierre et Marie

Curie, Paris, France — ³Institute of Continuous Media, Perm, Russia

PO7.55 WED 17:00

Dynamical Nuclear Polarization of Low Dimensional Nanostructures — ●IONEL TIFREA — California State University, Fullerton, CA 92835, USA

PO7.56 WED 17:00

First-principles Calculations on the Electronic Structure of Bulk and Surface ZnO Divacancies — ●EUN-HA SHIN and HANCHUL KIM — Sookmyung Women's University, Seoul 140-742, South Korea

PO7.57 WED 17:00

Nonlinear Anomalous Hall Effect and Negative Magnetoresistance in Two-Dimensional Electron Gas with Random Spin-Orbit Interaction — ●VITALII DUGAEV^{1,2}, MICHAL INGLOT², EVGENY SHERMAN³, JAMAL BERAKDAR¹, and JOZEF BARNAS⁴ — ¹Martin-Luther-Universität Halle-Wittenberg, Halle, Deutschland — ²Department of Physics, Rzeszow University of Technology, Rzeszow, Poland — ³Department of Physical Chemistry, Universidad del Pais Vasco, Bilbao, Spain — ⁴Department of Physics, Adam Mickiewicz University, Poznan, Poland

PO7.58 WED 17:00

How the technology environment affects the magnetic anisotropy and Kondo Screening of a high-spin atom — ●JENNY C. OBERG^{1,2}, M. REYES CALVO¹, FERNANDO DELGADO³, JOAQUIN FERNANDEZ-ROSSIER³, and CYRUS F. HIRJIBEHEDIN^{1,2,4} — ¹London Centre for Nanotechnology, UCL, UK — ²Department of Physics & Astronomy, UCL, UK — ³International Iberian Nanotechnology Laboratory, Braga, Portugal — ⁴Department of Chemistry, UCL, London, UK

PO8: Poster Session 8: Novel nanomaterials and self-organisation II / Spintronics and nanomagnetism II

Time: Wednesday 17:00–19:00

Location: PO Arches

PO8.1 WED 17:00

Microstructure and electrical behavior of Ag-nanoparticles-based solderings — ●YANA VENIAMINOVA^{1,2}, JOSEPH SCOLA¹, EDDY DUMAS², and CÉDRIC MAYER² — ¹Groupe d'Etude de la Matière Condensée, UMR 8635 du C.N.R.S., Versailles, France — ²Institut Lavoisier de Versailles, UMR 8180 du C.N.R.S., Versailles, France

PO8.2 WED 17:00

Sugar derivatives for the rational design of gold-polymer nanohybrids — ●STÉPHANE LEMONIER, JULIETTE FITREMANN, and JEAN-DANIEL MARTY — IMRCP UMR5623, Toulouse, France

PO8.3 WED 17:00

Preparation of Janus Silica Particles with Organo-Silane Compounds using Polystyrene Trapping

Layer — ●CHANG HUN LEE, WONKEUN CHUNG, and SUNG HYUN KIM — Korea University, Seoul, Korea

PO8.4 WED 17:00

Scanning Tunneling Potentiometry on the Au/Ge(001) Surface — ●CHRISTIAN A. BOBISCH¹, MARK R. KASPERS¹, ALEXANDER M. BERNHART¹, MATEUSZ WOJTASZEK², FRANCISZEK KROK², MAREK SZYMONSKI², and ROLF MÖLLER¹ — ¹Faculty of Physics, Center for Nanointegration Duisburg-Essen, University of Duisburg-Essen, 47048 Duisburg, Germany — ²Department of Physics of Nanostructures and Nanotechnology, Jagiellonian University, 30-059 Krakow, Poland

PO8.5 WED 17:00

Metalomesogens modified by electronoaccepting and electronodoner groups, used for functionalize metal nanoparticles. — ●PAULINA KRZYCZKOWSKA¹,

ADAM KRÓWCZYŃSKI¹, JADWIGA SZYDŁOWSKA¹, DAMIAN POCHĘCHA², and EWA GÓRĘCKA² — ¹University of Warsaw, Zwirki i Wigury 101, 02-089 Warsaw, Poland — ²University of Warsaw, Zwirki i Wigury 101, 02-089 Warsaw, Poland

PO8.6 WED 17:00

Focused ion beam magnetic patterning of fcc Fe films on Cu (100) — ●MICHAŁ URBANEK^{1,2}, PETR DVOŘÁK², MARTIN VEIS³, KAMIL POSTAVA⁴, ZBYNĚK NOVOTNÝ⁵, PETER VARGA^{1,5}, and TOMÁŠ ŠIKOLA^{1,2} — ¹Central European Institute of Technology, CEITEC, Brno University of Technology, Technická 10, 616 00 Brno, Czech Republic — ²Institute of Physical Engineering, Brno University of Technology, Technická 2, 61669 Brno, Czech Republic — ³Institute of Physics, Faculty of Mathematics and Physics, Charles University, Ke Karlovu 3, 12116 Prague, Czech Republic — ⁴Department of Physics, Technical University of Ostrava, 17. Listopadu 15, 70833 Ostrava-Poruba, Czech Republic — ⁵Institut für Angewandte Physik, Vienna University of Technology, 1040 Vienna, Austria

PO8.7 WED 17:00

Nanostencilling of metals on the Si(001) surface — ●NELSON TO and JUN NOGAMI — University of Toronto, Canada

PO8.8 WED 17:00

A New Approach in the Creation of Pure Silver Nanoparticles — ●JAOUAD GHAYMOUNI¹, BARTHÉLEMY CAGNEAU¹, SUAT TOPSU¹, YANA YUSHKEVICH², LUC CHASSAGNE¹, and CÉDRIC R. MAYER² — ¹LISV - Université de Versailles St. Quentin, Versailles, France — ²ILV - Université de Versailles St. Quentin, Versailles, France

PO8.9 WED 17:00

Synthesis and Cathodoluminescence of ZnS Nanocrystals — ●XIAODAN HU and HAIQIAN ZHANG — College of Material Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing, P.R. China

PO8.10 WED 17:00

Fabrication and magnetic properties of FeSi nanoparticles — ●CHIN SHAN LUE¹, T. W. LAN², and Y. Y. CHEN² — ¹Department of Physics, National Cheng Kung University, Tainan 70101, Taiwan — ²Institute of Physics, Academia Sinica, Taipei 11529, Taiwan

PO8.11 WED 17:00

Synthesis of Gold Nanoparticles with Catalytic Applications — ●SONIA MIHAI, OCTAV PANTEA, STELIAN NEAGOE, DANUTA GHITA, and ANDREEA BONDAREV — Petroleum and Gas University of Ploiesti, Bucharest Av. 39, 100680, Ploiesti, Romania

PO8.12 WED 17:00

Polymer / nanoparticle electrostatic interactions : from hydrophilic to hydrophobic materials — ●JEROME FRESNAIS¹, JEAN-FRANÇOIS BERRET², AUDE MICHEL¹, and CARINA SOTEBIER¹ — ¹Laboratoire PECSA

- UMR 7195 4 place Jussieu - cc51 - 75252 Paris cedex 05 — ²Laboratoire MSC - UMR 7057 10 rue Alice Domon et Léonie Duquet - 75205 Paris cedex 13

PO8.13 WED 17:00

Erbium doped TiO₂ nanofibers for thermo photovoltaic applications — PAUL THI VICTOR¹ and ●VICTOR JAYA NESAMONY² — ¹Department of Electronics and Instrumentation Engineering, Easwari Engineering college, Chennai * 600089, India — ²Department of Physics, Anna University, Chennai 600 025, India

PO8.14 WED 17:00

Synthesis, characterization of alloys nanocrystalline Fe_{1-x-y}Al_xCry Obtained by grinding high energy — ●CHATER RABAH¹ and CHAANBI DAOU² — ¹Laboratory of Inorganic Materials Chemistry, Chemistry Department, University Badji Mokhtar of Annaba, BP: 12, Algeria — ²Laboratory of Inorganic Materials Chemistry, Chemistry Department, University Badji Mokhtar of Annaba, BP: 12, Algeria

PO8.15 WED 17:00

Linear Polyethylenimine Prepared by Partial Acid Hydrolysis of Poly(2-ethyl-2-oxazoline) for DNA and siRNA Nanoparticle Delivery in vitro — JULIO C FERNANDES¹, XINGPING QIU², FRANCOIS M. WINNIK², MOHAMED BENDERDOUR¹, XIAOLING ZHANG³, KERONG DAI³, and ●QIN SHI¹ — ¹Sacré-Coeur Hospital of Montréal, University of Montréal, Montréal, Canada — ²Faculty of Pharmacy, University of Montréal, Montréal, Canada — ³Institute of Health Sciences, Chinese Academy of Science, Shanghai JiaoTong University, Shanghai, China

PO8.16 WED 17:00

Synthesis, characterization and electrochemical properties of vanadium pentoxide nanostructures for lithium-ion battery cathodes — ●LI-CHIA TIEN, YU-JYUN CHEN, and YI-CHEN HSU — Department of Materials Science and Engineering, National Dong Hwa University, Shoufeng, Hualien 974, Taiwan

PO8.17 WED 17:00

Thermal, magnetic and optical characteristics of ABS-Fe₂O₃ nanocomposites — ●GHOLAMREZA NABIYOUNI¹ and DAVOOD GHANBARI² — ¹Department of Physics, Faculty of Science, Arak University, Arak 38156-88349, Iran — ²Young researchers Club, Arak Branch, Islamic Azad University, Arak, Iran

PO8.18 WED 17:00

Application of Ag nanowires for fabrication of flexible transparent conductive electrode — ●JONG-WOONG KIM, SUNG-WON LEE, SUNG-JEI HONG, and MIN-GI KWAK — Korea Electronics Technology Institute, Seongnam, South Korea

PO8.19 WED 17:00

FePc/Au(111) interface electronic structure investigated by high-resolution photoemission spectroscopy — SARA FATALE, ●PIERLUIGI GARGIANI, CARLO

MARIANI, and MARIA GRAZIA BETTI — Università di Roma "La Sapienza", Roma, Italy

PO8.20 WED 17:00

Observing and Resolving Topological Edge States of Single Bilayer Bi(111) Islands: Spatial and Energy Distribution — •CHUNLEI GAO¹, FANG YANG¹, LIN MIAO¹, ZHENGFENG WANG², MENGJU YAO¹, FENGFENG ZHU¹, YANRU SONG¹, MEIXIAO WANG¹, JINPENG XU¹, ALEXEI FEDOROV³, Z SUN⁴, GB ZHANG⁴, CANHUA LIU¹, FENG LIU², DONG QIAN¹, and JINFENG JIA¹ — ¹Key Laboratory of Artificial Structures and Quantum Control (Ministry of Education). Department of Physics, Shanghai Jiao Tong University, 800 Dong Chuan Road, Shanghai 200240, China — ²Department of Materials Science & Engineering, University of Utah, Salt Lake City, Utah 84112, USA — ³Advanced Light Source, Lawrence Berkeley National Laboratory, Berkeley, California 94305, USA — ⁴National Synchrotron Radiation Laboratory, University of Science and Technology of China, Hefei, 230026, China

PO8.21 WED 17:00

Topologically Self-Organized Nanocluster Systems of Disordered Covalent Solids: on the Molecular-Network Transition in Binary As-S Alloys — •OLEH SHPOTYUK^{1,2} and LYUBOV SHPOTYUK¹ — ¹Lviv Scientific Research Institute of Materials, Lviv, Ukraine — ²Institute of Physics of Jan Dlugosz University, Czestochowa, Poland

PO8.22 WED 17:00

Initial Reaction of Si on Ni(111) Surface Studied by Scanning Tunneling Microscopy — •TSUNEO FUKUDA¹ and KENJI UMEZAWA² — ¹Osaka City University, Osaka, Japan — ²Osaka Prefecture University, Osaka, Japan

PO8.23 WED 17:00

Problems of Multilayer Nanofilm Growth — •NIKOLAY PLUSNIN — Institute of Automation and Control Processes, Vladivostok, Russia

PO8.24 WED 17:00

AES-EELS Study of the Growth of Cu/Fe-Si Multi-Layer Nanofilms on Si (001) — VLADIMIR ILYASHCHENKO^{1,2}, •SERGEY KITAN^{1,2}, NIKITA TARIMA^{1,2}, and NIKOLAY PLUSNIN^{1,2} — ¹Institute of Automation and Control Processes, Vladivostok, Russia — ²Vladivostok State University of Economics and Service, Vladivostok, Russia

PO8.25 WED 17:00

AFM Study of Cu/Fe Nanofilms on Si(001) under their Air Exposition — •SERGEY KITAN^{1,2}, VLADIMIR ILYASHCHENKO^{1,2}, NIKITA TARIMA^{1,2}, and NIKOLAY PLUSNIN^{1,2} — ¹Institute of Automation and Control Processes, Vladivostok, Russia — ²Vladivostok State University of Economics and Service, Vladivostok, Russia

PO8.26 WED 17:00

Magnetic and optic properties of cobalt and semiconductor nanoparticles — •KAROLINA MADRAK¹, EWA GÓRĘCKA¹, JACEK SZCZYTKO², and NATAŠA

VAUPOTIČ³ — ¹Department of Chemistry, Warsaw University, Al. Zwirki i Wigury 101, 02-089 Warsaw, Poland — ²Faculty of Physics, University of Warsaw, Hoza 69, 00-681 Warsaw, Poland — ³Institute of Physics, Faculty of Natural Sciences and Mathematics, University of Maribor, Koroška 160, Maribor, Slovenia

PO8.27 WED 17:00

New Insights into Synthesis of Metal Nanoparticles in Aqueous Solutions: Mesoscale Liquid Intermediates and Highly Concentrated Colloidal Solutions — •YURI MIKHLIN^{1,2}, SVETLANA SAYKOVA², MAXIM LIKHATSKI¹, ANTON KARACHAROV¹, ALEXANDER ROMANCHENKO¹, SERGEY VOROBYEV², and ELENA VISHNYAKOVA² — ¹Institute of Chemistry and Chemical Technology of Siberian Branch of Russian Academy of sciences, Krasnoyarsk, Russia — ²Siberian Federal University, Krasnoyarsk, Russia

PO8.28 WED 17:00

Calculation of the Dynamic Vibrational Properties of the Pd/Au(111) Ordered Surface Alloy in the Stable Domain — RABAH CHADLI^{1,2} and •ANTOINE KHATER¹ — ¹Laboratoire de Physique de l'Etat Condensé UMR 6087, Université du Maine, F-72085 Le Mans, France — ²Laboratoire de Physique et Chimie Quantique, Faculté des Sciences, Université M. Mammeri de Tizi Ouzou, Algérie

PO8.29 WED 17:00

Synthesis and physical properties of Ni /NiO Nanocrystals — •HANAN ALCHAGHOURI¹ and JOHN THOMAS² — ¹School of Chemistry, The University of Manchester, Oxford Road, M13 9PL — ²School of Chemistry, The University of Manchester, Oxford Road, M13 9PL

PO8.30 WED 17:00

Study on the effects of Ultrasonic on Spark Plasma Discharge for Gold Nanoparticle Synthesis — •HAMID GHOMI¹, MAHDI YOUSEFI¹, and MANSOUR KHORAMABADI² — ¹Laser and Plasma Research Institute, Shahid Beheshti University, Evin, 1983963113, Tehran, Iran. — ²Department of Physics, Boroujerd Branch, Islamic Azad University, Boroujerd, Iran

PO8.31 WED 17:00

Nanofibers and Characterizations of Polypyrrole / Poly(Acrylonitrile-co-Methylacrylate) Composites — •YASEMIN YERLIKAYA¹ and SEZAI SARAC² — ¹Istanbul Technical University, Istanbul, Turkey — ²Istanbul Technical University, Istanbul, Turkey

PO8.32 WED 17:00

Characterization of metallic nanotube arrays synthesized in porous anodic aluminum oxide template — GABRIELA CALIN¹, EUGENIU VASILE², ROXANA TRUSCA², •GHEORGHE ZODIERIU¹, and FELICIA IACOMI¹ — ¹Al. I. Cuza University, Faculty of Physics, 11 Carol I Blvd., 7005006, Iasi Romania, — ²METAV CD, 31, C.A. Rosetti Street, Bucharest, Romania

PO8.33 WED 17:00

Phosphonate-Stabilized Silver Nanoparticles and Their Binding Properties — •YULIA CHAIKIN, TATIANA BENDIKOV, HAGAI COHEN, ALEXANDER VASKEVICH, and ISRAEL RUBINSTEIN — Weizmann Institute of Science, Rehovot, Israel

PO8.34 WED 17:00

— • SCHÖNBÄCHLER —

PO8.35 WED 17:00

Magnetic ground state of Co 1-D atomic chains investigated by scanning tunneling spectroscopy — •MARÍA MORO¹, DAVID SERRATE¹, MARTEN PIANTEK², JOSÉ IGNACIO PASCUAL³, and MANUEL RICARDO IBARRA¹ — ¹Instituto de Nanociencia de Aragón, University of Zaragoza, Spain — ²Instituto de Ciencia de Materiales de Aragón, CSIC-University of Zaragoza, Spain — ³Institut für Experimentalphysik, Freie Universität Berlin, Germany

PO8.36 WED 17:00

The laws of bulk elasticity in physical processes of effect of parameters (T-H-P) in metals, semiconductors, magnetodielectrics — •PETER POLYAKOV — Mining Processes Physics Institute, National Academy of Sciences of Ukraine, 72 R.Luxemburg Str., Donetsk, 83114, Ukraine

PO8.37 WED 17:00

Magnetic coercivity and nanostructure properties of (Fe₅₀Co₅₀)_{100-XVX=0,2,4} powders containing a small amount of Co₃V intermetallic obtained by mechanical alloying — •BEHZAD CHITSAZAN — Department of Materials Engineering, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran.

