

SCIENTIFIC PROGRAMME

Monday 2 July 2007

SESSION TIME 09:00-09:30

Opening Session

Room: **Viktoriahallen**

Welcome and Opening
IUVSTA Science Prize and IUVSTA Technology Prize

SESSION TIME 09:30-11:45

Plenary Session I

Room: **Viktoriahallen**

Time	Title	Abs No
09:30	Quantitative aspects of Auger electron spectroscopy and X-ray photoelectron spectroscopy <i>Powell, Cedric J</i> <i>National Institute of Standards and Technology, Surface and Microanalysis Science Division, Gaithersburg, United States</i>	PLE01-IS1
10:15	Recent developments and perspective in spintronics <i>Fert, Albert</i> <i>CNRS, UMP CNRS-Thales, Palaiseau, France</i>	PLE01-IS2
11:00	Nanochemistry. The synthesis, characterization and reaction studies of metal (1–10nm) monodispersed nanoparticles <i>Somorjai, Gabor</i> <i>University of California, Berkeley, United States</i>	PLE01-IS3

NS01 - STM on Semiconductor Surfaces

Room: Viktoriahallen

NS02 - Nanobiosensing

Room: K1

Time	Title	Abs No	Time	Title	Abs No
13:30	Nano-structured biosensors - An integrated digital biosensor with functional vesicle using oriented nanoWell array electrode <i>Kawai, Tomoji</i> Osaka University, ISIR-SANKEN, Osaka, Japan	NS01-IS1	13:30	AFM Technology Beyond Imaging :Applications Towards Personalized Medical Diagnostics <i>Gerber, Christoph</i> NCCR National Center of competence nanoscience, Institute of Physics, Basel, Switzerland	NS02-IS1
14:00	Tunnelling spectroscopy of individual molecules on ultrathin insulating films <i>Liljeroth, Peter; Repp, Jascha; Meyer, Gerhard</i> IBM Zurich Research Laboratory, Rüschlikon, Switzerland	NS01-Or1	14:00	Comparative study of atomic force mode and tunnelling mode tip-enhanced raman spectroscopy <i>Nguyen, Quang; Picardi, Gennaro; Ossikovski, Razvigor</i> LPICM, Ecole Polytechnique, Palaiseau, France	NS02-Or1
14:15	Nanoscale imaging of the transport field in a current-carrying two-dimensional electron gas <i>Homoth, J.; Wenderoth, M.; Druga, T.; Ulbrich, R. G.</i> Universität Göttingen, IV. Physikalisches Institut, Göttingen, Germany	NS01-Or2	14:15	Confocal raman microscopy in combination with atomic force microscopy - a tool for subwavelength optical resolution <i>Dorozhkin, Pavel¹; Gavriilyuk, Vasily²; Saunin, Sergey²; Kharintsev, S³; Loos, J³; Hoffmann, G³; de With, G³</i> ¹ NT-MDT, R&D, Moscow, Zelenograd, Russian Federation; ² NT-MDT, Moscow, Zelenograd, Russian Federation; ³ Eindhoven University of Technology, Eindhoven, Netherlands	NS02-Or2
14:30	Spatially resolved electrical characterization of In(Ga)As/GaAs quantum dot structures <i>Hakkarainen, T¹; Douhéret, O¹; Norell, S¹; Fu, L²; Jagadish, C²; Anand, S¹</i> ¹ Royal Institute of Technology, Microelectronics and Applied Physics, Kista, Sweden; ² Australian National University, Electronic Materials Engineering, Canberra, Australia	NS01-Or3	14:30	Light scattering and plasmon resonances in a metal film with sub-wavelength nano-holes <i>Anttu, Nicklas; Xu, HQ</i> Lund University, Division of Solid State Physics, Lund, Sweden	NS02-Or3
14:45	Electron transmission through complementary semiconductor junctions <i>Kobayashi, Katsuyoshi</i> Ochanomizu University, Department of Physics, Tokyo, Japan	NS01-Or4	14:45	Hybridized localized surface plasmon resonances in supported single and concentric gold nanorings prepared by colloidal lithography: application as ultrasensitive biosensors <i>Larsson, Elin M.¹; Alegret, Joan¹; Kall, Mikael¹; Sutherland, Duncan S.²</i> ¹ Chalmers University of Technology, Applied Physics, Gothenburg, Sweden; ² Aarhus University, iNANO center, Aarhus, Denmark	NS02-Or4
15:00	Imaging correlated wave functions of few-electron quantum dots: Theory and STS experiments <i>Bontani, Massimo¹; Maruccio, Giuseppe²; Janson, Martin²; Schramm, Andreas²; Meyer, Christian²; Matsui, Tomohiro²; Heyn, Christian²; Hansen, Wolfgang²; Molinari, Elisa¹; Wiesendanger, Roland²</i> ¹ CNR-INFN National Research Center S3, Modena, Italy; ² University of Hamburg, Institute of Applied Physics, Hamburg, Germany	NS01-Or5	15:00	A self-assembled device for DNA sequencing <i>Högberg, Björn; Olin, Håkan</i> Mid Sweden University, Engineering Physics and Mathematics, Sundsvall, Sweden	NS02-Or5