PO8.38 WED 17:00

Quantitative MRFM characterization of the autonomous and forced dynamics in a spin transfer nano-oscillator — •ABBASS HAMADEH¹, GRÉGOIRE DE LOUBENS¹, VLADIMIR NALETOV¹, JULIE GROLLIER², CHRISTIAN ULYSSE³, VINCENT CROS², and OLIVIER KLEIN¹ — ¹Service de Physique de l'Etat Condensé (CNRS URA 2464), CEA Saclay, Gif-sur-Yvette, France — ²Unité Mixte de Physique CNRS/Thales and Université Paris Sud 11, Palaiseau, France — ³Laboratoire de Photonique et de Nanostructures, Marcoussis, France

PO8.39 WED 17:00

Spin sensitive observations of optically orientated photocurrents — JUERONG LI¹, ADAM GILBERTSON², KONSTANTIN LITVINENKO¹, LESLEY COHEN², and •STEVEN CLOWES¹ — ¹Advanced Technology Institute, University of Surrey, Guildford, U.K. — ²Blackett Laboratory, Imperial College London, London, U.K.

PO8.40 WED 17:00

Scanning Tunneling Microscopy and Spectroscopy study of NdPc₂ on Cu(100) — •SARAH FAHRENDORF^{1,2}, CLAIRE BESSON^{1,2,3}, FRANK MATTHES^{1,2}, PAUL KÖGERLER^{1,2,3}, DANIEL E. BÜRGLER^{1,2}, and CLAUDIUS M. SCHNEIDER^{1,2} — ¹Peter Grünberg Institute (PGI-

6), Forschungszentrum Jülich, Jülich, Germany — ²JARA Jülich-Aachen-Research-Alliance, Forschungszentrum Jülich, Jülich, Germany — ³Institut für Anorganische Chemie, RWTH Aachen, Aachen, Germany

PO8.41 WED 17:00

Coupling Single Molecule Magnets to Ferromagnetic Substrates — ALBERTO LODI RIZZINI¹, CORNELIUS KRULL¹, •TIMOFEY BALASHOV¹, JERALD KAVICH¹, AITOR MUGARZA¹, PITER MIEDEMA², PARDEEP THAKUR³, VIOLETTA SESSI³, SVETLANA KLYATSKAYA⁴, MARIO RUBEN⁴, SEBASTIAN STEPANOW⁵, and PIETRO GAMBARDELLA¹ — ¹ICN, Barcelona, Spain — ²Utrecht University, Utrecht, The Netherlands — ³ESRF, Grenoble, France — ⁴Institute of Nanotechnology, KIT, Germany — ⁵Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany

PO8.42 WED 17:00

Magnetic excitations and spin-orbit coupling effects in Fe nanostructures supported on Cu and Cu₂N surfaces — •MANUEL DOS SANTOS DIAS, BENEDIKT SCHWEFLINGHAUS, and SAMIR LOUNIS — Peter Grünberg Institut and Institute for Advanced Simulation, Forschungszentrum Jülich and JARA, D-52425 Jülich, Germany

PO8.43 WED 17:00

Structural, magnetic and electronic correlation of Ag-Fe₃O₄ heterodimer nanoparticles. — •DIEGO MURACA¹, ABNER DE SIERVO², and KLEBER ROBERTO PIROTA¹ — ¹Universidade Estadual de Campinas-UNICAMP, Campinas, 13.084-859, SP, Brazil. — ²Laboratório Nacional de Luz Síncrotron, C.P. 6192, 13083-970, Campinas, SP, Brazil

PO8.44 WED 17:00

Study of Structural, morphological and optical properties of Sr*Fe*_(12-x)*Co*_xO₁₉ hexaferrite nanoparticles — •MORTEZA ZARGAR SHOUSHARI, EBRAHIM MOUSAVI GHAFHAROKHI, and FERESHTE RANJBAR — Shahid Chamran University of Ahvaz, Golestan Blvd. Ahvaz, I. R. Iran

PO8.45 WED 17:00

Self-Assembled Ferromagnetic Nanowires With Diameters Down To 3 nm Embedded In CeO₂/SrTiO₃(001) Grown By Pulsed Laser Deposition. — •FRANCISCO J. BONILLA¹, FRANCK VIDAL^{1,2}, YUNLIN ZHENG^{1,2}, DOMINIQUE DEMAILLE¹, PEDRO SCHIO^{1,3}, JULIAN MILANO^{2,4}, EMILIANO FONDA⁵, ADILSON J. A OLIVEIRA³, and VICTOR H. ETGENS¹ — ¹Institut des NanoSciences de Paris, UMR CNRS 7588, UPMC Univ Paris 6, 4 place Jussieu 75005 Paris, France — ²LIFAN, Laboratoire International Franco-Argentin en Nanosciences — ³Departamento de Física, UFSCar, C. P. 676, 13565-905 São Carlos, São Paulo, Brazil — ⁴CNEA-CONICET and Instituto Balseiro, CAB, UNCUB, R8402AGP San Carlos de Bariloche, RN, Argentina — ⁵Synchrotron Soleil, L'Orme des Merisiers Saint-Aubin, BP 48, 91192 Gif-sur-Yvette Cedex, France

PO8.46 WED 17:00

Fully metallic MnAs nano-clusters embedded in GaAs(001) — ●B. RACHE SALLES^{1,2}, J. CH. GIRARD³, C. DAVID³, F. OFFI⁴, F. BORGATTI⁵, M. EDDRIEF¹, V.H. ETGENS¹, L. SIMONELLI⁶, G. PANACCIONE², and M. MARANGOLO¹ — ¹Institut des NanoSciences de Paris, UPMC, CNRS UMR 7588, 4 place Jussieu, 75252 Paris Cedex 5, France — ²CNR Istituto Officina dei Materiali (IOM), Laboratorio TASC, S.S.14, Km 163.5, I-34149 Trieste, Italy — ³Laboratoire de Photonique de de Nanostructures, CNRS, route de Nozay, 91460 Marcoussis, France — ⁴CNISM and Dipartimento di Fisica, Università Roma Tre, Via della Vasca Navale 84, I-00146 Rome, Italy — ⁵CNR Istituto per lo Studio dei Materiali Nanostrutturati (ISMN), via P. Gobetti 101, I-40129 Bologna, Italy — ⁶European Synchrotron Radiation Facility (ESRF), B.P. 220, 38043 Grenoble, France

PO8.47 WED 17:00

Improved Properties of Buried NV Centers in Diamond with Nanometer Positioning — ●MARGARITA LESIK^{1,2}, SÉBASTIEN PEZZAGNA², VINCENT JACQUES³, ALEXANDRE TALLAIRE⁴, JOCELYN ACHARD⁴, ALIX GICQUEL⁴, JAN MEIJER², and JEAN-FRANÇOIS ROCH^{1,3} — ¹Laboratoire Aimé Cotton, Orsay, France — ²Rubion, Ruhr Universität Bochum, Bochum, Germany — ³Ecole Normale Supérieure de Cachan, Cachan, France — ⁴Laboratoire des Sciences des Procédés et des Matériaux, Villetaneuse, France

PO8.48 WED 17:00

Effect on the deposition conditions on the properties of nickel nanowires — ●ELENA MATEI¹, CAMELIA FLORICA¹, VICTOR KUNCSE¹, MARIA EUGENIA TOIMIL MOLARES², and IONUT ENCULESCU¹ — ¹National Institute of Materials Physics, Bucharest-Magurele, Romania — ²GSF Darmstadt, Germany

PO9: Poster Session 9: Semiconductor nanostructures

Time: Wednesday 17:00–19:00

Location: PO Gallery St Germain

PO9.1 WED 17:00

Photocatalytic degradation of anionic surfactant from aqueous solution by ZnO nano under the UV irradiation with Taguchi method — ●SANAZ TOUTOUNCHI, SIMA HABIBI, and MASOUD GIAHI — 1131, Moayedi Alley, Safary Alley, Bisooton Street, Rasht, Guilan, Iran

PO9.2 WED 17:00

Surface Morphology and Electrical Study of Nanostructured Porous Silicon Deposited by Nanolayers of Bromoaluminum Phthalocyanine on Exposure to CO₂ — ●MOHAMMAD ESMAEIL AZIM-ARAGHI and ZAHRA BISADI — Department of Physics, Tarbiat Moallem University, 43 Mofateh Ave., Tehran, Iran

PO9.3 WED 17:00

Patterning of thin film surfaces: effect of misfit stress on the morphology of ring-shaped and bilayer islands — ●JÉRÔME COLIN — Institut P', Université de Poitiers-CNRS, Département Physique et Mécanique des Matériaux, SP2MI-Téléport 2, F86962 Futuroscope-Chasseneuil cedex, France

PO9.4 WED 17:00

Local Photothermal Measurement by AFM around Grain Boundaries in Multicrystalline Si Solar Cell — KENJI HARA¹ and ●TAKUJI TAKAHASHI^{1,2} — ¹Institute of Industrial Science, The University of Tokyo, Tokyo, Japan — ²Institute for Nano Quantum Information Electronics, The University of Tokyo, Tokyo, Japan

PO9.5 WED 17:00

Morphology Control of Tetrapod ZnO Nanostructures — ●GEUN-HYOUNG LEE — Department of Materials & Components Engineering, Dong-eui University, Busan, Republic of Korea

PO9.6 WED 17:00

Self-assembled gold nanoparticles in patterned ZnO/Si heterojunction — CHEN-YU LIU, WEI-LUNG TSAI, and ●TSONG-SHENG LAY — Department of Photonics, National Sun Yat-Sen University, Kaohsiung, Taiwan

PO9.7 WED 17:00

Mechanical properties of silver nanowire using lateral force microscopy — ●KUEWHAN JANG¹, JIN-SUNG PARK¹, DOYEON BANG², SEUNGJOO HAAM², and SUNGSOO NA¹ — ¹Department of Mechanical Engineering, Korea University, Seoul 136-701, Republic of Korea — ²Department of Chemical and Biomolecular Engineering, Yonsei University, Seoul 120-749, Republic of Korea

PO9.8 WED 17:00

New numerical method to calculate the true optical absorption of hydrogenated nanocrystalline silicon thin films — ●FATIHA BESAHRAOUI, JAMAL EDDINE SIB, YAHIA BOUIZEM, and LARBI CHAHED — Department of Physics, Oran, Algeria

PO9.9 WED 17:00

The temperature and excitation intensity effects on the photoluminescence spectra of InAs /InP quantum dots — ●FATIHA BESAHRAOUI, M'HAMED BOUSLAMA, HAMAIDA KHEIRA, ZAKIA LOUNIS, and MOHAMED GHAFOR — Department of Chemistry Physics, Oran, Algeria

PO9.10 WED 17:00

Photo-Induced Nonlinearities in Fowler-Nordheim Plots for Field Emission of SiC Nanowires — ●STEFANIA CARAPEZZI¹, ANTONIO CASTALDINI¹, ANNA CAVALLINI¹, GIOVANNI ATTOLINI², and GIANCARLO SALVIATI² — ¹Dipartimento di Fisica, Università di Bologna, viale B. Pichat 6/2, Bologna, Italia — ²I.M.E.M.

C.N.R., Parco Area delle Scienze 37/A, Parma, Italia

PO9.11 WED 17:00

Nanostructured Tungsten Oxides (WO₃) For Biosensor and Supercapacitor Applications — ●HARIHARAN VENKATESAN¹ and SEKAR CHINNATHAMBI² — ¹Periyar University, Salem, India — ²Alagappa University, Karaikudi, India

PO9.12 WED 17:00

Electron transport in SiGe alloy nanowires in the ballistic regime from first-principles — MICHELE AMATO^{1,2}, STEFANO OSSICINI^{3,4}, and ●RICCARDO RURALI⁵ — ¹Laboratoire des Solides Irradiés, École Polytechnique, 91128 Palaiseau, France — ²Université Paris Sud, Laboratoire de Physiques des Solides, 91405 Orsay, France — ³Dipartimento di Scienze e Metodi dell'Ingegneria, Università di Modena e Reggio Emilia, Via Amendola 2 Pad. Morselli, I-42100 Reggio Emilia, Italy — ⁴Centro Interdepartmentale EnTech, Università di Modena e Reggio Emilia, Via Amendola 2 Pad. Morselli, I-42100 Reggio Emilia, Italy — ⁵Institut de Ciència de Materials de Barcelona (CSIC), Campus de la UAB, 08193 Bellaterra, Spain

PO9.13 WED 17:00

Dangling-bond wires on Si (100)-H 2x1 — ROBERTO ROBLES¹, MIKAËL KÉPÉNÉKIAN¹, FREDERICO NOVAES¹, ●NICOLÁS LORENTE¹, PETER SHARP², SAMUEL JARVIS², RICHARD WOOLLEY², and PHILIP MORIARTY² — ¹Centre d'Investigació en Nanociència i Nanotecnologia (CSIC-ICN), Campus de la UAB, E-08193 Bellaterra, Spain — ²School of Physics and Astronomy, University of Nottingham, Nottingham NG7 2RD, UK

PO9.14 WED 17:00

Nonlinear Intersubband Absorption and Bistability in Graded Semiconductor Heterostructures. — ●ANTONIO HERNANDEZ-CABRERA and PILAR ACEITUNO — Departamento Física Básica. Universidad de La Laguna. La Laguna, 38206-Tenerife. Spain.

PO9.15 WED 17:00

Dynamics of Electron Spin Polarization in Semiconductor Heterostructures with Charged Excitons. — ●PILAR ACEITUNO and ANTONIO HERNANDEZ-CABRERA — Departamento Física Básica. Universidad de La Laguna. La Laguna, 38206-Tenerife. Spain.

PO9.16 WED 17:00

Binding energies of excitons in wurtzite nitride semiconductor quantum dot under a weak electric field — ZUWEI YAN and ●LEI SHI — College of Science, Inner Mongolia Agricultural University, Hohhot 010018, P. R. China

PO9.17 WED 17:00

Enhanced Oxidation of Nanoscale In Particles at the Interface with a Si Nanowire — ●ELI SUTTER and PETER SUTTER — Center for Functional Nanomaterials, Brookhaven National Laboratory, Upton, New York 11973, USA

PO9.18 WED 17:00

Synthesis of ZnO nanostructures by microwave method: solvent effect — FELIX AVIÑA¹, THELMA SERRANO¹, ●IDALIA GOMEZ¹, and JOSE LUIS CAVAZOS² — ¹Facultad de Ciencias Químicas, Universidad Autónoma de Nuevo Leon, San Nicolas de los Garza, Mexico — ²Facultad de Ingeniería Mecánica y Eléctrica, Universidad Autónoma de Nuevo Leon, San Nicolas de los Garza, Mexico

PO9.19 WED 17:00

Solid Immersion Interference Lithography with Conformable Phase Mask — ●CHUN-HUNG LIN^{1,2}, YU-CHU LIN¹, and CHIA-CHING LIANG¹ — ¹Department of Photonics, National Cheng Kung University, Tainan 701, Taiwan — ²Advanced Optoelectronic Technology Center, National Cheng Kung University, Tainan 701, Taiwan

PO9.20 WED 17:00

Semi-insulating behavior of GaN layer grown on AlN nucleation layer — MIN-SU YI¹, HYO JUNG KIM², JAE HUN PARK³, and ●HYUN HWI LEE³ — ¹Department of Advanced Materials Science and Engineering, Kyungpook National University, Sang-Ju, Kyungbuk 742-711, Korea — ²Department of Materials Science and Engineering, Seoul National University, Seoul 151-742, Korea — ³Pohang Accelerator Laboratory, Pohang, Kyungbuk 790-784, Korea

PO9.21 WED 17:00

Two-photon excited quantum dots as energy donors for photosensitizer chlorin e6 — ARTIOM SKRIPKA¹, GEDIMINAS DAUDERIS¹, ●REDA KUBILIUTE¹, JURGA VALANCIUNAITE¹, VILIUS PODERYS¹, and RICARDAS ROTOMSKIS^{1,2} — ¹Biomedical Physics Laboratory of Institute of Oncology, Vilnius University, Baublio 3b, LT-08406, Vilnius, Lithuania — ²Biophotonics Group of Laser Research Center, Vilnius University, Sauletekio 9, c.3, LT-10222 Vilnius, Lithuania

PO9.22 WED 17:00

GaAs nanowire/ PEDOT:PSS hybrid solar cells with incorporating P3HT electron blocking layer — ●JIUN-JIE CHAO¹, SHU-CHIA SHIU¹, HONG-JHANG SYU¹, and CHING-FUH LIN^{1,2,3} — ¹Graduate Institute of Photonics and Optoelectronics, National Taiwan University, No. 1, Sec. 4, Roosevelt Road, Taipei 10617, Taiwan — ²Graduate Institute of Electronics Engineering, National Taiwan University, No. 1, Sec. 4, Roosevelt Road, Taipei 10617, Taiwan — ³Department of Electrical Engineering, National Taiwan University, No. 1, Sec. 4, Roosevelt Road, Taipei 10617, Taiwan

PO9.23 WED 17:00

Mechanisms of Germanium Nanowire Growth by MBE — ●MIROSLAV KOLIBAL^{1,3}, RADEK KALOUSEK¹, TOMAS PEJCHAL¹, ROLAND KOVÁCS¹, TOMAS VYSTAVEL², JINDRICH MACH^{1,3}, and TOMAS SIKOLA^{1,3} — ¹Institute of Physical Engineering, Brno University of Technology, Technická 2, 616 69 Brno, Czech Republic — ²FEI Company, Podnikatelská 6, 612 00 Brno, Czech Republic — ³CEITEC BUT, Brno University of Technology, Technická 10, 61669 Brno, Czech Republic

PO9.24 WED 17:00

Synthesis and property measurement of ZnO nanotubes — •JAEHUN PARK, HYUN HWI LEE, and SEONGHOON JUNG — Pohang Accelerator Laboratory, Pohang, KOREA (ROK)

PO9.25 WED 17:00

The Internal Structure And Residual Strain Distribution of CdSe/CdS Core/Shell Nanocrystals: A Raman Scattering Study — VOLODYMYR DZHAGAN¹, BENOIT DUBERTRET², ELSA CASSETTE², CLÉMENTINE JAVAUX², •RAUL D. RODRIGUEZ³, and DIETRICH R.T. ZAHN³ — ¹Institute of Semiconductor Physics of the National Academy of Sciences, Kyiv 03028, Ukraine — ²Laboratoire de Physique et d'Etude des Matériaux, UMR8213 du CNRS, ESPCI, 75005 Paris, France — ³Semiconductor Physics, Chemnitz University of Technology, D-09107 Chemnitz, Germany

PO9.26 WED 17:00

Selective growth of GaN single crystals at ion-beam-induced nucleation centers on SiO₂ surface at low deposition temperatures — •JINDŘICH MACH^{1,2}, TOMÁŠ ŠAMOŘIL^{1,2}, STANISLAV VOBORNÝ^{1,2}, MIROSLAV KOLÍBAL^{1,2}, PETR MAREŠ¹, JAN HULVA¹, and TOMÁŠ ŠIKOLA^{1,2} — ¹Institute of Physical Engineering, University of Technology Brno, Faculty of Mechanical Engineering, Technická 2, 616 69 Brno, Czech Republic — ²CEITEC BUT, Brno University of Technology, Technická 2, 616 69 Brno, Czech Republic

PO9.27 WED 17:00

Confined superconductivity studied by scanning tunneling spectroscopy: from the vortex lattice to the giant vortex — •LISE SERRIER-GARCIA, TRISTAN CREN, FRANÇOIS DEBONTRIDDER, CHRISTOPHE BRUN, and DIMITRI RODITCHEV — Institut des Nanosciences de Paris, Université Pierre et Marie Curie-Paris 6 and CNRS-UMR 7588, 4 place Jussieu, 75252 Paris, France

PO9.28 WED 17:00

Synthesis and characterization of WO₃ nanocrystals for optically sensing NH₃ — •MUHAMMAD USMAN QADRI^{1,2}, MARIA CINTA PUJOL², EDUARD LLOBET¹, JOSEP FERRE BORRULL², MAGDALENA AGUILO², and FRANCESC DIAZ² — ¹DEEEA, UNIVERSITAT ROVIRA I VIRGILI — ²FiCMA, UNIVERSITAT ROVIRA I VIRGILI

PO9.29 WED 17:00

Investigation of surface morphology and optoelectronics proprieties of monocrystalline silicon — •NESRINE BACHTOULI — Photovoltaic Laboratory, Research and Technology Centre of Energy, Borj-Cedria Science and Technology Park, BP 95, 2050 Hammam-Lif, Tunisia

PO9.30 WED 17:00

The Voltage Effect on Impedance of Polythiophene Obtained from Boron Trifluoride Diethyl Etherate Solution — •HACER DOLAS¹ and A.SEZAI SARAC^{1,2} —

¹Department of Chemistry, Polymer Science and Technology, Istanbul Technical University, Maslak 34469, Istanbul, Turkey — ²Department of Chemistry, Polymer Science and Technology, Istanbul Technical University, Maslak 34469,

PO9.31 WED 17:00

The effect of dielectric constant on electrochemical properties of copolymer 3,4-Ethylenedioxythiophene and p-TSP — •KEZIBAN HUNER¹, HACER DOLAS¹, and A.SEZAI SARAC^{1,2} — ¹Department of Chemistry, Istanbul Technical University, Maslak 34469, — ²Department of Chemistry, Polymer Science and Technology, Istanbul Technical University, Maslak 34469,

PO9.32 WED 17:00

Photoluminescence characterization in Al_xGa_{1-x}As/GaAs quantum wells grown on processed surfaces using Hanle effect — •JUAN HERNÁNDEZ-ROSAS¹, CONCEPCIÓN MEJÍA-GARCÍA², ANDREAS WINTER³, HARALD PASCHER³, ALEXANDER GILINSKY⁴, and MÁXIMO LÓPEZ-LÓPEZ⁵ — ¹Unidad Profesional Interdisciplinaria de Ingeniería y Tecnología Avanzada, IPN — ²Escuela Superior de Física y Matemáticas, Edificio de Física Avanzada, IPN — ³Experimentalphysik I, Universität Bayreuth — ⁴Institute of Semiconductor Physics SB RAS — ⁵Physics Department, Centro de Investigación y Estudios Avanzados del IPN

PO9.33 WED 17:00

Intercalated graphene on SiC — •MOUSUMI UPADHYAY KAHALY, T.P. KALONI, and U. SCHWINGENSCHOLEGL — KAUST, Saudi Arabia

PO9.34 WED 17:00

Co induced nanocrystals on Ge(001) — •TIJS MOCKING, GREGOR HLAWACEK, and HAROLD ZANDVLIET — Physics of Interfaces and Nanomaterials, MESA+ Institute for Nanotechnology, University of Twente, P. O. Box 217, 7500 AE Enschede, The Netherlands

PO9.35 WED 17:00

Emission properties of nanostructured GaN network: microcavity and plasmonic coupling effects — •VARUN THAKUR, MANOJ KESARIA, DARSHANA JOSHI, and SONNADA SHIVAPRASAD — Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur P.O., Bangalore-560064, India

PO9.36 WED 17:00

Cadmium Telluride (CdTe) Nanostructures By The Solvothermal Process: Controlling Crystal Structure and Morphology Aided by Different Solvents — •SHAHIN RANJBARZADEH — Sharif University of Technology, Tehran, Iran

PO9.37 WED 17:00

Nano-structuring of GaAs surface by energetic ion beam — •TANUJ KUMAR¹, S.A. KHAN¹, RATNESH K. PANDEY², S. VERMA¹, N. KUMAR¹, ASHISH KUMAR³, and D. KANJILAL¹ — ¹Inter-university Accelerator Cen-

tre, Aruna Asaf Ali Marg, New Delhi-110067, India —
²Nanotechnology Application Centre, University of Allahabad, Allahabad -211002, India — ³Department of Physics, Indian Institute of Technology, New Delhi-110016, India

PO9.38 WED 17:00

Preparation and characterization of CdS-BNT(thiol)/PVA ternary nanocomposite films — ●GEORGE R. S. ANDRADE¹, ERICK C. NEVES², GENELANE C. SANTANA¹, LEDJANE S. BARRETO^{1,2}, and IARA F. GIMENEZ^{1,3} — ¹Programa de Pós-Graduação em Ciência e Engenharia de Materiais, P2CEM, UFS. — ²Núcleo em Ciência e Engenharia de Materiais, NMA, UFS. — ³Departamento de Química, DQI, UFS.

PO9.39 WED 17:00

Synthesis, electrical and structural properties of Selenium nanofibres doped polyaniline nanocomposites — ●SHUMAILA AKRAM^{1,2}, MASOOD ALAM², AZHER M. SIDDIQUI¹, and M. HUSAIN¹ — ¹Department of Physics, Jamia Millia Islamia, New Delhi — ²Department of Applied Sciences, Jamia Millia Islamia, New Delhi

PO9.40 WED 17:00

Excitonic transitions in core-shell InP/ZnS quantum dots — ROBERTO CARLOS VÁSQUEZ-NAVA¹, MOISÉS ARREOLA-ZAMORA¹, DULCE LUCÍA LARA-GARCÍA¹, JOSÉ LUIS HERRERA-PÉREZ¹, JOSÉ FRANCISCO SÁNCHEZ-RAMÍREZ¹, JULIO GREGORIO MENDOZA-ÁLVAREZ², and ●JUAN HERNÁNDEZ-ROSAS¹ — ¹UPIITA-IPN, México D.F., México — ²Physics Department, CINVESTAV-IPN, México DF, México

PO9.41 WED 17:00

Modeling of the crystal structure growth process of GaAs — KULPASH ISKAKOVA¹ and ●RIF AKHMALTDINOV² — ¹Kazakh National Pedagogical University, Almaty, Kazakhstan — ²Kazakh National Pedagogical University, Almaty, Kazakhstan

PO9.42 WED 17:00

Electrical transport measurements of individual III-V semiconductor nanowires with reconstructed sidewalls — CORENTIN DURAND, ●MAXIME BERTHE, YOUNES MAKOUDI, THAN HAI NGUYEN, PHILIPPE CAROFF, JEAN-PHILIPPE NYS, and BRUNO GRANDIDIER — Institut d'Electronique, de Microélectronique et de Nanotechnologie, Villeneuve d'Ascq, France

PO9.43 WED 17:00

White Light Generation from Co-doped ZnSe Quantum Dots — ●RAJESH CHERUKUPALLI, CHINMAY PHADNIS, and SHAILAJA MAHAMUNI — Department of Physics, University of Pune, Pune 411 007, India.

PO9.44 WED 17:00

Mode-locking of a terahertz laser by direct phase synchronization — ●J. MAYSONNAVE¹, K. MAUSSANG¹, J.R. FREEMAN¹, N. JUKAM¹, P. CAVALIÉ¹, J. MANGENEY¹, S P. KHANNA², E. H. LINFIELD², A.G.

DAVIES², H.E. BEERE³, D.A. RITCHIE³, S.S. DHILLON¹, and J. TIGNON¹ — ¹Laboratoire Pierre Aigrain, Ecole Normale Supérieure, CNRS (UMR 8551), Université Paris P. et M. Curie, Université D. Diderot, 75005 Paris, France — ²School of Electronic and Electrical Engineering, University of Leeds, Leeds LS9 2JT, UK — ³University of Cambridge, Cavendish Lab, Cambridge CB3 0HE, UK

PO9.45 WED 17:00

Conduction Mechanisms in Sb₂Te₃ Thin Films — NEVIN KALKAN, HUSNU KARA, and ●KERIM ŞİMŞEK — Istanbul University, Science Faculty, Physics Department, Vezneciler, Istanbul

PO9.46 WED 17:00

Bolometer response to RF-modulated THz radiation of weakly-coupled GaAs/AlGaAs superlattice — ●GULYA RASULOVA¹, PAVEL BRUNKOV², IVAN PENTIN³, and GREGORY GOL'TSMAN⁴ — ¹P.N.Lebedev Physical Institute, Moscow, Russia — ²A.F.Ioffe Physical and Technical Institute, St.Petersburg, Russia — ³Moscow State Pedagogical University — ⁴Moscow State Pedagogical University

PO9.47 WED 17:00

GaN nanocrystalline films and nanostructures prepared by low energy nitrogen ion beam — ●STANISLAV VOBORNÝ, TOMÁŠ ŠAMOŘIL, TOMÁŠ NOVÁK, JINDŘICH MACH, LIBUŠE DITTRICHOVÁ, and TOMÁŠ ŠIKOLA — Institute of Physical Engineering, Brno University of Technology, Technická 2, Brno

PO9.48 WED 17:00

Structural and magnetic properties of ultrathin layers and nanoclusters of Fe₃Si epitaxially grown on GaAs — ●SANI NOOR¹, IGOR BARSUKOV², M. SAMET ÖZKAN¹, LINA ELBERS¹, NIKITA MELNICHAK², JÜRGEN LINDNER², MICHAEL FARLE², and ULRICH KÖHLER¹ — ¹Experimentalphysik IV, Ruhr-Universität Bochum, Germany — ²Experimentalphysik, Universität Duisburg-Essen, Germany

PO9.49 WED 17:00

Carbon nitride thin films and carbon nitride/conjugated polymer composites : Atomic Force Microscopy investigations and photocurrent generation — JOSHUA BYERS¹, CLAUDE DESLOUIS², ●ALAIN PAILLERET², and OLEG SEMENIKHIN¹ — ¹Department of Chemistry, The University of Western Ontario, London, Ontario, Canada — ²Laboratoire Interfaces et Systèmes Electrochimiques, UPR 15 du CNRS, UPMC Univ. Paris VI, Paris, France

PO9.50 WED 17:00

Investigations on Synthesis and Physicochemical Properties of PbTe Nanocrystals — ●SRIKANTH CHAKRAVARTHY^{1,4}, JAIME SANTOYO SALAZAR², MARIE PIERRE CROSNIER LOPEZ³, ALAIN BULO⁴, and MAURICIO ORTEGA LOPEZ⁵ — ¹Doctoral Program on Nanoscience and Nanotechnology, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN), No.2508 Av. IPN, Col. San Pe-

dro Zacatenco-C.P. 07360, Distrito Federal, Mexico —
²Departamento de Fisica, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN), No. 2508 Av. IPN, Col. San Pedro Zacatenco, C.P. 07360 Distrito Federal México. —
³Laboratoire des Oxydes et Fluorures (UMR CNRS 6010), Institut de Recherche en Ingénierie Moléculaire et Matériaux Fonctionnels (FR CNRS 2575), Faculté des Sciences et Techniques, Université du Maine, Av. O. Messiaen, 72085 Le Mans Cedex 9, France —
⁴Laboratoire de Physique de l'Etat Condensé, UMR-CNRS 6087, Institut de recherche en Ingénierie Moléculaire et Matériaux Fonctionnels, FR-CNRS 2575, Université du Maine, Avenue Olivier Messiaen, 72085 Le Mans Cedex 9, France —
⁵Sección de Electronica y Estado Solido, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN), No. 2508 Av. IPN, Col. San Pedro Zacatenco, C.P. 07360 Distrito Federal, México

PO9.51 WED 17:00

Synthesis and Characterization of Silver Telluride Nanomaterials — ●SRIKANTH CHAKARAVARTHY^{1,4}, MARIE PIERRE CROSNIER LOPEZ², JAIME SANTOYO SALAZAR³, ALAIN BULOUE⁴, and MAURICIO ORTEGA LOPEZ⁵ —
¹Doctoral Program on Nanoscience and Nanotechnology, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN), No.2508 Av. IPN, Col. San Pedro Zacatenco-C.P. 07360, Distrito Federal, Mexico —
²Laboratoire des Oxydes et Fluorures (UMR CNRS 6010), Institut de Recherche en Ingénierie Moléculaire et Matériaux Fonctionnels (FR CNRS 2575), Faculté des Sciences et Techniques, Université du Maine, Av. O. Messiaen, 72085 Le Mans Cedex 9, France —
³Departamento de Fisica, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN), No. 2508 Av. IPN, Col. San Pedro Zacatenco, C.P. 07360 Distrito Federal México —
⁴Laboratoire de Physique de l'Etat Condensé, UMR-CNRS 6087, Institut de recherche en Ingénierie Moléculaire et Matériaux Fonctionnels, FR-CNRS 2575, Université du Maine, Avenue Olivier Messiaen, 72085 Le Mans Cedex 9, France —
⁵Sección de Electronica y Estado Solido, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN), No. 2508 Av. IPN, Col. San Pedro Zacatenco, C.P. 07360 Distrito Federal, México