Monday 2 July 2007

ASS01 - Cultural Heritage and Oxidation Corrosion

Room: K2

VST01 - Vacuum Measurement and Calibration

Room: K11

Time	Title	Abs No	Time	Title	Abs No
13:30	Sulfur spectroscopy and the Vasa ship <i>Sandstrom, Magnus</i> Stockholm University, Physical, Inorganic and Structural Chemistry, Stockholm, Sweden	ASS01-IS1	13:30	Extreme high vacuum measurements and calibrations <i>Jousten, Karl</i> PTB, Vacuum Metrology, Berlin, Germany	VST01-IS1
14:00	In situ x-ray diffraction study of the initial dealloying of Cu3Au in sulphuric acid <i>Zegenhagen, Jorg</i> ESRF, Grenoble, France	ASS01-IS2	14:00	Investigation of ionisation gauges with Carbon Nanotube (CNT) field-emitter cathodes <i>Knapp, Wolfram¹; Schleussner, Detlef¹; Wüest, Martin²</i> ¹ Otto-von-Guericke-Universität Magdeburg, Institut für Experimentelle Physik, Magdeburg, Germany; ² INFICON AG, VCST, Balzers, Liechtenstein	VST01-Or1
			14:15	Characteristics of an axial-symmetric transmission gauge in water-rich environment: elimination of electron stimulated desorption ions <i>Takahashi, Naoki¹; Tuzi, Yutaka²; Arakawa, Ichiro³</i> ¹ Ulvac Inc., R&D Div., Chigasaki, Kanagawa, Japan; ² Ulvac Inc., Chigasaki, Kanagawa, Japan; ³ Gakushuin Univ., Toshima-ku, Tokyo, Japan	VST01-Or2
14:30	Non linear numerical analysis of FRP-Masonry bond behavior <i>Maruccio, Claudio¹; Lourenço, Paulo B.¹; Oliveira, Daniel V.¹; Basilio, Ismael¹; De Lorenzis, Laura²</i> ¹ University of Minho, Department of Civil Engineering, Guimaraes, Portugal; ² University of Lecce, Department of Innovation Engineering, Lecce, Italy	ASS01-Or1	14:30	101st Year of the Pirani thermal conduction gauge <i>Andreas, Bernhard¹; Wuest, Martin²</i> ¹ INFICON Ltd, VCST, Balzers, Liechtenstein; ² INFICON Ltd, Balzers, Liechtenstein	VST01-Or3
14:45	The h-BN/Ru(0001) nanomesh: micro- and macroscopic aspects of its etching by molecular oxygen <i>Goriachko, Andrii¹; Over, Herbert¹; Zakharov, Alex²</i> ¹ Justus Liebig University, Department of Physical Chemistry, Giessen, Germany; ² Lund University, Max-Lab, Lund, Sweden	ASS01-Or2	14:45	Reduction of pressure-measurement errors caused by x-ray currents in a hot-cathode-ionization gauge <i>Saeki, Hiroshi; Magome, Tamotsu</i> Japan Synchrotron Radiation Research Institute, Accelerator Division, Sayo, Hyogo, Japan	VST01-Or4
15:00	Macro-porous silicon formation on n-Si in room-temperature fluorohydrogenate ionic liquid <i>Ofer, Raz¹; Starosvetsky, David¹; Nohira, Toshiyuki²; Hagiwara, Rika²; Ein-Eli, Yair¹</i> ¹ Technion - Israel Institute of Technology, Department of Materials Engineering, Haifa, Israel; ² Kyoto University, Department of Fundamental Energy Science, Graduate, Kyoto, Japan	ASS01-Or3	15:00	Development of an in-situ type vacuum gauge calibration system <i>Lim, In-Tae¹; Kim, Jin-Tae¹; Nam, Seung-Jae²; Shin, Yong-Hyeon¹</i> ¹ KRISS, Vacuum Center, Daejeon, Republic of Korea; ² VTS company, Design and engineering, Daejeon, Republic of Korea	VST01-Or5

EMP01 - Metal/Semiconductor Interface

Room: K12

JS01 - Joint Session: ASS - Tribology and TF/SE - Physics and Chemistry of Protective Films I

Room: K13

Time	Title	Abs No	Time	Title	Abs No
13:30	Measurement and calculation of thermal resistance of Au/SiO₂ interface <i>Xu, Yibin; Goto, Masahiro; Wang, Haitao; Tanaka, Yoshihisa; Yamazaki, Masayoshi</i> National Institute for Materials Science, Tsukuba, Japan	EMP01-Or1	13:30	Thermal stability of alumina tooling coatings <i>Trinh, David¹; Back, Karin¹; Collin, Marianne²; Reineck, Ingrid²; Hultman, Lars¹; Högberg, Hans¹</i> ¹ Linköpings Universitet, Department of Physics, Chemistry and Biology (IFM), Linköping, Sweden; ² Sandvik Tooling AB, Stockholm, Sweden	JS01-Or1
13:45	Interface dependent spin polarization of a magnetic metal/semiconductor junction from first principles <i>Marangolo, Max; Finocchi, Fabio</i> INSP - University Paris 6 and CNRS, Paris, France	EMP01-Or2	13:45	Design and optimization of erosion resistant coating architectures containing superhard layers <i>Hasani, Salim¹; Klemberg-Sapieha, Jolanta¹; Martinu, Ludvik¹; Bielawski, Mariusz²; Beres, Wieslaw²; Balazinski, Marek³</i> ¹ Ecole Polytechnique, Engineering Physics, Montreal, Canada; ² National Research Council, IAR, Ottawa, Canada; ³ Ecole Polytechnique, Mechanical Engineering, Montreal, Canada	JS01-Or2
14:00	RBS investigation of annealed thin gold layers on crystalline germanium <i>Hayes, Michael¹; Schrempel, Frank²; Auret, Danie¹; Nel, Jackie¹; Coelho, Sergio¹</i> ¹ University of Pretoria, Physics Department, Pretoria, South Africa; ² Friedrich-Schiller-Universität, Institut für Festkörperphysik, Jena, Germany	EMP01-Or3	14:00	Effect of coating architecture on impact stress distribution in particulate erosion conditions <i>Bielawski, Mariusz¹; Beres, Wieslaw²</i> ¹ National Research Council Canada, Institute for Aerospace Research, Ottawa, Ontario, Canada; ² National Research Council Canada, Ottawa, Canada	JS01-Or3
14:15	Improvement on metal semiconductor contact conductance by using the array of the square valleys <i>Li, Jong-Lih¹; Kuan, C. H.¹; Mei, G. H.¹; Lo, H. C.²; Lee, C. K.¹; Chen, L. C.¹</i> ¹ National Taiwan University, Taipei, Taiwan; ² National Chiao Tung University, Hsinchu, Taiwan	EMP01-Or4	14:15	Interface interactions in hybrid organosilane-nitride films on polymer substrates <i>Mewani, S. Vinodh; Pinyol, Albert; Leterrier, Yves; Manson, Jan-Anders E.</i> EPFL, LTC-IMX, Lausanne, Switzerland	JS01-Or4
14:30	Fabrication and stability of Ir and IrO₂ Schottky contacts on n-SiC. <i>Kwietniewski, Norbert¹; Guziewicz, Marek¹; Piotrowska, Anna¹; Kaminska, Eliana¹; Golaszewska, Krystyna¹; Diduszko, Ryszard²</i> ¹ Institute of Electron Technology, Warsaw, Poland; ² Institute of Electronic Materials Technology, Warsaw, Poland	EMP01-Or5	14:30	Influence of surfactant on single ion track etching. Preparing and manipulating individual cylindrical micro wires <i>Man, Leo C. T.¹; Apel, Pavelf; Cheung, T.¹; Westerberg, Lars³; Yu, Peter K.N.¹; Zet, Cristian⁴; Spohr, Reimar⁵</i> ¹ City University Hong Kong, Department of Physics & Materials Science, Hong Kong, China; ² Joint Institute of Nuclear Research, Centre of Applied Physics, Dubna, Russian Federation; ³ Uppsala University, Svedberg Laboratory, Uppsala, Sweden; ⁴ Technical University Iasi, Department of Metrology, Iasi, Romania; ⁵ GSI Darmstadt and EuNITT, Darmstadt, Germany	JS01-Or5
14:45	Morphology and electric conductance of ultra-thin Cr contacts on 6H-SiC(0001): AFM and current-sensing AFM study <i>Ciszewski, Antoni; Mazur, Piotr; Zuber, Stefan; Grodzicki, Milosz</i> University of Wrocław, Institute of Experimental Physics, Wrocław, Poland	EMP01-Or6	14:45	Frictional property of TiBN thin films prepared by combinatorial sputter coating <i>Goto, Masahiro; Xu, Yibin; Kasahara, Akira; Tosa, Masahiro.</i> National Institute for Materials Science, Tsukuba, Japan	JS01-Or6
			15:00	Excellent durability of DLC film on carburized steel (JIS-SCr420) under a stress of 3.0GPa <i>Yakabe, Fumiya¹; Jinbo, Yoshio¹; Kumagai, Masao²; Horiuchi, Takahiro²; Kuwahara, Hideyuki³; Ochiai, Shojiro⁴</i> ¹ JATCO Ltd., Material & Process Development, Fuji City, Shizuoka, Japan; ² Kanagawa Industrial Technology Research Center, Edina City, Kanagawa, Japan; ³ Research Institute for Applied Sciences, Kyoto City, Japan; ⁴ Kyoto University, International Innovative Center, Kyoto City, Japan	JS01-Or7