PO9.52 WED 17:00

First-principles study of electronic structure and magnetic properties of doped SnO₂ (rutile) with single and double impurities — ●ABDELMAJID FAKHIM LAMRANI^{1,2}, MOHAMED BELAICHE^{2,3,5}, ABDELILAH BENYOUSSEF^{1,3,5}, ABDALLAH EL KENZ¹, and E.H SAIDI^{3,4,5} —
¹Laboratoire de Magnétisme et de Physique des Hautes Energies (associé au CNRST), URAC,

Département de physique, B.P. 1014, Faculté des sciences, Université Mohammed V-Agdal, Rabat, Morocco —
²Laboratoire de Magnétisme, Matériaux Magnétiques, Micro-onde et Céramique. Ecole Normale Supérieure, Université Mohammed V-Agdal, B.P. 9235, Océan, Rabat, Morocco —
³Institute of Nanomaterials and Nanotechnology, MAScIR, Rabat, Morocco —
⁴Laboratoire de Physique des Hautes Energies Département de physique, B.P. 1014, Faculté des sciences, Rabat, Morocco —
⁵Hassan II Academy of Sciences and Technologies, Rabat, Morocco

PO9.53 WED 17:00

Optical and electrical properties of Ga doped ZnO thin films — ●GHEORGHE ZODIERIU¹, MIHAELA IRIMIA¹, PETRONELA ALICIA RAMBU¹, MARIUS DOBROMIR¹, DANIEL TIMPU², and FELICIA IACOMI¹ —
¹Faculty of Physics, "Al. I.Cuza" University of Iasi, 11 Carol I Blvd., 700506, Iasi, Romania —
²"Petru Poni" Institute of Macromolecular Chemistry, Alea Grigore Ghica Voda 41A, 700487, Iasi, Romania

PO9.54 WED 17:00

Transport properties of pure and Co doped zinc oxide nanowires — ●IONUT ENCULESCU¹, ELENA MATEI¹, CAMELIA FLORICA¹, MONICA ENCULESCU¹, and MARIA EUGENIA TOIMIL MOLARES² —
¹National Institute of Materials Physics, Bucharest, Magurele, Romania —
²GSi Darmstadt, Germany

PO9.55 WED 17:00

Optical Properties of Cd(1-x)Zn(x)S Solid Solutions Supported on Mesoporous Silica SBA-15, Photocatalysts for Hydrogen Production by Water Splitting — SILVIA MACIAS-SANCHEZ¹, YULIANA ACOSTA-SILVA¹, ●LUCERO GOMEZ-HERRERA¹, RUFINO NAVA¹, ALFREDO CRUZ-OREA², and SAUL ARIAS-CERON³ —
¹Faculty of Engineering. Autonomous University of Queretaro. University Center. Queretaro, Qro 76000. Mexico —
²Physics Department. Cinvestav-IPN. A.P. 14-740. Mexico DF 07000. Mexico —
³CICATA-IPN. Unidad Legaria. Legaria 694. Mexico DF 11500. Mexico

PO9.56 WED 17:00

Effect of lattice mismatch strain on the electronic properties of annealed InAs/GaAs quantum dots — ●MAKREM YAHYAOU¹, KARIM SELLAMI^{1,3}, CHRISTOPHE TESTELIN², MARIA CHAMARRO², and KAÏS BOUJDARIA¹ —
¹Laboratoire de Physique des Matériaux: Structures et Propriétés, Faculté des Sciences de Bizerte, Université de Carthage, Jarzouna, 7021 Bizerte, Tunisia —
²Institut des Nanosciences de Paris, UPMC Univ. Paris 06, CNRS-UMR 7588, 4 place Jussieu, 75005 Paris, France —
³Department of Applied Sciences, Higher College of Technology, PO Box 74, Al-Khuwair, Postal Code 133, Muscat, Sultanate of Oman

SO-8: Nanoparticles synthesis I

Chaired by D. Portehault, Paris, FR

Time: Thursday 8:30–10:15

Location: Amphi. Portier

Invited SO-8.1 THU 8:30
C/N- Nanomaterials for Artificial Photosynthesis, Electrocatalysis and Green Electronics — ●MARKUS ANTONIETTI — M.P.I. of Colloids and Interfaces, Potsdam, Germany

SO-8.2 THU 9:00
Nanoscience and Actinides: The World of Neglected Dimensions? — ●DAMIEN HUDRY¹, CHRISTOS APOSTOLIDIS¹, THOMAS GOUDER¹, EGLANTINE COURTOIS², CHRISTIAN KÜBEL², and OLAF WALTER¹ — ¹European Commission, Joint Research Center, Institute for Transuranium Elements, P.O. Box 2340, 76125 Karlsruhe, Germany. — ²Karlsruhe Institute of Technology, Institute of Nanotechnology, Hermann-von-Helmholtz-Platz 1, Building 640, 76344 Eggenstein-Leopoldshafen, Germany.

SO-8.3 THU 9:15
Morphology Study of Well-Ordered Titania Nanoparticles Obtained from PS-b-PEO by Sol-Gel Synthesis — ●GIANPAOLO CHIEFFI¹, ANTONIO ARONNE¹, FINIZIA AURIEMMA¹, CLAUDIO DE ROSA¹, ROCCO DI GIROLAMO¹, ESTHER FANELLI¹, MASSIMO LAZZARI², and PASQUALE PERNICE¹ — ¹University of Naples Federico II, Napoli, Italy — ²University of Santiago de Compostela, Santiago de Compostela, Spain

SO-8.4 THU 9:30
Synthesis of highly monodispersed ferrite nanoparticles from iron based pivalate complexes by thermal decomposition. — ●KHADIJAT ABDULWAHAB¹, MOHAMMED AZAD MALIK², and PAUL O'BRIEN³ — ¹School of chemistry, The University of Manchester, UK — ²School of Chemistry, The University of Manchester — ³School of Chemistry and the school of Materials, The University of Manchester

SO-8.5 THU 9:45
Electrospun ZnO nanofiber for sensor applications — ●VICTOR JAYA NESAMONY — Department of Physics, Anna University, Chennai 600 025, India

SO-8.6 THU 10:00
Piezoelectric nanorods for imaging of oil reserves — ●WAQQAR AHMED^{1,2}, CHRISTIAN GLASS¹, JEROEN P. ZONNEVELD¹, and JAN VAN RUITENBEEK¹ — ¹Kamerlingh Onnes Laboratorium, Leiden University, P.O. Box 9504, 2300 RA, Leiden, The Netherlands — ²Centre for Micro and Nano Devices, Department of Physics, Park Road Campus, COMSATS Institute of Information Technology, Islamabad 44000, Pakistan

NE-9: Nanoelectronics

Chaired by M. Simmons, Sydney, AU

Time: Thursday 8:30–10:15

Location: Amphi. Richet

NE-9.1 THU 8:30
Organic memristor for learning circuit — ●THÉO CABARET¹, OLIVIER SEGUT², BRUNO JOUSSELME², JACQUES-OLIVIER KLEIN³, and VINCENT DERYCKE¹ — ¹CEA-Saclay, IRAMIS, SPEC, Laboratoire d'Electronique Moléculaire, 91191 Gif-sur-Yvette, France — ²CEA-Saclay, IRAMIS, SPCSI, Laboratoire de Chimie des Surfaces et Interfaces, 91191 Gif-sur-Yvette, France — ³Univ. Paris-Sud, Institut d'Electronique Fondamentale, F-91405, Orsay, France

NE-9.2 THU 8:45
Scrutinizing the transition voltage spectroscopy — ●IOAN BALDEA — Theoretical Chemistry, University of Heidelberg, INF 229, D-69120 Heidelberg, Germany

NE-9.3 THU 9:00
Nanoscale Electrical Characterization of Organic Conjugated Materials for Photovoltaic Applications — DAVID MOERMAN¹, OLIVIER DOUHÉRET², SIMON DESBIEF², MATHIEU SURIN¹, ROBERTO LAZZARONI¹, and ●PHILIPPE LECLÈRE¹ — ¹University of Mons, Center of Innovation and Research in Materials and Polymers, Mons, Belgium — ²Materia Nova, Mons, Belgium

NE-9.4 THU 9:15
Nanometer scale testbed for molecules based on single wall carbon nanotube — ●JULIEN CHASTE¹, PHILIPPE PETIT¹, MARIA LUISA DELLA ROCA¹, PASCAL MARTIN², JEAN-CHRISTOPHE LACROIX², and PHILIPPE LAFARGE¹ — ¹Matériaux et Phénomènes Quantiques, Université Paris Diderot, CNRS, 75205 Paris Cedex 13, France — ²ITODYS, Université Paris Diderot, CNRS, 75205 Paris Cedex 13, France

NE-9.5 THU 9:30
Connecting the Nanoscale to the Macroworld: Toward Electric Circuits by Self-Assembly, Constructive Nanolithography and Nanoionics — ●JONATHAN BERSON, DORON BURSHTAIN, RIVKA MAOZ, and JACOB SAGIV — Weizmann Institute of Science, Rehovot, Israel

NE-9.6 THU 9:45
Gold Nanorods as Building Blocks for Bottom-Up Molecular Electronic Devices — ●ANTJE REY^{1,2}, TITOO JAIN³, CYRILL KUEMIN¹, EMANUEL LÖRTSCHER¹, HEIKO WOLF¹, THOMAS BJØRNHOLM³, ANDREAS STEMMER², and HEIKE RIEL¹ — ¹IBM Research - Zurich, Rüschlikon, Switzerland — ²Nanotechnology Group, ETH

Zurich, Zurich, Switzerland — ³Nano-Science Center and Department of Chemistry, University of Copenhagen, Copenhagen, Denmark

NE-9.7 THU 10:00

Microwave Frequency Comb Attributed to Formation of Dipoles on the Surface of a Semiconduc-

tor by a Mode-Locked Ultrafast Laser — ●MARK HAGMANN^{1,2}, DMITRY YAROTSKI³, AJAY NAHATA², and SHASHANK PANDEY² — ¹NewPath Research L.L.C., Salt Lake City, Utah, USA — ²University of Utah, Salt Lake City, Utah, USA — ³Center for Integrated Nanotechnologies, Los Alamos National Laboratory, Los Alamos, New Mexico, USA

SC-6: Si nanowires II, semiconductor surfaces I, nanoparticles

Chaired by P. Müller, Marseille, FR

Time: Thursday 8:30–10:00

Location: Pavillon 1

SC-6.1 THU 8:30

Synthesis and characterization of PbS and PbS/Cu₂S nanoparticles — ●THELMA SERRANO¹, IDALIA GOMEZ¹, and RAFAEL COLÁS² — ¹Facultad de Ciencias Químicas, Universidad Autonoma de Nuevo Leon, San Nicolas de los Garza, Mexico — ²CIIDIT, Universidad Autonoma de Nuevo Leon, San Nicolas de los Garza, Mexico

SC-6.2 THU 8:45

The Interaction Between CdSe Nanoparticles and *sp*² Carbon Surfaces Studied by Scanning Tunneling Microscopy and X-ray Photoelectron Spectroscopy — ●FABIOLA IACONO^{1,2}, LEONOR DE LA CUEVA¹, CRISTINA PALENCIA¹, JONATHAN RODRIGUEZ-FERNANDEZ², JOSE MARIA GALLEGU^{1,3}, RODOLFO MIRANDA^{1,2}, BEATRIZ JUÁREZ¹, and ROBERTO OTERO^{1,2} — ¹IMDEA-Nano, Madrid, Spain — ²Dep. de Fisica de la Materia Condensada, Universidad Autonoma de Madrid, Madrid, Spain — ³Instuto de Ciencia de Materiales de Madrid-CSIC, Madrid, Spain

SC-6.3 THU 9:00

Quantum Size Effect in Amorphous Silicon Nanoclusters Ensembles — ●DENIS ZHIGUNOV¹, PAVEL KASHKAROV¹, DANIEL HILLER², and MARGIT ZACHARIAS² — ¹Lomonosov Moscow State University, Faculty of Physics, 119991 Moscow, Russia — ²Albert-Ludwigs-University Freiburg, IMTEK, 79110 Freiburg, Germany

SC-6.4 THU 9:15

Interference enhancement of photoluminescence sig-

nal from thin layers with silicon nanocrystals — ●SERGEY DYAKOV¹, DENIS ZHIGUNOV², ANDREAS HARTEL³, MARGIT ZACHARIAS³, and TATIANA PEROVA¹ — ¹Trinity College Dublin, Dublin 2, Ireland — ²Faculty of Physics, Lomonosov Moscow State University, 119991 Moscow, Russia — ³IMTEK, Faculty of Engineering, Albert-Ludwigs-University Freiburg, 79110 Freiburg, Germany

SC-6.5 THU 9:30

Stability of 6-fold GeO₂ Structure on Ge(001) Surface: A First-Principles Study — ●SHOICHIRO SAITO and TOMOYA ONO — Graduate School of Engineering, Osaka University, Yamada-oka 2-1, Suita, Osaka 565-0871, Japan

SC-6.6 THU 9:45

Direct investigation of the electronic structure at the Gd₂O₃/GaAs (100) hetero-interface using scanning tunneling spectroscopy — ●YA-PING CHIU¹, B. C. HUANG¹, M. C. SHIH¹, J. Y. SHEN², P. CHANG², C. S. CHANG³, M. L. HUANG⁴, M.-H. TSAI¹, M. HONG⁵, and J. KWO^{4,6} — ¹Department of Physics, National Sun Yat-Sen University, Kaohsiung 80424, Taiwan — ²Department of Materials Science and Engineering, National Tsing Hua University, Hsinchu 30013, Taiwan — ³Institute of Physics, Academia Sinica, Taipei 10617, Taiwan — ⁴Department of Physics, National Tsing Hua University, Hsinchu 30013, Taiwan — ⁵Department of Physics and Graduate Institute of Applied Physics, National Taiwan University, Taipei 10617, Taiwan — ⁶Center for Condensed Matter Sciences, National Taiwan University, Taipei 10617, Taiwan

GT-6: Graphene: Growth and patterning

Chaired by J. Lagoute, Paris, FR

Time: Thursday 8:30–10:15

Location: Pavillon 3

GT-6.1 THU 8:30

Graphene Nanoribbon etching by low energy Electron Beam Induced Etching. — ●SÉBASTIEN LINAS, CATERINA SOLDANO, PHILIPPE SALLES, MIGUEL RUBIO-ROY, and ERIK DUJARDIN — NanoSciences Group, CEMES, 29 rue Jeanne Marvig, BP 94347, 31055, Toulouse Cedex 4, FRANCE

GT-6.2 THU 8:45

Growth of Organic Semiconductor Films on Graphene — ●CHRISTIAN TEICHERT¹, GREGOR HLAWACEK^{1,2}, QUAN SHEN¹, FAWAD KHOKHAR², RAOUL VAN GASTEL², HAROLD ZANDVLIET², and BENE POELSEMA² — ¹Institute of Physics, Montanuniversität Leoben, Franz Josef Str. 18, A-8700 Leoben, Austria — ²Physics of Interfaces and Nanomaterials, MESA+ Insti-

tute for Nanotechnology, University of Twente, NL-7500AE, Enschede, The Netherlands

GT-6.3 THU 9:00

Epitaxial Growth of Graphene Layer at Low Temperature — ●BEOMYONG HWANG, HONGWOO BAEK, JEONGHOON KWON, WOONGDON HAM, and YOUNG KUK — Department of Physics and Astronomy, Seoul National University, 151-747, Seoul, Korea

GT-6.4 THU 9:15

Growth of 2D Graphene-Boron Nitride Heterostructures — ●PETER SUTTER, JAYEETA LAHIRI, ROCIO CORTES, and ELI SUTTER — Center for Functional Nanomaterials, Brookhaven National Laboratory, Upton, New York 11973 USA

GT-6.5 THU 9:30

Fabrication of polymer-protected graphene nanoribbons by thermal dip-pen nanolithography (tDPN)

— ●WOO-KYUNG LEE¹, JEREMY ROBINSON¹, DANIEL GUNLYCKE¹, RORY STINE², CY TAMANAHA¹, WILLIAM KING³, and PAUL SHEEHAN¹ — ¹US Naval Research Lab — ²Nova Research Inc. — ³University of Illinois, Urbana-Champaign

GT-6.6 THU 9:45

Macroscopic Monolayer Graphene on Ruthenium Thin Films - Growth and Applications — ●ELI SUTTER, JAYEETA LAHIRI, PETER ALBRECHT, and PETER SUTTER — Center for Functional Nanomaterials, Brookhaven National Laboratory, Upton, New York 11973, USA

GT-6.7 THU 10:00

First-principles Study of Graphene Growth Mechanism on Oxide and Metal Substrates — ●JUNGA RYOU, JINWOO PARK, and SUKLYUN HONG — Department of Physics and Graphene Research Institute, Sejong University, Seoul 143-747, Korea

NO-7: New concepts for sensing and microscopy - ultrafast phenomena.

Chaired by D. Oron, Rehovot, IL

Time: Thursday 8:30–10:00

Location: Pavillon 4

NO-7.1 THU 8:30

Gold nanoparticle based optical modulator — ●OLIVIER LOISON and EMMANUEL FORT — Centre d'Imageries Plasmoniques Appliquées, Institut Langevin ESPCI ParisTech, CNRS UMR 7587, INSERM ERL U979, 10 rue Vauquelin, 75231 Paris Cedex 05, France

NO-7.2 THU 8:45

Nanoscale Multiphoton Sensing Using Quantum Tomographic Methods — ●JELMER J. RENEMA¹, GIULIA FRUCCI², ZHILI ZHOU², FRANCESCO MATTIOLI³, ALESSANDRO GAGGERO³, ROBERTO LEONI³, ANDREA FIORE², MICHIEL J.A. DE DOOD¹, and MARTIN P. VAN EXTER¹ — ¹Leiden University, Niels Bohrweg 2, 2333 CA Leiden, the Netherlands — ²COBRA Research Institute, Eindhoven University of Technology, P.O. Box 513, 5600 MB Eindhoven, the Netherlands — ³Istituto di Fotonica e Nanotecnologie (IFN), CNR, via Cineto Romano 42, 00156 Roma, Italy

Invited

NO-7.3 THU 9:00

Fast STED Microscopy — ●MARCEL A. LAUTERBACH — Neurophysiology and New Microscopies Laboratory, CNRS UMR8154, INSERM S603, University Paris

Descartes, Paris, France

NO-7.4 THU 9:30

Coherent generation and detection of terahertz phonon by a semiconductor superlattice embedded in an optical microcavity — ●AGNES HUYNH¹, ROMAIN LEGRAND¹, BERNARD PERRIN¹, NORBERTO D. LANZILLOTTI-KIMURA², and ARISTIDE LEMAITRE³ — ¹INSP, CNRS-UMR 7588-Université Pierre et Marie Curie, 4 place Jussieu 75005 Paris, France — ²Instituto Balseiro and Centro atómico Bariloche, 8400 S. C. De Bariloche, Argentina — ³LPN, CNRS-UPR 20, Route de Nozay, 91460 Marcoussis, France

NO-7.5 THU 9:45

Stationary and ultrafast transient optical responses of gold nanoparticles in a one-dimensional photonic crystal cavity — ●XIAOLI WANG¹, ROBERTA MOREA², JOSE GONZALO², and BRUNO PALPANT¹ — ¹Ecole Centrale Paris, Laboratoire de Photonique Quantique et Moléculaire, UMR 8537 CNRS, Ecole Normale Supérieure du Cachan, Grande Voie des Vignes, 92295 Châtenay-Malabry cedex, France — ²Laser Processing Group, Instituto de Optica, CSIC, Serrano 121, 28006 Madrid, Spain

NB-4: AFM: Imaging of biomolecules II and bionanomechanics

Chaired by S. Scheuring, Paris, FR

Time: Thursday 8:30–10:00

Location: Amphi. Pasquier

NB-4.1 THU 8:30

The nanomechanical signature of breast cancer — ●MARIJA PLODINEC¹, MARKO LOPARIC¹, CHRISTOPHE

A. MONNIER¹, ELLEN OBERMANN², ROSANNA ZANETTI-DALLENBACH³, PHILIP OERTLE¹, JANNE HYÖTYLÄ¹, UELI AEBI⁴, MOHAMED BENTIRES-ALJ⁵, CORA-ANN

SCHOENENBERGER¹, and RODERICK Y.H. LIM¹ — ¹Biozentrum and the Swiss Nanoscience Institute, University of Basel, 4056 Basel, Switzerland — ²Institute of Pathology, University Hospital Basel, 4031 Basel, Switzerland — ³Department of Gynecology and Gynecological Oncology, University Hospital Basel, University of Basel, 4031 Basel, Switzerland — ⁴Maurice E. Mueller Institute for Structural Biology, Biozentrum, University of Basel, 4056 Basel, Switzerland — ⁵Mechanisms of cancer, Friedrich Miescher Institute for Biomedical Research, 4058 Basel, Switzerland

NB-4.2 THU 8:45

Heparin and basic Fibroblast Growth Factor coated up-converting luminescent nanoprobes for targeting and high resolution fluorescence bioimaging of cancer — NICOLETA BOGDAN¹, •EMMA MARTÍN RODRÍGUEZ¹, FRANCISCO SANZ-RODRÍGUEZ², MARIA DEL CARMEN IGLESIAS DE LA CRUZ³, ÁNGELES JUARRANZ², DANIEL JAQUE⁴, JOSÉ GARCÍA SOLÉ⁴, and JOHN A CAPOBIANCO¹ — ¹Department of Chemistry and Biochemistry, Concordia University, Montreal, Canada — ²Departamento de Biología, Facultad de Ciencias, Universidad Autónoma de Madrid, Madrid, Spain — ³Departamento de Fisiología, Facultad de Medicina, Universidad Autónoma de Madrid, Madrid, Spain — ⁴Departamento de Física

de Materiales, Universidad Autónoma de Madrid, Madrid, Spain

NB-4.3 THU 9:00

Study by AFM and fluorescence microscopy of supported lipid monolayers and bilayers in interaction with silica nanoparticles — •FAYE ROKHAYA N, MOROTE FABIEN, GRAUBY-HEYWANG CHRISTINE, and COHEN-BOUHACINA TOURIA — Laboratoire Ondes et Matière d'Aquitaine, Bordeaux, France

NB-4.4 THU 9:15

Electrochemical Impedance of Tethered Bilayer Membranes — •GINTARAS VALINCIUS¹, RIMA BUDVYTYTE¹, MINDAUGAS MICKEVICIUS¹, and TADAS MESKAUSKAS² — ¹Institute of Biochemistry, Vilnius University, Mokslininku 12, Vilnius LT-08662, Lithuania — ²Faculty of Mathematics, Vilnius University, Naugarduko 24, LT-03225, Lithuania

Invited

NB-4.5 THU 9:30

High-speed atomic force microscopy for recording dynamics of biomolecules — •TOSHIO ANDO — Kanazawa University, Kanazawa, Japan

SA-6: Manipulation with STM tip, light or temperature

Chaired by P. Zeppenfeld, Linz, AT

Time: Thursday 8:30–10:15

Location: Grand Amphi.

Invited

SA-6.1 THU 8:30

Imaging Atomic and Molecular Functionality — •KLAUS KERN — Max-Planck-Institut für Festkörperforschung, Heisenbergstr. 1, D-70569 Stuttgart, Germany and Ecole Polytechnique Fédérale de Lausanne - EPFL, CH-1015 Lausanne, Switzerland

SA-6.2 THU 9:00

Functional Platform Adlayers on Au(111) — •ULRICH JUNG¹, SONJA KUHN¹, MATHIAS MÜLLER¹, SANDRA ULRICH², JENS KUBITSCHKE², RAINER HERGES², and OLAF MAGNUSSEN¹ — ¹Institut für Experimentelle und Angewandte Physik, Christian-Albrechts-Universität zu Kiel, Leibnizstr. 19, 24118 Kiel, Germany — ²Otto-Diels-Institut für Organische Chemie, Christian-Albrechts-Universität zu Kiel, Otto-Hahn-Platz 4, 24098 Kiel, Germany

SA-6.3 THU 9:15

Catalytic Role of Charge-Transfer in the Trans-Cis Isomerization of DCNQI on the Cu(100) Surface — •JONATHAN RODRÍGUEZ-FERNÁNDEZ¹, CHRISTIAN URBAN¹, YANG WANG¹, RAÚL GARCÍA², MARÍA ÁNGELES HERRANZ², MANUEL ALCAMÍ¹, NAZARIO MARTÍN^{2,4}, JOSÉ M. GALLEGOS^{3,4}, FERNANDO MARTÍN^{1,4}, ROBERTO OTERO^{1,4}, and RODOLFO MIRANDA^{1,4} — ¹Universidad Autónoma de Madrid, Madrid, Spain — ²Universidad Complutense de Madrid, Madrid, Spain — ³Instituto de Ciencia de Materiales-CSIC, Madrid, Spain — ⁴Instituto

de Estudios Avanzados en Nanociencia (IMDEA-Nanociencia), Madrid, Spain

SA-6.4 THU 9:30

Electrically induced controlled manipulation of supramolecular structures — •ANJA NICKEL¹, ROBIN OHMANN¹, JÖRG MEYER¹, CHRISTIAN JOACHIM², GI-ANAURELIO CUNIBERTI¹, and FRANCESCA MORESCO¹ — ¹Institute for Materials Science and Max Bergmann Center of Biomaterials, Technische Universität Dresden, 01062 Dresden, Germany — ²NanoSciences Group, CEMES-CNRS, 29 rue J. Marvig, 31055 Toulouse, France

SA-6.5 THU 9:45

Efficient photoswitchable fulgimide monolayer covalently immobilized on Si(111) surfaces — •CATHERINE HENRY DE VILLENEUVE¹, PHILIPPE ALLONGUE¹, FABIAN MICHALICK², and KAROLA RÜCK-BRAUN² — ¹Physique de la Matière Condensée, Ecole Polytechnique, CNRS, Route de Saclay, F-91128 Palaiseau, France — ²Institut für Chemie, Technische Universität Berlin, Strasse des 17 Juin 135, D-10623 Berlin, Germany

SA-6.6 THU 10:00

Multi-Components Supramolecular Networks on a Si(111)-B Surface — •BULENT BARIS, JUDICAEEL JEAN-NOUTOT, FRANK PALMINO, and FREDERIC CHERIOUX — Institut FEMTO-ST, Besancon, France

SP-5: SPM high-speed measurements and comparison with complementary technics

Chaired by N. Mullin, Sheffield, GB

Time: Thursday 8:30–10:15

Location: Salle du Conseil

SP-5.1 THU 8:30

Probing Carrier Dynamics Modulated by Atomic-Scale Impurities in GaAs by Femto-Second Time-Resolved Scanning Tunneling Microscopy — ●SHOJI YOSHIDA, MUNENORI YOKOTA, OSAMU TAKEUCHI, and HIDEKI SHIGEKAWA — University of Tsukuba, Tsukuba, Japan

SP-5.2 THU 8:45

Characterizing Bandwidth Limitations in Modern High-Speed Atomic Force — ●ANNE-D. MÜLLER¹, BLAKE ERICKSON², FALK MÜLLER¹, and GEORG FANTNER² — ¹Anfatec Instruments AG, Melanchthonstr. 28, D-08606 Oelsnitz, Germany — ²EPFL-STI-IBI-LBNI, Building BM 3109, Station 17, CH-1015 Lausanne, Switzerland

SP-5.3 THU 9:00

Integration of Micro-Electro Mechanical Systems in High-Speed Scanning Tunneling Microscopy — ●FEMKE C TABAK¹, PETER C VAN DER TUIJN¹, JOOST W M FRENKEN¹, and W MERLIJN VAN SPENGEN² — ¹LION, Leiden University, Leiden, The Netherlands — ²3ME, Delft University, Delft, the Netherlands

SP-5.4 THU 9:15

High-Speed AFM enables direct, time resolved observation of protein, live bacteria and material phase transition phenomena, and enables SEM-like interactive nano scale imaging — ●JOHANNES H KINDT¹, ANDREA SLADE², SHUIQING HU², NATALIA

ERINA², HARTMUT STADLER¹, and STEPHEN C. MINNE² — ¹Bruker Nano GmbH, Dynamostr. 19, 68165 Mannheim, Germany — ²112 Robin Hill Road, Santa Barbara, CA 93117, USA

SP-5.5 THU 9:30

Investigation of protein-DNA-surface interaction by high-speed atomic force microscopy — ●ECE NESLIHAN AYBEKE¹, DAVID CARRIOU¹, MALGORZATA BARANOWSKA¹, RODOLPHE FILOMENKO², SVETLANA NIKOLAEVNA PLESKOVA¹, ERIC BOURILLOT¹, and ERIC LESNIEWSKA¹ — ¹Institute Carnot Bourgogne UMR CNRS 6303, University of Bourgogne, 21078 Dijon, France — ²IFR STIC 100 - 21070 Dijon, France

SP-5.6 THU 9:45

Coupling X-ray Spectroscopy and Scanning Probe Microscopy for Simultaneous Sample Topography and Chemical mapping — DIDIER TONNEAU, CAROLE FAUQUET, ●MAËL DEHLINGER, and FRANCK JANDARD — Aix-Marseille Univ., CINaM, 13288, Marseille, France

SP-5.7 THU 10:00

In-situ Combination of SIMS and SPM in the Cameca NanoSIMS 50 : Instrument design, Performances and Applications — ●YVES FLEMING¹, TOM WIRTZ¹, URS GYSIN², THILO GLATZEL², ERNST MEYER², URS MAIER³, and URS WEGMANN^{2,3} — ¹Centre de Recherche Public Gabriel Lippmann, Belvaux, Luxembourg — ²University of Basel, Basel, Switzerland — ³Ferrovac GmbH, Zürich, Switzerland

83: Coffee Break

Time: Thursday 10:15–10:30

Location: Coffee Break

Coffee Break

SO-9: Nanoparticles synthesis II

Chaired by C. Klinke, Hamburg, DE

Time: Thursday 10:45–12:15

Location: Amphi. Portier

SO-9.1 THU 10:45

Chemical Processing of Boron-Based Nanostructures from Salt Melts — ●DAVID PORTEHAULT^{1,2,3}, WEIWEI LEI⁴, RUBEN BISCHLER⁴, CHRISTEL GERVAIS^{1,2,3}, CLÉMENT SANCHEZ^{1,2,3}, and MARKUS ANTONIETTI⁴ — ¹UPMC Univ Paris 06, UMR 7574, Chimie de la Matière Condensée de Paris, Collège de France, 11 place Marcelin Berthelot, 75231 Paris Cedex 05, France. — ²CNRS, UMR 7574, Chimie de la Matière Condensée de Paris, France. — ³Collège de France, UMR 7574, Chimie de la Matière Condensée de Paris, France. — ⁴Max-Planck-Institute of Colloids and Interfaces, Department of Colloid Chemistry, Campus Golm, 14424 Potsdam, Germany

SO-9.2 THU 11:00

Luminescent studies of Nanocrystalline BaSO₄:Eu to Gamma and Proton Beams — ●SHAILA BAHL¹, SATYAPAL LOCHAB², ANANT PANDEY³, VALERIY ALEJNIKOV⁴, ALEXANDER MOLOKANOV⁴, and PRATIK KUMAR¹ — ¹Medical Physics Unit (IRCH), AIIMS, New Delhi-110029, India — ²Inter-University Accelerator Center, Aruna Asaf Ali Marg, New Delhi - 110067, India — ³Department of Physics, Sri Venkateswara College, New Delhi-110021, India — ⁴Joint Institute for Nuclear Research, Dubna - 141980, Russia

SO-9.3 THU 11:15

Fabrication of nanoparticle phosphors and application to the transparent ink — ●MASAKAZU KOBAYASHI^{1,2} and AYAKA YAGI² — ¹Laboratory for Materials Science and Technology, Waseda University, 2-8-26 Nishiwaseda, Shinjuku Tokyo 169-0051, Japan — ²Department of Electrical Engineering and Bioscience, Waseda University, 3-4-1 Okubo, Shinjuku Tokyo 169-8555, Japan

SO-9.4 THU 11:30

Nanostructured and modified by C60 metals — ●MIKHAIL POPOV, VYACHESLAV MEDVEDEV, ANDREY ZAMESHIN, VIKTOR AKSENENKOV, SERGEY PERFILOV, ROMAN LOMAKIN, EVGENY TATYANIN, and VLADIMIR BLANK — TISNCM, Troitsk, Russia

SO-9.5 THU 11:45

Electrospun Syndiotactic Polypropylene Fibers: Processing and Microstructure Development during

Stepwise Annealing — ●CHUAN-HSIN JAO and CHI WANG — Department of Chemical Engineering, National Cheng Kung University, Tainan, Taiwan

SO-9.6 THU 12:00

Nano-Alloyed Monodisperse Metal Phosphide Nanoparticles for Catalysis: a Novel Versatile and Scalable Synthesis — ●SOPHIE CARENCO^{1,2,4}, YICHEN HU², ILEANA FLOREA³, OVIDIU ERSEN³, CÉDRIC BOISSIÈRE¹, NICOLAS MÉZAILLES², and CLÉMENT SANCHEZ¹ — ¹Laboratoire de Chimie de la Matière Condensée de Paris, UPMC, Collège de France, Paris, France — ²Laboratoire Hétéroéléments et Coordination, Ecole Polytechnique, CNRS, Palaiseau France — ³Institut de Physique et Chimie des Matériaux de Strasbourg, UMR 7504 CNRS, Université de Strasbourg, France — ⁴Current address: Materials Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, California, USA

NE-10: Low dimensional systems

Chaired by D. Roditchev, Paris, FR

Time: Thursday 10:45–12:15

Location: Amphi. Richet

NE-10.1 THU 10:45

Electronic structures of Sb₂Te₃ thin films on graphene — ●XUCUN MA — Institute of Physics, CAS

NE-10.2 THU 11:00

Scanning Tunneling Spectroscopy of Topological Insulators' Electrically Tunable Electronic Structure — ●NIV LEVY¹, TONG ZHANG^{1,2}, JEONGHOON HA^{1,3}, YOUNG KUK³, and JOSEPH A. STROSCIO¹ — ¹CNST, NIST, Gaithersburg, MD, USA — ²Maryland NanoCenter, UMD, College Park, MD, USA — ³Dept. of Physics and Astronomy, Seoul National University, Seoul, Korea

NE-10.3 THU 11:15

Formation of a Spatially Extended Intermolecular Band for TCNQ Molecules on Graphene/Ru(0001) measure by means of Scanning Tunneling Spectroscopy and DFT Calculations — ●MANUELA GARNICA^{1,2}, DANIELE STRADI^{1,3}, SARA BARJA^{1,2}, CRISTINA DÍAZ³, MANUEL ALCAMÍ³, AMADEO L VÁZQUEZ DE PARGA^{1,2}, NAZARIO MARTÍN^{1,4}, FERNANDO MARTÍN^{1,3}, and RODOLFO MIRANDA^{1,2} — ¹Instituto Madrileño de Estudios Avanzados en Nanociencia, Cantoblanco 28049, Madrid, Spain. — ²Dep. Física de la Materia Condensada, Universidad Autónoma de Madrid, Cantoblanco 28049, Madrid, Spain. — ³Dep. Química, Universidad Autónoma de Madrid, Cantoblanco 28049, Madrid, Spain. — ⁴Dep. Química Orgánica, Universidad Complutense de Madrid, 28040 Madrid, Spain.