ADV01 - Advanced Light Sources I

Room: K14

SS01 - Electronic Structure, Semiconductors I

Room: K16/17

Time	Title	Abs No	Time	Title	Abs No
13:30	Microelectronics Research at NSLS <i>Kao, Chi-chang</i> NSLS, Brookhaven National Laboratory, United States	ADV01-IS1	13:30	Scanning tunneling spectroscopy of Si donors on GaAs {110} <i>Teichmann, Karen; Wenderoth, Martin; Loth, Sebastian; Ulbrich, Rainer G.</i> Georg-August-Universität, IV. Physikalisches Institut, Göttingen, Germany	SS01-Or1
			13:45	Structural and electronic properties of K/GaAs(110) surface examined by STM/STS <i>Ishida, Nobuyuki; Sueoka, Kazuhisa.</i> Hokkaido University, Information Science and Technology, Sapporo, Japan	SS01-Or2
14:00	Recent Results in Hard X-ray Photoemission Obtained at the KMC-1 Beamline in BESSY <i>Gorgoi, Mihaela¹; Svensson, Svante²; Schaefers, Franz¹; Karis, Olof²; Siegbahn, Hans²; Braun, Walter¹; Eberhardt, Wolfgang¹</i> ¹ BESSY GmbH, Berlin, Germany; ² Uppsala University, Uppsala, Sweden	ADV01-Or1	14:00	Charge accumulation, hydrogen level line-ups and STM vacancies on the surfaces of InAs and other III-V semiconductors <i>Castleton, Christopher¹; Hoglund, Andreas²; Gothelid, Mats³; Qian, Meichun²; Mirbt, Susanne²</i> ¹ Uppsala University, Materials Chemistry, Uppsala, Sweden; ² Uppsala University, Physics, Uppsala, Sweden; ³ Kth, Imit, Stockholm, Sweden	SS01-Or3
14:15	The adress project at the swiss light source: a beamline for soft X-ray RIXS and arpes studies on correlated and nano-structured materials <i>Schmitt, Thorsten¹; Strocov, Vladimir¹; Schmidt, Thomas¹; Flechsig, Uwe¹; Chen, Qianhong²; Krempaski, Juraj³; Betemps, Robin¹; Kropf, Markus¹; Hess, Christoph¹; Widmer, Reto¹; Jaggi, Andreas¹; Raabe, Jörg¹; Imhof, Arthur¹; Jakob, Bruno¹; Vollenweider, Christian¹; Schönherr, Veit¹; Dubi, Fritz²; Ghiringhelli, Giacomo²; Dallera, Claudia²; Piazzalunga, Andrea²; Braicovich, Lucio²; Wang, Xiaoqiang²; Grioni, Marco²; Patthey, Luc¹</i> ¹ Paul Scherrer Institut, Swiss Light Source, Villigen PSI, Switzerland; ² Politecnico di Milano, Milano, Italy; ³ EPFL Lausanne, Lausanne, Switzerland	ADV01-Or2	14:15	The influence of composition grading on the strain relaxation and electronic structures of InAs/(InGaAs)/InP quantum ring <i>Moon, Pilkyung¹; Park, Kwangmin¹; Yoon, Euijoon¹; Leburton, Jean-Pierre²</i> ¹ Compound Semiconductor Epitaxy Laboratory, Seoul National University, Seoul, Republic of Korea; ² Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, Urbana, United States	SS01-Or4
14:30	Characterization of SPELEEM using multi-polarized soft x-rays at BL17SU/SPring-8 <i>Guo, F.Z.¹; Saitoh, Y.²; Muro, T.¹; Matsushita, T.¹; Wakita, T.¹; Ohashi, H.¹; Senba, Y.¹; Kinoshita, T.¹; Kobayashi, K.¹; Koshikawa, T.³; Yasue, T.³; Oura, M.⁴; Takeuchi, T.⁴; Shin, S.⁴</i> ¹ JASRI/SPring-8, Hyogo, Japan; ² JAERI/SPring-8, Hyogo, Japan; ³ OECU, Osaka, Japan; ⁴ RIKEN/SPring-8, Hyogo, Japan	ADV01-Or3	14:30	Ga droplet mediated surface ordering of GaP(111) - Structure and dynamics <i>Hilner, E.¹; Zakharov, A.²; Klanner, L.¹; Lundgren, E.¹; Andersen, J.¹; Mikkelsen, A.¹</i> ¹ Lund University, Synchrotron Radiation Research, Lund, Sweden; ² Lund University, MAX Lab, Lund, Sweden	SS01-Or5
14:45	Diffraction with high energy x-rays. Synchrotron instrumentation and nano science <i>Poulsen, Henning</i> Risø National Laboratory, Roskilde, Danmark	ADV01-IS2	14:45	Creation of accumulation layer on n-GaN and (n-InGaN) surfaces <i>Benemanskaya, Galina; Lapushkin, Mikhail; Timoshnev, Sergey.</i> Ioffe Physico-technical Institute, St.Petersburg, Russian Federation	SS01-Or6
			15:00	Atomically flat diluted magnetic semiconductors by thermal diffusion of transition metals into wide bandgap semiconductors <i>Dumont, Jacques¹; Mugumaoderha Cubaka, Mac¹; Seldrum, Thomas¹; Sporken, Robert¹; Kowalski, B.J.²; Pietrzyk, M.²; Houssiau, Laurent²; Douhard, Bastien²; Grzegory, I.⁴; Porowski, S.⁴</i> ¹ University of Namur, Laboratory of Physics for Electronic Materials, Namur, Belgium; ² Polish Academy of Sciences, Institute of Physics, Warsaw, Poland; ³ University of Namur, LISE, Namur, Belgium; ⁴ Polish Academy of Sciences, Institute of High Pressure Physics, Warsaw, Poland	SS01-Or7