NE-10.4 THU 11:30

Theoretical Explanation of Temperature Dependent Resistivity of Zn Nanowires: Electron-Phonon and Small Polaron Mechanism — ●DINESH PRASAD^{1,2} and K. K. CHOUDHARY¹ — ¹Department of Physics, Shri Vaishnav Institute of Technology and Science, Baroli, Sanwer Road, Indore -453331, India — ²Department of Physics, Shri Venkateshwar Institute of Technology, Jakhya, Sanwer Road, Indore -453331, India

NE-10.5 THU 11:45

Studying the Structure and Depth-resolved Bandstructure of Ion Implanted Bi in Silicon by XSTM — PHILIPP STUDER^{1,2}, STEVEN R. SCHOFIELD^{1,3}, CYRUS F. HIRJIBEHEDIN^{1,3,4}, and ●NEIL J. CURSON^{1,2} — ¹London Centre for Nanotechnology, UCL, London, UK — ²Department of Electronic and Electrical Engineering, UCL, London, UK — ³Department of Physics and Astronomy, UCL, London, UK — ⁴Department of Chemistry, UCL, London, UK

NE-10.6 THU 12:00

Individual Group V Donors in Silicon — ●PHILIPP STUDER^{1,2}, VERONIKA BRÁZDOVÁ^{1,3}, STEVEN R. SCHOFIELD^{1,3}, DAVID R. BOWLER^{1,3}, CYRUS F. HIRJIBEHEDIN^{1,3,4}, and NEIL J. CURSON^{1,2} — ¹London Centre for Nanotechnology, UCL, London, UK — ²Department of Electronic and Electrical Engineering, UCL, London, UK — ³Department of Physics and Astronomy, UCL, London, UK — ⁴Department of Chemistry, UCL, London, UK

SC-7: Semiconductor surfaces II

Chaired by P. M. Koenraad, Eindhoven, NL

Time: Thursday 10:45–12:15

Location: Pavillon 1

SC-7.1 THU 10:45

Chemical Resolution in In/Sn/Si Mixed Chains on Si(100) with nc-AFM — MARTIN SETVÍN^{1,2}, PINGO MUTOMBO¹, ●MARTIN ONDRÁČEK¹, ZSOLT MAJZIK¹, VLADIMÍR CHÁB¹, IVAN OŠTÁDAL², PAVEL SOBOTÍK², and PAVEL JELÍNEK¹ — ¹Institute of Physics, Academy of Sciences of the Czech Republic, Prague, Czech Republic — ²Faculty of Mathematics and Physics, Charles University in Prague, Prague, Czech Republic

SC-7.2 THU 11:00

Adsorption and dynamics of In adatoms on In/Si(111) surface — ●HYUNGJOON SHIM¹, HYE-KYOUNG KIM², HANCHUL KIM², and GEUNSEOP LEE¹ — ¹Department of Physics, Inha University, Incheon 402-751, Korea — ²Sookmyung Women's University, Seoul 140-742, Korea

SC-7.3 THU 11:15

Electronic properties of dangling-bond nanostructures formed on hydrogen passivated Ge(001) surface by STM tip-induced hydrogen desorption — ●MAREK KOLMER¹, SZYMON GODLEWSKI¹, BARTOSZ SUCH¹, FRANCISZEK KROK¹, HIROYO KAWAI², MARK SAEYS^{2,3}, CHRISTIAN JOACHIM^{2,4}, and MAREK SZYMONSKI¹ — ¹Department of Physics of Nanostructures and Nanotechnology, Institute of Physics, Jagiellonian University, Reymonta 4, PL 30-059, Krakow, Poland — ²Institute of Materials Research and Engineering, 3 Research Link, Singapore 117602, Singapore — ³Department of Chemical and Biomolecular Engineering, National University of Singapore, 4 Engineering Drive 4, Singapore

117576, Singapore — ⁴Nanosciences Group & MANA Satellite, CEMES-CNRS, 29 rue Jeanne Marvig, F-31055 Toulouse, France

SC-7.4 THU 11:30

Atomic-scale study of MnAs nanoclusters embedded in Be-doped GaAs — ●SAMUEL MAUGER¹, PAUL KOENRAAD¹, DAVE RENCH², PETER SCHIFFER², and NITIN SAMARTH² — ¹Technische Universiteit, Eindhoven, The Netherlands — ²Penn State, Pennsylvania, USA

SC-7.5 THU 11:45

The 2xN reconstruction of the Ge wetting layer on Si(001) investigated by surface x-ray diffraction — TAO ZHOU¹, GILLES RENAUD¹, ●CHRISTINE REVENANT¹, JÉRÔME ISSARTEL¹, TOBIAS SCHÜLLI², ROBERTO FELICI², and ANGELO MALACHIAS³ — ¹Institut Nanosciences et Cryogénie, CEA, Grenoble, France — ²European Synchrotron Radiation Facility, Grenoble, France — ³Laboratório Nacional de Luz Síncrotron, Campinas, Brazil

SC-7.6 THU 12:00

Unraveling the Atomic Structure of GaN(0001): Surface-Electron-Gas-Mediated Dimer Molecule Ordering — NOBORU TAKEUCHI², KANGKANG WANG¹, DANDA ACHARYA¹, TIANJIAO CHEN¹, YINGHAO LIU¹, SAW-WAI HLA¹, and ●ARTHUR R. SMITH¹ — ¹Ohio University Nanoscale & Quantum Phenomena Institute, Athens, OH 45701, USA — ²Centro de Nanociencias y Nanotecnología, Universidad Nacional Autónoma de México, Ensenada Baja California, México

GT-7: Doping of carbon materials

Chaired by P. Mallet, Grenoble, FR

Time: Thursday 10:45–12:15

Location: Pavillon 3

Invited

GT-7.1 THU 10:45

Combined TEM and STM investigations of electronic properties of pure and nitrogen-doped carbon nanotubes — ●ANNICK LOISEAU¹, HONG LIN^{1,2}, YANN TISON², JÉRÔME LAGOUTE², VINCENT REPAIN², CYRIL CHACON², FRANÇOIS DUCASTELLE¹, HAKIM AMARA¹, LUC HENRARD³, JEAN-SÉBASTIEN LAURET⁴, and SYLVIE ROUSSET² — ¹LEM, CNRS-ONERA, Chatillon, France — ²MPQ, Université Paris Diderot-CNRS, Paris, France — ³Research Centre in Physics of Matter and Radiation, University of Namur (FUNDP), Namur, Belgium — ⁴LPQM, ENS Cachan CNRS, Cachan France

GT-7.2 THU 11:15

Nitrogen doped carbon nanotubes and oxygen reduction catalysis — XI CHENG¹, MATHIEU PINAULT¹, CECILE REYNAUD¹, MARTINE MAYNE¹, HENRI PEREZ¹, MURIEL BOUTTEMY², JACKIE VIGNERON², and ●ARNAUD

ETCHEBERRY² — ¹CEA/IRAMIS/SPAM/Laboratoire Francis Perrin, 91191 Gif/Yvette, F- 91191 Gif-sur-Yvette, France. — ²Institut Lavoisier de Versailles, ILV-UVSQ UMR CNRS 8180, 45 av. des Etats-Unis, F-78035 Versailles Cedex, France.

GT-7.3 THU 11:30

Nitrogen doping in carbon nanomaterials investigated with STM/STS — ●YANN TISON^{1,2}, JÉRÔME LAGOUTE¹, HONG LIN^{1,2}, FRÉDÉRIC JOUCKEN³, LUC HENRARD³, CYRIL CHACON¹, YANN GIRARD¹, VINCENT REPAIN¹, HAKIM AMARA², FRANÇOIS DUCASTELLE², SYLVIE ROUSSET¹, ROBERT SPORKEN³, and ANNICK LOISEAU² — ¹MPQ, Université Paris Diderot, Paris, France — ²LEM, ONERA, Chatillon, France — ³PMR, Université de Namur, Namur, Belgium

GT-7.4 THU 11:45

N-doped of high quality of monolayer graphene on SiC(0001) — ●EMILIO VELEZ-FORT¹, CLAIRE MATHIEU¹, PASCALE JEGOU², ABHAY SHUKLA³, and ABDELKARIM OUEGHY¹ — ¹CNRS- LPN, Route de Nozay, 91460 Marcoussis, France — ²DSM/IRAMIS/SPCSI/LCSI, CEA Saclay, F-91191 Gif-sur-Yvette, France — ³IMPMC, UPMC-Paris6, campus Jussieu, 4 Place Jussieu 75252 Cedex

05 Paris

GT-7.5 THU 12:00

Doping of HOPG (0001) with Nitrogen and Oxygen — ●JIANZHI GAO and QUANMIN GUO — University of Birmingham Nanoscale Physics Group

NB-5: Nanoparticles and nanomedicine

Chaired by L. Motte, Bobigny, FR

Time: Thursday 10:45–12:30

Location: Pavillon 4

NB-5.1 THU 10:45

A silver-specific DNA immobilized resonator for silver ions detection with cytosine amplifier — ●JINSUNG PARK, WOOK CHOI, KUEWHAN JANG, JI-SEOK SONG, and SUNGSOO NA — Department of Mechanical Engineering, Korea University, Seoul, Republic of Korea

NB-5.2 THU 11:00

Extremophilic Bacterial Polysaccharide Based Nanoparticles for Sustained Drug Delivery, Cancer Therapy and Cellular Imaging — ●SREEJITH RAVEENDRAN, YASUHIKO YOSHIDA, TORU MAEKAWA, and SAKTHI KUMAR — Bio-Nano Electronics Research Centre, Graduate School of Interdisciplinary New Science, Toyo University, Kawagoe, Saitama, 350-8585, Japan

NB-5.3 THU 11:15

Development of Malaria Parasites Separation Technique by Magnetic Nanoparticles — ●TIENRAT TANGCHAIKEEREE^{1,2}, ATCHARAVALAI PORNJARONE^{1,2}, DUANGPORN POLPANICH³, RAWEEWAN THIRAMANAS³, PRAMUAN TANGBORIBOONRAT⁴, and KULACHART JANGPATARAPONGSA^{1,2} — ¹Center for Innovation Development and Technology Transfer, Faculty of Medical Technology, Mahidol University, Bangkok 10700, Thailand — ²Department of Clinical Microbiology and Applied Technology, Faculty of Medical Technology, Mahidol University, Bangkok 10700, Thailand — ³National Nanotechnology Center, National Science and Technology Development Agency, Thailand Science Park, Pathumthani 12120, Thailand — ⁴Department of Chemistry, Faculty of Science, Mahidol University, Bangkok 10400, Thailand

NB-5.4 THU 11:30

withdrawn

Fluorescent, Superparamagnetic Nanospheres for

Drug Storage, Targeting, and Imaging — ●DONGLU SHI¹, HOON SUNG CHO², and ZHONGYUN DONG³ — ¹The Institute for Advanced Materials and Nano Biomedicine, Tongji University, Shanghai 200092, China — ²Harvard Medical School, Charlestown, Massachusetts 02129, USA — ³College of Medicine, University of Cincinnati, Cincinnati, Ohio 45267, USA

NB-5.5 THU 11:45

Ferric oxide nanoparticles for diagnostics and laser-induced regeneration of joint cartilage — EMIL SOBOL, ●ALEXANDER OMELCHENKO, ANATOLY SHEKHTER, OLGA BAUM, ANNA GULLER, and YULIA SOSHIKOVA — Institute on laser and information technologies, Troitsk, Russia

NB-5.6 THU 12:00

Iron oxide nanoparticles as MRI contrast agent for targeting integrin $\alpha v \beta 3$ overexpressed by tumor cells. — ●JULIE BOLLEY¹, VALERIE TOUM², NATHALIE DUPONT¹, ERWANN GUENIN¹, YOANN LALATONNE¹, MARC LECOUEVEY¹, JEAN MICHEL SERFATY³, JACQUES ROYER², JOELLE PERARD-VIRET², and LAURENCE MOTTE¹ — ¹University Paris 13, Bobigny, France — ²University Paris Descartes, Paris, France — ³University Paris 7, Paris, France

NB-5.7 THU 12:15

Electrical-Biosensing Performance of Horizontally Aligned Carbon Nanotube Device on Quartz Substrate — ●KENZO MAHASHI, SATOSHI OKUDA, KEISUKE KOSHIDA, YASUhide OHNO, KOICHI INOUE, and KAZUHIKO MATSUMOTO — The Institute of Scientific and Industrial Research, Osaka University, 8-1 Mihogaoka, Ibaraki, Osaka 567-0047, Japan

NM-4: Manipulation

Chaired by C. Nacci, Berlin, DE

Time: Thursday 10:45–12:15

Location: Amphi. Pasquier

NM-4.1 THU 10:45

Nonlinear Resonance of Carbon Nanotube Cantilever with Tip Mass — ●IL KWANG KIM and SOO IL LEE — University of Seoul, Seoul, 130-743, Korea

NM-4.2 THU 11:00

Atom Manipulation and Three-Dimensional Force Spectroscopy on Cu(110)-O Surface with Low-Temperature Atomic Force Microscopy — ●YASUHIRO SUGAWARA, YUKINORI KINOSHITA, YOSHITAKA NAITOH,

and YANJUN LI — Osaka University, Suita, Japan

NM-4.3 THU 11:15

Solid State Nano-Gears — ●CEDRIC TROADEC¹, JIE DENG¹, FRANCISCO AMPLE¹, SIEW LANG TEO¹, RAMESH THAMANKAR¹, JIANMIN MIAO², and CHRISTIAN JOACHIM^{1,3} — ¹Institute of Materials Research and Engineering, Singapore — ²Nanyang Technological University, Singapore — ³C.N.R.S., Toulouse, France

NM-4.4 THU 11:30

Directed Rotation of Single Porphyrins Molecules Controlled by Localized Force Spectroscopy — ●RÉMY PAWLAK¹, SWEETLANA FREMY¹, SHIGEKI KAWAI¹, THILO GLATZEL¹, HONGJUAN FANG², LESLI-ANNE

FENDT², FRANÇOIS DIEDERICH², and ERNST MEYER¹ — ¹Departement of Physics, University of Basel, Basel, Switzerland — ²Laboratorium für Organische Chemie, ETH Zürich, Zürich, Switzerland

Invited

NM-4.5 THU 11:45

Scanning probe microscopy of molecules on insulating films: From orbital imaging to molecular structure determination — ●GERHARD MEYER¹, LEO GROSS¹, FABIAN MOHN¹, NIKOLAJ MOLL¹, PETER LILJEROTH², and JASCHA REPP³ — ¹IBM Research - Zurich, 8803 Rueschlikon, Switzerland — ²Department of Applied Physics, Aalto University School of Science, Aalto, Finland — ³Institute of Experimental and Applied Physics, University of Regensburg, 93040 Regensburg, Germany

SP-6: AFM related characterizations and 4-tip probes

Chaired by U. D. Schwarz, New Haven, US

Time: Thursday 10:45–12:15

Location: Grand Amphi.

SP-6.1 THU 10:45

Ultra compact 4-tip STM/AFM for electrical measurements at the nanoscale — ●VASILY CHEREPANOV, STEFAN KORTE, MARCUS BLAB, EVGENY ZUBKOV, HUBERTUS JUNKER, PETER COENEN, and BERT VOIGTLÄNDER — Peter Grünberg Institut (PGI-3), Forschungszentrum Jülich, 52425 Jülich, Germany, and JARA-Fundamentals of Future Information Technology

SP-6.2 THU 11:00

Torsional tapping atomic force microscopy for molecular resolution studies of soft-matter systems — ●NIC MULLIN and JAMIE K HOBBS — Department of Physics and Astronomy, University of Sheffield, Sheffield, United Kingdom

SP-6.3 THU 11:15

Do Surface States affect the Phantom Force? —

●ALFRED J. WEYMOUTH, THORSTEN WUTSCHER, and FRANZ J. GIESSIBL — Universität Regensburg, Regensburg, Germany

SP-6.4 THU 11:30

High Precision local electrical Probing: A New Low Temperature 4-Tip STM with Gemini UHV-SEM Navigation — ●BERND GUENTHER¹, ANDREAS BETTAC¹, MARKUS MAIER¹, JUERGEN KOEBLE¹, FRANK MATTHES², CLAUS M. SCHNEIDER², and ALBRECHT FELTZ¹ — ¹Omicron NanoTechnology, Taunusstein, Germany — ²Forschungszentrum Juelich, Juelich, Germany

Invited

SP-6.5 THU 11:45

Quantum back action and single electron energy level spectroscopy by AFM — ●PETER GRÜTTER — McGill University, Montreal, Canada

SA-7: Supramolecular architectures I

Chaired by L. Limot, Strasbourg, FR

Time: Thursday 10:45–12:15

Location: Salle du Conseil

SA-7.1 THU 10:45

Towards Covalent Architectures on Surfaces: Self-assembly of Alkyne Functionalized Porphyrins and their Surface Confined Reaction into 1D or 2D Nanostructures — PETRA FESSER¹, CRISTIAN IACOVITA², ●SYLWIA NOWAKOWSKA², ANELIIA SHCHYRBA², CHRISTIAN WÄCKERLIN³, SARANYAN VIJAYARAGHAVAN², NIRMALYA BALLAV³, KARA HOWES¹, JEAN-PAUL GISSELBRECHT⁴, MAURA CROBU¹, CORINNE BOUDON⁴, MEIKE STÖHR⁵, THOMAS A. JUNG³, and FRANÇOIS DIEDERICH¹ — ¹ETH Zürich, Switzerland — ²University of Basel, Switzerland — ³Paul Scherrer Institute, Villigen PSI, Switzerland — ⁴C.N.R.S. Université de Strasbourg, France — ⁵University of Groningen, The

Netherlands

SA-7.2 THU 11:00

Metal-organic coordination networks of perylene derivatives on Cu(111) — ●KATHRIN MÜLLER¹, MEIKE STÖHR¹, MIHAELA ENACHE¹, MANFRED MATENA², JORGE LOBO-CHECA³, THOMAS A. JUNG⁴, JONAS BJÖRK⁵, MATS PERSSON⁵, and LUTZ H. GADE⁶ — ¹Zernike Institute for Advanced Materials, University of Groningen, Netherlands — ²Department of Physics, University of Basel, Switzerland — ³Centre d'Investigació en Nanociència i Nanotecnologia (CIN2), Barcelona, Spain — ⁴Paul-Scherrer-Institute, 5232 Villigen, Switzerland — ⁵Surface Science Research Centre, University of Liverpool, UK — ⁶Anorganisch-Chemisches

Institut, Universität Heidelberg, Heidelberg, Germany

SA-7.3 THU 11:15

Perylene derivatives and DNA base self-assemblies studied by Scanning Tunneling Microscopy — •XIAONAN SUN^{1,2}, JÉRÉMY HIEULLE⁴, MANUELA MURA³, HARRY JONKMAN², LEV KANTOROVICH³, and FABIEN SILLY⁴ — ¹ITODYS- CNRS-UMR 7086, University of Paris Diderot, 75205 Paris, France — ²Zernike Institute for Advanced Materials, University of Groningen, Nijenborgh 4, NL-9747 AG Groningen, the Netherlands. — ³Physics, King's College London, The Strand, London, WC2R 2LS, United Kingdom — ⁴CEA, IRAMIS, SPCSI, HyMN F-91191 Gif sur Yvette, France

SA-7.4 THU 11:30

Decoration of Flexible Metal-Organic Coordination Networks by Reactive Ni Clusters at Surfaces — •JAN CECHAL^{1,2,3}, CHRISTOPHER S. KLEY¹, TAKASHI KUMAGAI¹, FRANK SCHRAMM⁴, MARIO RUBEN^{4,5}, SEBASTIAN STEPANOW¹, and KLAUS KERN^{1,6} — ¹Max Planck Institute for Solid State Research, Stuttgart, Germany — ²CEITEC BUT, Brno University of Technology, Brno, Czech Republic — ³Institute of Physical Engineering, Brno University of Technology Brno, Czech Republic — ⁴Institute of Nanotechnology, Karlsruhe Institute of Technology, Karlsruhe, Germany. — ⁵IPCMS-CNRS UMR 7504, Université de Strasbourg, Strasbourg, France. — ⁶Institut de Physique

des Nanostructures, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland.

SA-7.5 THU 11:45

Hierarchical construction and dynamics of supramolecular nanoarchitectures — •FLORIAN KLAPPENBERGER¹, EMMANUEL ARRAS¹, YOUNES MAKOUDI¹, DIRK KÜHNE¹, WOLFGANG KRENNES¹, NENAD KEPČIJA¹, SVETLANA KLYATSKAYA^{1,2}, MARIO RUBEN^{2,3}, ARI PAAVO SEITSONEN⁴, and JOHANNES V. BARTH¹ — ¹Physik Department E20, TU München, Germany — ²Institute of Nanotechnology, Forschungszentrum Karlsruhe, Karlsruhe, Germany — ³Institute of Physics and Chemistry of Materials of Strasbourg, University of Strasbourg, Strasbourg, France — ⁴Institute of Physical Chemistry, University of Zurich, Zurich, Switzerland

SA-7.6 THU 12:00

2D supramolecular network on silicon surface: DFT-D study — •KHAOULA BOUKARI¹, ERIC DUVERGER², PHILIPPE SONNET¹, BARIS BULENT², VINCENT LUZET², FRANK PALMINO², and FREDERIC CHERIOUX² — ¹Institut de Science des Matériaux de Mulhouse (IS2M) CNRS LRC 7228-Université de Haute Alsace, 4 rue des Frères Lumière 68093 Mulhouse cedex — ²Institut FEMTO-ST, Université de Franche-Comté, CNRS, ENSMM, 32 Avenue de l'Observatoire, F-25044 Besançon cedex.

SO-10: Nanoparticles synthesis III

Chaired by C. Chaneac, Paris, FR

Time: Thursday 14:00–15:30

Location: Amphi. Portier

SO-10.1 THU 14:00

Biochemical sensors based on magnetic nanoparticles — •MATTIA ALBERTO LUCCHINI¹, MARINA ALLOISIO¹, MARIA ELISABETTA COSULICH^{1,3}, PAOLA RIANI¹, SERGIO THEA¹, and FABIO CANEPA² — ¹DCCI * Dipartimento di Chimica e Chimica Industriale, Via Dodecaneso 31, 16146 Genova ITALY — ²IMEM-CNR Genova Unit and DCCI * Dipartimento di Chimica e Chimica Industriale, Via Dodecaneso 31, 16146 Genova ITALY — ³Università di Pavia, Dipartimento di Biochimica, Via Taramelli, 3B *27100 Pavia ITALY

SO-10.2 THU 14:15

Dynamic DNA-templated gold nanoparticle groupings for single-molecule chemical sensing — •LAURENT LERMUSIAUX¹, MICKAËL BUSSON¹, ERIC LARQUET², and SEBASTIEN BIDAULT¹ — ¹Institut Langevin, ESPCI ParisTech, CNRS UMR 7587, INSERM U979, Paris, France — ²Laboratoire d'Enzymologie et Biochimie Structurales, CNRS UPR 3082, Gif-sur-Yvette, France

SO-10.3 THU 14:30

Small Silver Nanoparticles Stabilised by Fluorescent Calix[8]arenes — •ISABELLE LAMPRE¹, PRIYANKA RAY¹, CYRIL MARTINI², VINCENT HUC², PATRICIA BEAUNIER³, and HYND REMITA¹ — ¹Laboratoire de Chimie Physique,

UMR 8000 CNRS - Université Paris-Sud, Orsay, France — ²ICMMO, UMR 8182 CNRS - Université Paris-Sud, Orsay, France — ³Laboratoire de Réactivité de Surface, UMR 7197 CNRS - UPMC, Ivry, France

SO-10.4 THU 14:45

Toward Designer Crystals of Inorganic Nanoparticles and Organic Moieties — •SUBHOJIT DAS — Indian Institute of Technology Guwahati, Assam 781 039, India

SO-10.5 THU 15:00

Designing efficient field emitters from 1D nanostructure arrays — •INDRANI CHAKRABORTY, SRIPARNA CHATTERJEE, and PUSHAN AYYUB — Department of Condensed matter physics and Materials Science, Tata Institute of Fundamental Research, Homi Bhabha road, Colaba, Mumbai-400005, India

SO-10.6 THU 15:15

Facile fabrication and growth mechanism of nanowires to nanoparticles distribution involved TiO₂ anatase framework and its dielectric applications doped with W-182(AFLC) material host — KAUSHIK PAL¹, TAPAS PAL MAJUMDER¹, SUBHAS CHANDRA DEBNATH², and •ROMAN DABROWSKI³ — ¹Department of Physics, University of Kalyani, Kalyani-741235, West Bengal, India — ²Department of Chemistry,

University of Kalyani, Kalyani-741235, West Bengal, India
— ³Institute of Chemistry, Military University of Technol-

ogy, Warsaw, Poland-00908

NE-11: Atomic and molecular switches

Chaired by D. Vuillaume, Lille, FR

Time: Thursday 14:00–16:00

Location: Amphi. Richet

NE-11.1 THU 14:00

Charge-Transport Properties of Single-Molecule Diodes — ●EMANUEL LÖRTSCHER¹, BERND GOTSMANN¹, FLORIAN SCHWARZ^{1,2}, YOUNGU LEE³, LUPING YU³, and HEIKE RIEL¹ — ¹IBM Research - Zurich, CH-8803 Rüschlikon, Switzerland — ²University of Zurich, CH-8057 Zurich, Switzerland — ³University of Chicago, Chicago, IL 60637, USA

NE-11.2 THU 14:15

SPM study of conductance switching in Polyoxometalates — MINKO VAN DER MAAS¹, JUN YAN², JANNEKE DICKHOUT¹, SERHIY VASNYOV¹, DE-LIANG LONG², ●BAS HENDRIKSEN¹, LEE CRONIN², and SYLVIA SPELLER¹ — ¹Institute for Molecules and Materials, Radboud University, Nijmegen, The Netherlands — ²School of Chemistry, University of Glasgow, Glasgow, United Kingdom

Invited

NE-11.3 THU 14:30

A Single Atom Transistor — ●MICHELLE SIMMONS — Centre of Excellence for Quantum Computation and Communication Technology, University of New South Wales, Sydney, NSW 2052, Australia

NE-11.4 THU 15:00

STM tip-induced switching of individual phthalocyanine molecules on the III-V semiconductor surface InAs(111)A — ●CHRISTOPHE NACCI¹, KIYOSHI

KANISAWA², and STEFAN FÖLSCH¹ — ¹Paul Drude Institute for Solid State Electronics, Hausvogteiplatz 5-7, 10117 Berlin, Germany — ²NTT Basic Research Laboratories, NTT Corporation, 3-1 Morinosato-Wakamiya, Atsugi, Kanagawa, 243-0198, Japan

NE-11.5 THU 15:15

A Molecular Switch Based on the Jahn-Teller Effect — ●CHRISTOF UHLMANN, INGMAR SWART, and JASCHA REPP — Institute of Experimental and Applied Physics, University of Regensburg, 93053 Regensburg, Germany

NE-11.6 THU 15:30

Conductance statistics from a large array of sub-10 nm molecular junctions — KACEM SMAALI¹, ●NICOLAS CLEMENT¹, GILLES PATRIARCHE², and DOMINIQUE VUILLAUME¹ — ¹IEMN Cité scientifique avenue Poincaré 59652 Villeneuve d'Ascq, France — ²LPN Route de Nozay 91460 Marcoussis, France

NE-11.7 THU 15:45

Switching porphyrin derivatives on Au(111) — ●JOHANNES MIELKE¹, FELIX HANKE², MATS PERSSON², and LEONHARD GRILL¹ — ¹Fritz-Haber-Institut der MPG, Faradayweg 4-6, 14195 Berlin, Germany — ²The Surface Science Research Centre, The University of Liverpool, Liverpool, L69 3BX, United Kingdom

SC-8: Semiconductor surfaces III

Chaired by G. Dujardin, Orsay, FR

Time: Thursday 14:00–16:00

Location: Pavillon 1

SC-8.1 THU 14:00

Manipulation of the Charge and Configuration State of a Single Si Atom with a STM Tip and Light — ●ERWIN SMAKMAN, INEKE WIJNHEIJMER, JENS GARLEFF, and PAUL KOENRAAD — Eindhoven University of Technology, Netherlands

SC-8.2 THU 14:15

Charge Transfers From Doped Silicon Nanocrystals Probed By Non-Contact Atomic Force Microscopy — LUKASZ BOROWIK¹, DOMINIQUE DERESMES¹, THUAT NGUYEN-TRAN², PERE ROCA I CABARROCAS², and ●THIERRY MÉLIN¹ — ¹Institut d'Electronique de Microélectronique et de Nanotechnologie, IEMN-CNRS UMR8520, Avenue Poincaré BP60069 F-59652 Villeneuve d'Ascq Cedex, France — ²Laboratoire de Physique des Interfaces et des Couches Minces, CNRS-UMR 7647, Ecole Polytechnique, F-91128 Palaiseau Cedex, France

SC-8.3 THU 14:30

Direct measurement of dopants, traps and surface states in individual semiconductor nanowires — ●YOSSI ROSENWAKS¹, ELAD KOREN¹, EZER HALPERN¹, GEORGE ELIAS¹, AMIR BOAG¹, ANDREY KRETININ², HADAS SHTRIKMAN², ERIC HEMESATH³, and LINCOLN LAUHON³ — ¹Tel-Aviv University, Tel-Aviv, Israel — ²Weizmann Institute of Science, Rehovot, Israel — ³Northwestern University, Illinois, U.S.A

SC-8.4 THU 14:45

Atomically Precise Alignment of Sub 1nm Si Dangling-Bond Wires on H: Si (100) 2x1 Surface — ●HAI XU^{1,2}, SHI CHEN¹, KUAN ENG JOHNSON GOH³, LERWEN LIU¹, and JOHN RANDALL⁴ — ¹Zyvex Asia Pte Ltd, 4 Battery Road, #25-01 Bank of China Building, Singapore 049908 — ²Graphene Research Center, Department of Physics, National University of Singapore, Blk. S12 2

Science Drive 3, Singapore 117542 — ³Institute of Materials Research and Engineering, Agency for Science, Technology and Research (A*STAR), 3 Research Link, Singapore 117602 — ⁴Zyvx Labs LLC, Richardson, Texas 75081, USA

SC-8.5 THU 15:00

Understanding energy balance and interaction of different domain boundaries on the Ge/Si(111)-5x5 surface — •MARTIN ONDRACEK¹, ZDENEK CHVOJ¹, PINGO MUTOMBO¹, ANDREW MARK², ALASTAIR MC LEAN², and PAVEL JELINEK¹ — ¹Institute of Physics of the Academy of Sciences of the Czech Republic, Prague, Czech Republic — ²)Department of Physics, Engineering Physics and Astronomy, Queen's University, Kingston, On-

tario, Canada

Invited

SC-8.6 THU 15:15

Single impurities in semiconductors studied by STM — •PAUL KOENRAAD — COBRA, Eindhoven University of Technology, .O.Box 513, 5600 MB, The Netherlands

SC-8.7 THU 15:45

Theory on spin dynamics of single negatively charged nitrogen-vacancy defect centers in diamond — •ANDREI NISTREANU and CARLOS TEJEDOR — Física Teórica de la Materia Condensada, Universidad Autónoma de Madrid, Madrid, Spain