TF/SE01: Fundamentals in Thin Film Growth (Nucleation...) I

Room: K21

PST/F01 - Plasma Science & Technology I

Room: K22

Time	Title	Abs No	Time	Title	Abs No
13:30	The STM view of the initial stages of polycrystalline Ag film formation <i>Michely, Thomas</i> University of Cologne, II. Physikalisches Institut, Cologne, Germany	TFSE01-IS1	13:30	Plasma processes and technologies at atmospheric pressure <i>Weltmann, Klaus-Dieter</i> Germany	PSTF01-IS1
14:00	Kinetic pathways leading to layer-by-layer growth: A multibillion time-step molecular dynamics study <i>Adamovic, Dragan¹; Munger, Peter¹; Chirita, Valeriu¹; Hultman, Lars¹; Greene, Joseph Edward²</i> ¹ Linköpings universitet, The Department of Physics, Chemistry and Biology, Linköping, Sweden; ² University of Illinois, Urbana, United States	TFSE01-Or1	14:00	Plasma control for nanoparticle formation and applications <i>Shiratani, Masaharu; Koga, Kazunori</i> Kyushu University, Department of Electronics, Fukuoka, Japan	PSTF01-IS2
14:15	Kinetic study of Ge wetting layer growth on Si(001) 2 x 1 surfaces from GeH4 UHV-CVD <i>Liu, Chie-Sheng; Hong, Lu-Sheng; Chou, Li-Wei; Jiang, Jyh-Chiang</i> National Taiwan Univ. of Science and Technology, Department of Chemical Engineering, Taipei, Taiwan	TFSE01-Or2			
14:30	STM and LEED studies of SiNx growth on TiN(001) and TiN(111): toward understanding interface structure in superhard nanocomposites <i>Bareño, Javier¹; Flink, Axel²; Petrova, Vania¹; Greene, J.E.¹; Hultman, Lars²; Petrov, Ivan¹</i> ¹ University of Illinois at Urbana-Champaign, MATSE/MRL, Urbana, Illinois, United States; ² Linköping University, Dept. of Physics and Measurement Technology, Linköping, Sweden	TFSE01-Or3	14:30	Effect of neutralization process on trench etch profile in low-angle forward-reflected neutral beam source <i>Hwang, Sung-Wook; Lee, Do-Haing; Kim, Yong-Jin; Shin, Chul-Ho; Choi, Seong-Woon; Kang, Chang Jin; Cho, Han Ku; Han, Woo-Sung</i> Samsung Electronics, Semiconductor R&D Center, Seoul, Republic of Korea	PSTF01-Or1
14:45	Cr/Sc Multilayer mirrors: Influence of impurities on amorphous-to-crystalline layer transformation and optical performance <i>Ghafoor, Naureen¹; Eriksson, Fredrik¹; Kressig, Ulrich²; Birch, Jens¹</i> ¹ Linköping University, Institutionen för Fysik, Kemi och Biologi, Linköping, Sweden; ² Forschungszentrum Rossendorf, Institut für Ionenstrahlphysik und Materialforschung, Dresden, Germany	TFSE01-Or4	14:45	Time-resolved plasma spectroscopy of metallic meteorite samples <i>Thomas, Pauchard; Maria Ofelia, Vieitez Hornos; Daniel, Molund; Olli, Launila; Lars-Erik, Berg</i> KTH (Royal Institute of Technology), Department of Applied Physics, Stockholm, Sweden	PSTF01-Or2
15:00	Symmetry breaking in the growth of 2D islands on Si(111) <i>Romanyuk, Konstantin; Cherepanov, Vasily; Voigtländer, Bert</i> Research Center Jülich, Institute of Bio- and Nanosystems, Jülich, Germany	TFSE01-Or5	15:00	Surface-states equilibration principle for the primary electrons in dielectric breakdown of gas phase in low-pressure dc discharge <i>Yasuda, Hirotsugu; Ledernez, Loic; Olcaytug, Fethi; Urban, Gerald</i> Albert-Ludwigs-Universität Freiburg, Department of Microsystems Engineering, Freiburg, Germany	PSTF01-Or3

NS03 - Nanostructuring I

Room: K23

NS04 - Cluster and Nanoparticles I

Room: K24

Time	Title	Abs No	Time	Title	Abs No
13:30	Positioning of nanoparticles via electrodynamic focusing <i>Choi, Mansoo; Lee, Heechul; You, Sukbeom; Pikhitsa, Peter V.; Shin, Hyuck; Woo, Chang Gyu</i> Seoul National University, Mechanical and Aerospace Engineering, Seoul, Republic of Korea	NS03-IS1	13:30	The first inorganic nanobuds and pea-pods: WS2 and MoS2 fullerenes grown by diffusion process <i>Viršek, Marko¹; Jesih, Adolf²; Mrzel, Aleš³; Remškar, Maja¹</i> ¹ Jozef Stefan Institute, Solid State Physics, Ljubljana, Slovenia; ² Jozef Stefan Institute, Inorganic Chemistry and Technology, Ljubljana, Slovenia; ³ Jozef Stefan Institute, Complex Matter, Ljubljana, Slovenia	NS04-Or1
			13:45	Softlanding of Ag309 and Ag561 clusters on a C60 monolayer at low temperatures and the observation of thermally activated cluster decay <i>Hoevel, Heinz¹; Duffe, Stefanie¹; Irawan, Thomas¹; Bielecki, Markus¹; Richter, Torsten¹; Sieben, Benedikt¹; Yin, Chunrong²; von Issendorff, Bernd²; Moseler, Michael³</i> ¹ Universitaet Dortmund, Experimentelle Physik I, Dortmund, Germany; ² Universitaet Freiburg, Fakultaeet fuer Physik, Freiburg, Germany; ³ Fraunhofer-Institut fuer Werkstoffmechanik, Freiburg, Germany	NS04-Or2
14:00	AFM Tip-characterizer fabricated from compound semiconductor superlattices <i>Itoh, Hiroshi¹; Ichimura, Shingo¹; Takano, Akio²; Kurosawa, Satoru²</i> ¹ National Institute of Advanced Industrial Science, Research Institute of Instrumentation Frontier, Tsukuba, Japan; ² NTT-AT, Atsugi, Japan	NS03-Or1	14:00	Size-dependent exchange bias of core-shell nanoparticles <i>Salazar-Alvarez, German¹; Sort, Jordi²; Surinyach, Santiago³; Baro, Maria Dolores³; Nogues, Josep⁴</i> ¹ Institut Catala de Nanotecnologia, Grup de Magnetisme, Bellaterra, Spain; ² ICREA and Universitat Autònoma de Barcelona, Physics, Bellaterra, Spain; ³ Universidad Autònoma de Barcelona, Physics, Bellaterra, Spain; ⁴ ICREA and Institut Catala de Nanotecnologia, Grup de Magnetisme, Bellaterra, Spain	NS04-Or3
14:15	Focused ion beam fabricated nanowire based electrodes for transport studies of biomolecules and nanoparticles <i>Valizadeh, Sima¹; Coleman, Victoria²; Topalian, Zareh¹; Strömberg, Mattias³; Welch, Ken³; Strömme, Maria³; Niklasson, Gunnar¹</i> ¹ Solid state of Physics, Engineering Sciences, Uppsala, Sweden; ² Material Chemistry, Material Chemistry, Uppsala, Sweden; ³ Nanotechnology and Functional Materials, Engineering Sciences, Uppsala, Sweden	NS03-Or2	14:15	Optical properties of single silicon quantum dots <i>Sychugov, Ilya¹; Elfström, Niklas¹; Valenta, Jan²; Linnros, Jan¹</i> ¹ Royal Institute of Technology, Microelectronics and Applied Physics, Kista - Stockholm, Sweden; ² Charles University, Chemical Physics and Optics, Prague, Czech Republic	NS04-Or4
14:30	Controlling the nanoscale deposition of polymers using heatable AFM cantilevers <i>Sheehan, Paul¹; King, William²; Laracuente, Arnaldo³; Lee, Woo Kyung³; Yang, Minchul³; Whitman, Lloyd³</i> ¹ Naval Research Laboratory, Chemistry, Washington, United States; ² University of Illinois, Urbana-Champaign, Urbana-Champaign, United States; ³ Naval Research Laboratory, Washington, United States	NS03-Or3	14:30	Exciting MgO nanocrystallites <i>McKenna, Keith¹; Sushko, Peter; Shluger, Alex</i> University College London, Physics and Astronomy, London, United Kingdom	NS04-Or5
14:45	Scanning probe microscopy as a tool for nanoimprint lithography <i>Pingue, Pasqualantonio¹; Menozzi, Claudia²; Dinelli, Franco³; Baschieri, Paolo³; Facci, Paolo²; Ascoli, Cesare²; Beltram, Fabio¹</i> ¹ Scuola Normale Superiore, NEST, Pisa, Italy; ² S3-INFN-CNR, Modena, Italy; ³ IPCF and CNR, Pisa, Italy	NS03-Or4	14:45	Synthesis, structure and field emission properties of carbon NanoBuds <i>Kauppinen, Esko</i> Helsinki University of Technology, Espoo, Finland	NS04-IS1
15:00	Development of nano-scale AFM lithography using a metal-tip cantilever <i>Akiyama, Kotone¹; Hamada, Masayuki²; Eguchi, Toyooki²; Hasegawa, Yukio²; Fujikawa, Yasunori¹; Sakurai, Toshio¹</i> ¹ IMR, Tohoku University, Sendai, Japan; ² ISSP, The University of Tokyo, Kashiwa, Japan	NS03-Or5			