GT-8: Graphene: interaction with clusters, molecules and atoms

Chaired by C. F. Hirjibehedin, London, GB

Time: Thursday 14:00–15:45

Location: Pavillon 3

GT-8.1 THU 14:00

Van Hove singularity modification with gold clusters intercalation in epitaxial graphene — MAYA NAIR¹, •MARION CRANNEY¹, FRANCOIS VONAU¹, DOMINIQUE AUBEL¹, LAURENT SIMON¹, PATRICK LE FÈVRE², ANTONIO TEJEDA^{2,3}, FRANCOIS BERTRAN², AMINA TALEB IBRAHIMI², TAO JIANG⁴, and MARIE-LAURE BOCQUET⁴ — ¹Institut de Sciences des Matériaux de Mulhouse LRC 7228-CNRS, 4, rue des frères Lumière, 68093 Mulhouse, France — ²Synchrotron SOLEIL, L'Orme des Merisiers, Saint-Aubin, 91192 Gif sur Yvette, France — ³Institut Jean Lamour, CNRS-Université de Nancy-UPV-Metz, 54506 Vandoeuvre les Nancy, France — ⁴Université de Lyon, Laboratoire de Chimie, ENS de Lyon, 46 allée d'Italie, 69364 Lyon cedex 07, France

GT-8.2 THU 14:15

Structure and magnetism of cobalt intercalated graphene/Ir(111) by spin-polarized STM — •RÉGIS DECKER¹, JENS BREDE¹, NICOLAE ATODIRESEI², VASILE CACIUC², STEFAN BLÜGEL², and ROLAND WIESENDANGER¹ — ¹Institute of Applied Physics, University of Hamburg, Jungiusstrasse 11, 20355 Hamburg — ²Peter Grünberg Institut and Institute for Advanced Simulation, Forschungszentrum Jülich, D-52425 Jülich

GT-8.3 THU 14:30

Graphene-Ferromagnet Hybrid Nanostructures — •CHI VO-VAN¹, JOHANN CORAUX¹, NICOLAS ROUGEMAILLE¹, AMINA KIMOUCHE¹, OLIVIER FRUCHART¹, STEFAN SCHUMACHER², THOMAS MICHELY², VIOLETTA SESSI³, NICK B. BROOKES³, PHILIPPE OHRESSER⁴, ALPHA T. N'DIAYE⁵, and ANDREAS K. SCHMID⁵ — ¹Institut Néel, Grenoble, France — ²Universität zu Köln, Köln, Germany — ³ESRF, Grenoble, France — ⁴Synchrotron SOLEIL, Gif-sur-Yvette, France —

⁵Lawrence Berkeley National Laboratory, California, USA

GT-8.4 THU 14:45

Interaction of water molecules with epitaxial graphene — •SABINE MAIER¹, XIAOFENG FENG², JANINE SCHERER¹, and MIQUEL SALMERON² — ¹University of Erlangen-Nürnberg, Erlangen, Germany — ²Lawrence Berkeley National Laboratory, Berkeley, USA

GT-8.5 THU 15:00

Stacking Dependent Adatom-Graphene Interaction at the Graphene/ 6H-SiC(000-1) (2x2) Interface — FANNY HIEBEL, LAURENCE MAGAUD, •PIERRE MALLET, and JEAN-YVES VEUILLEN — Institut Néel, CNRS-UJF, Boîte Postale 166, 38042 Grenoble, France

GT-8.6 THU 15:15

Density functional calculation for various adatom adsorptions on graphene for using graphene as substrate of self-assembled nano structures — •AKIRA ISHII^{1,2} and KENGO NAKADA^{1,2} — ¹Department of Applied Mathematics and Physics, Tottori University Koyama, Tottori 680-8552, Japan — ²JST-CREST, 5 Sanbancho, Chiyoda-ku, Tokyo 102-0075, Japan

GT-8.7 THU 15:30

Development of Single Wall Carbon Nanotube Based Transparent and Flexible Field Electron Emission Displays — PRADIP GHOSH¹, DEBASISH GHOSH¹, ZAMRI YUSOP^{1,2}, •MASAKI TANEMURA¹, YASUHIKO HAYASHI¹, and TOMOHIKO NAKAJIMA³ — ¹Nagoya Institute of Technology, Gokiso-cho, Showa-ku, Nagoya 466-8555, Japan — ²Universiti Teknologi Malaysia, 81310, Skudai, Johor, Malaysia — ³National Institute of Advanced Industrial Science and Technology, Tsukuba Central 5, Higashi 1-1-1, Tsukuba, Ibaraki, 305-8565, Japan

SP-7: Advanced AFM measurements

Chaired by P. Grütter, Montreal, CA

Time: Thursday 14:00–16:00

Location: Pavillon 4

SP-7.1 THU 14:00

Resolving the Atomic Structure of a Vitreous Thin Silica Film — ●MARKUS HEYDE, LEONID LICHTENSTEIN, CHRISTIN BÜCHNER, STEFANIE STUCKENHOLZ, and HANS-JOACHIM FREUND — Fritz-Haber-Institut der Max-Planck-Gesellschaft, Faradayweg 4-6, 14195 Berlin, Germany

SP-7.2 THU 14:15

Molecular identification of surface adsorbates using NC-AFM — ●ZSOLT MAJZIK¹, ONDŘEJ KREJČÍ¹, WOJCIECH KAMIŃSKI², BENEDICT DREVNIOK³, MARTIN SETVÍN¹, ALASTAIR MCLEAN³, VLADIMÍR CHÁB¹, and PAVEL JELÍNEK¹ — ¹Institute of Physics AS CR, v. v. i., Prague Czech Republic — ²University of Wrocław, Institute of Experimental Physics, Wrocław, Poland — ³Queen's University, Department of Physics, Engineering Physics and Astronomy, Kingston, Canada

SP-7.3 THU 14:30

Heated AFM Microcantilevers with Ultrananocrystalline Diamond Tips — ●HOE JOON KIM¹, JONATHAN R. FELTS¹, SUHAS SOMNATH¹, ZHENTING DAI¹, TEVIS D. JACOBS², NICOLAIE MOLDOVAN³, JOHN A. CARLISLE³, ROBERT W. CARPICK², and WILLIAM P. KING¹ — ¹Department of Mechanical Science and Engineering, University of Illinois Urbana-Champaign, Urbana, IL 61801 — ²Department of Mechanical Engineering and Applied Mechanics, University of Pennsylvania, Philadelphia, Pennsylvania 19104 — ³Advanced Diamond Technologies Inc., Romeoville, Illinois 60446

SP-7.4 THU 14:45

Ultrafast Imaging with a Heated Atomic Force Microscope Cantilever — ●BYEONGHEE LEE¹, KEVIN KJOLLER², CRAIG B. PRATER², and WILLIAM P. KING^{1,3}

— ¹Department of Mechanical Science and Engineering, University of Illinois Urbana-Champaign, US — ²Anasys Instruments Inc., Santa Barbara CA, US — ³Department of Materials Science and Engineering, University of Illinois Urbana-Champaign, US

SP-7.5 THU 15:00

Imaging and Analyzing 3D Nano-Patterns Using 3D-AFM in Industrial Applications — ●SANG-JOON CHO, YONGHA LEE, JOONHUI KIM, BYUNG-WOON AHN, SANG-HAN CHUNG, and SANG-IL PARK — Park Systems, Suwon, 443-270 Republic of Korea

SP-7.6 THU 15:15

Parallel Nano Imaging and Lithography using a Cantilever Probe Array in a Commercial AFM System — ●SUHAS SOMNATH and WILLIAM P. KING — Department of Mechanical Science and Engineering, University of Illinois Urbana-Champaign, USA

SP-7.7 THU 15:30

Nanoscale infrared spectroscopy with the AFM — ●CRAIG B PRATER¹, KEVIN KJOLLER¹, MICHAEL LO¹, ROSHAN SHETTY¹, and ALEXANDRE DAZZI² — ¹Anasys Instruments, Santa Barbara CA USA — ²Laboratoire de Chimie Physique, Université Paris-Sud, Orsay France

SP-7.8 THU 15:45

Nanometer Scale Infrared Spectroscopy of Polymer Nanostructures Fabricated with Heated Probe Tips — ●JONATHAN R. FELTS¹, KEVIN KJOLLER², MICHAEL LO², CRAIG PRATER², and WILLIAM P. KING¹ — ¹University of Illinois Urbana Champaign, Urbana, IL, USA — ²Anasys Instruments, Santa Barbara, CA, USA

SN-7: Single magnetic atoms

Chaired by W. Wulfhekel, Karlsruhe, DE

Time: Thursday 14:00–16:00

Location: Amphi. Pasquier

SN-7.1 THU 14:00

SP-STM study of individual Co atoms on Pd/Co/Ir(111) — ●LIUDMILA DZEMIANTSOVA, ANDRÉ KUBETZKA, KIRSTEN VON BERGMANN, and ROLAND WIESENDANGER — Institut für Angewandte Physik, Universität Hamburg, Germany

SN-7.2 THU 14:15

Conductance-Driven Kondo Effect in a Single Cobalt Atom — ●DEUNG-JANG CHOI¹, MIRCEA V. RASTEI¹, PASCAL SIMON², and LAURENT LIMOT¹ — ¹Institut de Physique et Chimie des Matériaux de Strasbourg, Université de Strasbourg, CNRS, 67034 Strasbourg, France — ²Laboratoire de Physique des Solides, Université Paris-Sud, CNRS, 91405 Orsay, France

SN-7.3 THU 14:30

First-principles study of the magnetic interaction in single atom contacts — ●CESAR LAZO¹, NICOLAS NÉEL², JÖRG KRÖGER², RICHARD BERNDT³, and STEFAN HEINZE¹ — ¹Institute of Theoretical Physics and Astrophysics, University of Kiel, Germany — ²Institute of Physics, Technical University of Ilmenau, Germany — ³Institute of Experimental and Applied Physics, University of Kiel, Germany

Invited

SN-7.4 THU 14:45

Giant magnetic anisotropy for single Co adatoms on graphene — ●HARALD BRUNE — EPF Lausanne, Switzerland

SN-7.5 THU 15:15

Tunneling anisotropic magnetoresistance on the atomic scale — •KIRSTEN VON BERGMANN¹, MATTHIAS MENZEL¹, DAVID SERRATE¹, YASUO YOSHIDA¹, ANDRÉ KUBETZKA¹, ROLAND WIESENDANGER¹, and STEFAN HEINZE² — ¹Institute of Applied Physics, University of Hamburg, Germany — ²Institute of Theoretical Physics and Astrophysics, University of Kiel, Germany

SN-7.6 THU 15:30

Bottom-up fabrication of model magnetic systems — ALEXANDER AKO KHAJETOORIANS¹, •JENS WIEBE¹, BRUNO CHILIAN¹, SAMIR LOUNIS², STEFAN BLUEGEL²,

and ROLAND WIESENDANGER¹ — ¹Institute of Applied Physics, Hamburg University, Hamburg, Germany — ²Peter Gruenberg Institut and Institute for Advanced Simulation, Forschungszentrum Juelich, Juelich, Germany

SN-7.7 THU 15:45

Stable Atomic-scale Antiferromagnets created by Atom Manipulation — •SEBASTIAN LOTH^{1,2,3}, SUSANNE BAUMANN¹, CHRISTOPHER LUTZ¹, D. EIGLER¹, and ANDREAS HEINRICH¹ — ¹IBM Research - Almaden, San Jose, CA, USA — ²Center for Free-Electron Laser Science, Hamburg, Germany — ³Max Planck Institute for Solid State Research, Stuttgart, Germany

SA-8: Supramolecular architectures II

Chaired by F. D. Ogletree, Berkeley, US

Time: Thursday 14:00–15:45

Location: Room Bouin

SA-8.1 THU 14:00

Formation of hydrogen-bonded 2D supramolecular networks: intermolecular interactions and surface morphology — •JOAN TEYSSANDIER¹, MAHAMADOU SEYDOU¹, NICOLAS BATTAGLINI¹, XIAONAN SUN¹, SAMIA ZRIG¹, GUILLAUME ANQUETIN¹, BOUBAKAR DIAWARA^{2,3}, FRANÇOIS MAUREL¹, and PHILIPPE LANG¹ — ¹Univ Paris Diderot, Sorbonne Paris Cité, ITODYS, UMR 7086 CNRS, 15 rue J-A de Baïf, 75205 Paris Cedex 13, France — ²Laboratoire Interdisciplinaire Carnot de Bourgogne, UMR5209 CNRS, Université de Bourgogne, 9 av. A. Savary, BP47870, 21078 Dijon Cedex, France — ³Laboratoire de Physico-Chimie des Surfaces (CNRS UMR 7045), Ecole Nationale Supérieure de Chimie de Paris, 11 rue Pierre et Marie Curie, 75005 Paris, France

SA-8.2 THU 14:15

Site Specific Adsorption and Rocking of Fullerenes on Rare-Earth Porphyrin Double-Decker Complexes — •SARANYAN VIJAYARAGHAVAN¹, DAVID ÉCIJA¹, WILLI AUWÄRTER¹, SUSHOBHAN JOSHI¹, ARI P. SEITSONEN², KENTARO TASHIRO³, and JOHANNES V. BARTH¹ — ¹Physik Department E20, Technische Universität München, D-85748 Garching, Germany — ²University of Zurich, Physical Chemistry Institute, Winterthurerstrasse 190, 8057 Zurich, Switzerland — ³International Center for Materials Nanoarchitectonics, National Institute for Material Science (NIMS), 1-1 Namiki, Tsukuba, 305-0044, Japan

SA-8.3 THU 14:30

2D adaptive nanoporous networks with random features from flexible molecular modules — DAVID ECIJA¹, SARANYAN VIJAYARAGHAVAN¹, •WILLI AUWÄRTER¹, SUSHOBHAN JOSHI¹, KNUD SEUFERT¹, CLAUDIA AURISICCHIO², DAVIDE BONIFAZI^{2,3}, and JOHANNES V. BARTH¹ — ¹Physik Department E20, Technische Universität München, D-85748 Garching, Germany — ²University of Namur, Department of Chemistry, B-5000, Namur, Belgium — ³University of Trieste, Department of

Pharmaceutical Sciences, I-34127, Trieste, Italy

SA-8.4 THU 14:45

New Strategies for the Fabrication of Macrocyclic-Based Molecular Nanostructures on Solid Surfaces — MARTA TRELKA¹, DAVID ECIJA¹, CHRISTIAN URBAN¹, JOSE MARIA GALLEGOS^{2,3}, RODOLFO MIRANDA^{1,2}, and •ROBERTO OTERO^{1,2} — ¹Dep. de Física de la Materia Condensada, Universidad Autonoma de Madrid, Madrid, Spain — ²IMDEA-Nano, Madrid, Spain — ³Instituto de Ciencia de Materiales de Madrid-CSIC, Madrid, Spain

SA-8.5 THU 15:00

Janus Tectons: Self-Assembled 2D Array of Conjugated Units Spaced Apart From The Substrate Towardsr Nanophotonics — •ANDRÉ-JEAN ATTIAS¹, ANTOINE COLAS¹, DAVID KREHER¹, FABRICE MATHEVET¹, AMINA BAKHMA¹, AMANDINE BOICHEUX^{1,3}, BRETT HELMS², and FABRICE CHARRA³ — ¹Université Pierre et Marie Curie, Paris, France — ²LBNL, Berkeley, USA — ³CEA, Saclay, France

SA-8.6 THU 15:15

Lipid Monolayers : A promising new class of ultrathin organic dielectrics — •RACHA EL ZEIN, CARINE DUMAS, HERVÉ DALLAPORTA, and ANNE CHARRIER — CINaM, CNRS/Aix-Marseille Université, France

SA-8.7 THU 15:30

Molecular Ordering and Local Work Function of Pentacene on Ionic Crystalline Surfaces — •JULIA NEFF¹, PETER MILDE², JAN GÖTZEN³, and REGIN HOFFMANN-VOGEL¹ — ¹Physikalisches Institut and DFG-Center for Functional Nanostructures, Karlsruhe Institute of Technology, 76131 Karlsruhe, Germany — ²Technical University Dresden, Institute of Applied Photophysics, 01069 Dresden, Germany — ³Mechanical Engineering and Materials Science, Yale University, CT 06511, USA

Time: Thursday 20:00–23:00

Location: Conference Dinner

Conference Dinner on Boat

PL2: Plenary Session 2

Chaired by T. Ando, Kanazawa, JP, M. Antonietti, Postdam, DE

Time: Friday 9:00–12:15

Location: Sorbonne Great Amphi.

Plenary PL2.1 FRI 9:00
Some News on the Evolution of Spintronics —
•ALBERT FERT — UMCNRS/Thales, TRT, Palaiseau and
Université Paris-Sud, Orsay, France

Plenary PL2.2 FRI 9:45
**Nanoscience and Nanotechnology – the Self-
Organization Approach** — •JEAN-MARIE LEHN — ISIS,
Université de Strasbourg, Strasbourg, France

Break

Plenary PL2.3 FRI 10:45
Nanomechanical Diagnostics in Life Sciences —
•CHRISTOPH GERBER — Swiss Nanoscience Institute,
NCCR National Center of Competence for Nanoscience In-
stitute of Physics, University of Basel, Switzerland

Closing