SS02 - Electronic Structure I

Room: A2

SS03 - Magnetic Properties of Surfaces I

Room: A3

Time	Title	Abs No	Time	Title	Abs No
13:30	Metal atoms and model clusters on oxide surfaces: Electronic structure and reactivity <i>Freund, Hans-Joachim</i> Fritz-Haber-Institute, Chemical Physics, Berlin, Germany	SS02-IS1	13:30	Magnetic and chemical properties of the model system: Co/α-Fe2O3/Pt(111) <i>Bezencenet, Odile¹; Barbier, Antoine¹; Ohresser, Philippe²; Belkhou, Rachid²; Stanescu, Stefan²; Guittet, Marie-Josephe¹</i> ¹ Cea-Saclay, DSM/DRECAM/SPCSI, Gif sur Yvette, France; ² Soleil-synchrotron, Gif sur Yvette, France	SS03-Or1
			13:45	Thickness dependent exchange coupling in Fe/CoO/Fe(001) trilayers <i>Brambilla, Alberto¹; Sessi, Paolo¹; Cantoni, Matteo¹; Duò, Lamberto¹; Finazzi, Marco¹; Vavassori, Paolo²; Ciccacci, Franco¹</i> ¹ Politecnico di Milano, LNESS - Dipartimento di Fisica, Milano, Italy; ² Università di Ferrara and INFN S3, Dipartimento di Fisica, Ferrara, Italy	SS03-Or2
14:00	Detailed study of charge density waves phases transitions using Angle Resolved Photoemission <i>Asensio, Maria C</i> Synchrotron SOLEIL, Gif sur Yvette, France	SS02-Or1	14:00	Imaging complex atomic-scale spin structures by spin-polarized STM <i>Bode, Matthias</i> Argonne National Laboratory, Center for Nanoscale Materials, Argonne, United States	SS03-IS1
14:15	Characterization of Cu3N films using soft x-ray spectroscopy <i>Modin, Anders¹; Kvashnina, Kristina¹; Butorin, Sergej¹; Arapan, Sergui¹; Fallgren, Anna²; Ottosson, Mikael²; Ahuja, Rajeev¹; Werme, Lars¹; Nordgren, Joseph¹</i> ¹ Uppsala University, Department of Physics, Uppsala, Sweden; ² Uppsala University, Department of Materials Chemistry, Uppsala, Sweden	SS02-Or2			
14:30	Electronic structure of Mn/Si(111)-$\sqrt{3}\times\sqrt{3}$ <i>Hirvonen Grytzelius, Joakim; Zhang, Hanmin; Johansson, Lars</i> Karlstad University, Department of Physics, Karlstad, Sweden	SS02-Or3	14:30	The dance of the domains: excitations and switching in magnetic microstructures studied by x-ray microscopy <i>Raabe, Joerg; Buess, Matthias; Quitmann, Christoph</i> Paul Scherrer Institut, Villigen, Switzerland	SS03-IS2
14:45	MAX-phases investigated by soft X-ray emission spectroscopy <i>Magnuson, Martin</i> Fysiska Institutionen, Box 530, Uppsala, Sweden	SS02-Or4			
15:00	Low-energy collective acoustic excitations at metal surfaces <i>Diaconescu, Bogdan¹; Pohl, Karsten¹; Vattuone, Luca²; Savio, Letizia²; Hofmann, Philip³; Silkin, Vyacheslav⁴; Pitarke, Jose⁵; Chulkov, Eugene⁴; Echenique, Pedro³; Farias, Daniel⁶; Rocca, Mario²</i> ¹ University of New Hampshire, Durham, NH 03824, United States; ² Università di Genova, Genova, Italy; ³ University of Aarhus, Aarhus, Denmark; ⁴ Donostia International Physics Center, San Sebastian, Spain; ⁵ Materia Kondentsatuaren Fisika Saila, UPV/EHU, Bilbao, Spain; ⁶ Universidad Autonoma de Madrid, Madrid, Spain	SS02-Or5	15:00	Role of anisotropies on the asymmetric magnetization reversal behaviour in exchange-biased systems <i>Jiménez, Erika¹; Camarero, Julio¹; García-Martín, Jose Migue²; Hoffmann, Axel³; Sort, Jord⁴; Nogués, Josep⁴; Dieny, Bernard⁵; Miranda, Rodolfo¹</i> ¹ Universidad Autónoma de Madrid, Departamento de Física de la Materia Condensada, Madrid, Spain; ² IMM-CNM, CSIC, Tres Cantos, Madrid, Spain; ³ Argonne National Laboratory, Materials Science Division, Argonne, United States; ⁴ Universidad Autònoma de Barcelona, ICREA and Departament de Física, Barcelona, Spain; ⁵ SPINTEC, URA2512 CNRS/CEA, Grenoble, France	SS03-Or3

NS05 - Electric Transport through Molecules

Room: A4

EMP02 - Films: Epitaxial Growth

Room: A5

Time	Title	Abs No	Time	Title	Abs No
13:30	Quantum Transport in single molecules <i>Hou, Jianguo</i> University of Science and Technology, Hefei, China	NS05-IS1	13:30	Material issues of SiGe and Ge CMOS technologies <i>Claeys, Cor</i> IMEC, Leuven, Belgium	EMP02-IS1
14:00	Ab initio calculations for the single molecule conduction <i>Hirose, Kenji¹; Kobayashi, Nobuhiko²</i> ¹ NEC Corporation, Fundamental Research Laboratories, Tsukuba, Ibaraki, Japan; ² University of Tsukuba, Department of Applied Physics, Tsukuba, Ibaraki, Japan	NS05-Or1	14:00	Texture of Co1-xNixSi2 thin films on Si(100): the role of lattice mismatch and kinetics in epitaxial growth <i>Smeets, Dries¹; Detavernier, Christophe²; De Keyser, Koen²; Vantomme, Andre¹</i> ¹ Instituut Voor Kern- en Stralingsfysica and Inpac, Natuurkunde en Sterrenkunde - Kuleuven, Leuven, Belgium; ² Vakgroep Vaste-Stofwetenschappen, Universiteit Gent, Gent, Belgium	EMP02-Or1
14:15	Effect of anchoring group on the electrical conductance of a single molecule <i>Manabu, Kiguchi¹; Miura, Shinichi²; Hara, Kenji²; Masaya, Sawamura²; Murakoshi, Kei²</i> ¹ Hokkaido Univ., Division of Chemistry, Sapporo, Japan; ² Hokkaido Univ., Sapporo, Japan	NS05-Or2	14:15	Selective area growth of InP nanostructures by hydride vapour phase epitaxy <i>Olsson, F; Berrier, A; Hakkarainen, T; Anand, S; Lourdudoss, S</i> Royal Institute of Technology, Laboratory of Semiconductor Materials, Kista, Sweden	EMP02-Or2
14:30	Polaron vs coherent mechanism of the carrier transport through molecular layers sandwiched by electrodes <i>Tsukada, Masaru¹; Mitsutake, Kunihiro²</i> ¹ Waseda University, Graduate School of Science and Engineering, Tokyo, Japan; ² Canon Research Center, Canon Inc., Tokyo, Japan	NS05-Or3	14:30	An ab initio-based approach to initial growth processes on GaAs(111)B surface <i>Ito, Tomonori; Akiyama, Toru; Sano, Kosuke; Tatematsu, Hiroaki; Nakamura, Kohji</i> Mie University, Department of Physics Engineering, Tsu, Japan	EMP02-Or3
14:45	Ballistic electron and hole transport through individual molecules <i>Bobisch, Christian; Bannani, Amin; Zubkov, Evgeny; Weyers, Bastian; Moeller, Rolf</i> University of Duisburg-Essen, Department of Physics, Duisburg, Germany	NS05-Or4	14:45	Characterization of high-temperature annealing effects on (α-Al₂O₃)(0001) substrates <i>Qi, BingCui; Agnarsson, Bjorn; Jonsson, Kristjan; Olafsson, Sveinn; Gislason, Hafliði Petur</i> Science Institute, University of Iceland, Reykjavik, Iceland	EMP02-Or4
15:00	Kondo effect by controlled cleavage of a single molecule contact <i>Temirov, Ruslan; Lassise, Adam; Tautz, Stefan</i> Jacobs University Bremen, Bremen, Germany	NS05-Or5			

Poster Sessions – Poster Group 1

Monday 2 July from 15.45 to 17.45 in Hall A1 (exhibition hall)

Presenting authors are present by their poster during the poster sessions.

ASS - Complex Surfaces using Synchrotron Radiation

ASSP1-01

Electronic structure of MnAs dots grown on GaN(0001)

Kowalik, Iwona A.¹; Kowalski, Bogdan J.¹; Iwanowski, Ryszard J.¹; Kopalko, Krzysztof¹; Sawicki, Maciej¹; Lusakowska, Elzbieta¹; Sadowski, Janusz²; Adell, Martin³; Grzegory, Izabella⁴; Porowski, Sylwester⁴

¹Institute of Physics, Polish Academy of Sciences, Warsaw, Poland; ²MAX-lab, Lund University, Lund, Sweden; ³Chalmers University of Technology, Department of Physics, Goeteborg, Sweden; ⁴Institute of High Pressure Physics, PAS, Warsaw, Poland

ASSP1-02

Insulating properties of ultrathin KCl layers on Cu(100)

Nommiste, Ergo¹; Kikas, Arvo¹; Kisand, Vambola¹; Kooser, Kuno¹; Kaambre, Tanel¹; Ruus, Rein¹; Kukk, Edwin²; Valden, Mika³; Hirsimaki, Mika³; Jussila, Petri³; Lampimaki, Markus³; Aksela, Helena⁴; Aksela, Seppo⁴

¹University of Tartu, Institute of Physics, Tartu, Estonia; ²University of Turku, Department of Physics, Turku, Finland; ³Tampere University of Technology, Surface Science Laboratory, Tampere, Finland; ⁴University of Oulu, Department of Physical Sciences, Oulu, Finland

ASSP1-03

The surface hydrooxidation of epitaxial LaNiO_{3-x} thin films

Mickevičius, Sigita¹; Bondarenka, Vladimira¹; Grebinskij, Sergej¹; Lisauskas, Vaclovas¹; Sliuziene, Kristina¹; Vengalis, Bonifacijus¹; Orłowski, Bronisław²; Osinniy, Wiktor²; Drube, Wolfgang³

¹Semiconductor Physics Institute, Vilnius, Lithuania; ²Institute of Physics, Polish Academy of Science, Warsaw, Poland; ³Hasylab at Deutsches Elektronen-Synchrotron Desy, Hamburg, Germany

ASSP1-04

Core level spectroscopy of MoS₂

Mattila, Sari; Leiro, Jarkko; Heinonen, Markku; Laiho, Taina

University of Turku, Laboratory of Materials Science, Turku, Finland

ASSP1-05

LEED, GIXRD and photoemission study of a transition metal carbide : VC_{0.8}(110)

Gauthier, Yves¹; Zasada, Ilona²; De Santis, Maurizio¹; Langlais, Véronique³; Virojanadarad, C.⁴; Johansson, Leif⁵

¹Institut Néel, CNRS, MCMF, Grenoble 38042, France; ²University of Lodz, Solid State Physics Department, Lodz, Poland; ³Universitat Autònoma de Barcelona, Departament de Física, 08193 Bellaterra, Spain; ⁴Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany; ⁵Linköping University, Department of Physics, Linköping, Sweden

ASSP1-06

The on-board sample cleaver

Månsson, Martin¹; Claesson, Thomas¹; Chang, Johan²; Pailhés, Stéphane²; Mesot, Joël²; Patthey, Luc³; Momono, Naoki⁴; Oda, Migaku⁴; Ido, Masayuki⁴; Karlsson, Ulf O.⁵; Tjernberg, Oscar⁵

¹Royal Institute of Technology (KTH), Materials Physics, Kista, Sweden; ²ETHZ & PSI, Laboratory for Neutron Scattering, Villigen, Switzerland; ³Paul Scherrer Institut (PSI), Swiss Light Source (SLS), Villigen, Switzerland; ⁴Hokkaido University, Department of Physics, Sapporo, Japan; ⁵Royal Institute of Technology (KTH), Materials Physics, Stockholm, Sweden

ASSP1-07

X-ray *in situ* investigations of growing SiGe nanostructures on nominal substrates and patterned templates

Schulli, Tobias¹; Richard, Marie-Ingrid¹; Renaud, Gilles¹; Chen, Gang²; Zhong, Zhenyang²; Bauer, Günther²

¹CEA Grenoble, DRFMC/SP2M, 38054 Grenoble CEDEX 9, France; ²Johannes Kepler Universität Linz, Institut für Halbleiterphysik, 4040 Linz, Austria

ASSP1-07B

Thin films of dried linseed oil investigated with FTIR and ToF-SIMS

Grehk, Mikael T.; Berger, Robert; Bexell, Ulf

Dalarna University, Department of Materials Science, Borlänge, Sweden

ASS - Catalytic Materials and Catalysis

ASSP1-08

Biomimetic oxidation catalyst by immobilization of Co Porphyrin onto a silicon surface : influence of the substrate.

Gothelid, Emmanuelle¹; Ledung, Greger¹; Bäckvall, Jan-Erling²; Puglia, Carla³; Oscarsson, Sver⁴

¹Malardalen University, Dept. of Biology and Chemical Engineering, Eskilstuna, Sverige; ²Stockholm University, Dept of Organic Chemistry, Stockholm, Sverige; ³Uppsala University, dept of Surface Physics, Uppsala, Sverige; ⁴Malardalen University, Dept. Biology and Chemical Engineering, Eskilstuna, Sweden

ASSP1-09

In situ GISAXS evidence for Au/TiO₂(110) restructuring during the reaction of oxidation of CO

Saint Lager, Marie Claire¹; Bailly, Aude¹; Robach, Odile²; Mantilla, Miguel³; Lazzari, Remi³; Dolle, Pierre¹; Garaudee, Stephanie¹; Jupille, Jacques³

¹Institut Neel, Grenoble, France; ²ESRF, Grenoble, France; ³INSP, Paris, France

ASSP1-10

Adsorption of ethene on Pt(111) and ordered Pt₃Sn/Pt(111) surface alloys: A comparative HREELS- and DFT-Study

Essen, Jan Markus; Haubrich, Jan; Becker, Conrad; Wandelt, Klaus

University of Bonn, Institute of Physical and Theoretical Chemistry, Bonn, Germany

ASSP1-11

A hybrid density functional study of CO adsorption on metal surfaces

Stroppa, Alessandro; Konstantinos, Termentzidis; Joachim, Paier; Georg, Kresse; Juergen, Hafner

CMS and University of Vienna, Institute of Material Physics, Vienna, Austria

ASSP1-12

Study of the structural properties, surface morphology and photocatalytic activity of sol-gel derived transparent TiO₂ thin film

Majumder, Arpi; Biswas, Subhayan; Hossain, M. Faruk; Takahashi, Takakazu

University of Toyama, Toyama, Japan

ASSP1-13

Infrared reflection absorption study of carbon monoxide adsorption on Fe-deposited Pt(111) surface

Wadayama, Toshimasa; Osano, Hiroshi; Murakami, Koji; Maeyama, Toshiaki; Yoshida, Hiroto

Tohoku University, Graduate School of Engineering, Department of Materials Science, Sendai, Japan

ASSP1-14

Adsorption of benzene and phenol on the NiAl bimetallic surfaces

Borck, Øyvind; Svenum, Ingeborg-Helene; Borg, Anne

Norwegian University of Science and Technology, Department of Physics, Trondheim, Norway

ASSP1-15

Surface-structure dependence of photoluminescence at single crystal TiO₂ surfaces under photoinduced oxygen evolution reaction

Imanishi, Akihito¹; Okamura, Tomoaki²; Nakato, Yoshihiro¹

¹Osaka University, CREST/JST, Graduate School of Engineering Science, Osaka, Japan; ²Osaka University, Graduate School of Engineering Science, Osaka, Japan

ASSP1-16

Transient atomic configurations of supported gold nanocrystallites at finite temperature

McKenna, Keith; Sushko, Peter; Shluger, Alex

University College London, Physics and Astronomy, London, United Kingdom

ASSP1-17

Surface science investigations of speciation and reaction mechanisms in the water-gas shift reaction over Cu surfaces

Andersson, Klas¹; Schumacher, Nana¹; Nerlov, Jesper²; Chorkendorff, Ib¹

¹Center for Individual Nanoparticle Functionality, Dept. of Physics, Technical University of Denmark, DK-2800 Kgs. Lyngby, Denmark; ²Haldor Topsoe A/S, DK-2800 Kgs. Lyngby, Denmark

ASSP1-18

CO dissociation on stepped Rh(553) surfaces

Stroppa, Alessandro; Mittendorfer, Florian

CMS and University of Vienna, Institute of Material Physics, Vienna, Austria

ASSP1-19

Developing reactive force-fields for ceria and zinc oxide

Kullgren, Jolla¹; Raymand, David¹; van Duin, Adr²; Hermansson, Kersti¹; Herschend, Björn¹; Spångberg, Daniel¹
¹Materials Chemistry, Uppsala University, Uppsala, Sverige; ²California Institute of technology, Pasadena, United States

ASSP1-20

Surface electronic structure-catalytic activity of partially reduced W and Mo oxides for the isomerization of light alkanes

Al-Kandari, Shekah¹; Al-Kandari, Halima²; Al-Kharafi, Faiza²; Katrib, Ali¹
¹Kuwait Univesity-P.O.Box 5969, Chemistry Department, Kuwait City, Kuwait; ²Kuwait University, Chemistry Department, Kuwait City, Kuwait

ASSP1-21

Photoemission spectroscopy and electron diffraction study of Pd/tungsten oxide/W(110) epitaxial system

Masek, Karel¹; Nemsak, Slavomir¹; Mravcaková, Mirka¹; Blumentrit, Petr¹; Skala, Tomas¹; Skoda, Michal¹; Matolin, Vladimír¹
 Charles University, Fac of Mathematics and Physics, Dept of Surface and Plasma Science, Prague 8, Czech Republic

ASSP1-22

Kinetic Monte Carlo simulation of CO adsorption and the CO oxidation reaction on Cu₃Pt(111)

Luyten, Jan¹; Schurmans, Maarten¹; Creemers, Claude¹
 K.U. Leuven, Chemical Engineering Department, Leuven, Belgium

ASSP1-23

Surface properties of Ce-oxide based catalysts in hydrogen production from ethanol

Oszko, Albert¹; Toth, Mariann¹; Kecskes, Tamara¹; Erdohelyi, Andras¹
 University of Szeged, Dept. of Solid State and Radiochemistry, Szeged, Hungary

ASSP1-24

Nanocrystalline Ce_{0.45}Zr_{0.45}La_{0.10}O_{2-δ} for partial methane oxidation: preparation characterization and the origin of improved catalytic performance

Frolova, Elena¹; Ivanovskaya, Marya¹; Yaremchenko, Alexey²; Kharton, Vladislav²; Sadykov, Vladislav³
¹Research Institute for Physical Chemical Problems, Minsk, Belarus; ²University of Aveiro, Aveiro, Portugal; ³Boriskov Institute of Catalysis of SO RAN, Novosibirsk, Russian Federation

ASSP1-25

Tensile testing experiments of photocatalytic TiO₂ thin films deposited on polymer substrate

Marques, S.M.¹; Tavares, C.J.¹; Costa, C.M.¹; Sencadas, V.¹; Lanceros-Mendez, S.¹
 Universidade do Minho, Física (GRF), Guimarães, Portugal

ASSP1-26

Electron stimulated desorption study of the D₂¹⁸O adsorption on (100) surfaces of as-grown and thermochemically reduced MgO crystals doped with Ni or Co

Colera, Inmaculada¹; Cáceres, Daniel¹; González, Roberto¹; Román, Elisa²; de Segovia, Jose Luis²
¹Universidad Carlos III de Madrid, Física, Madrid, Spain; ²Consejo Superior de Investigaciones Científicas, Instituto de Ciencia de Materiales, Madrid, Spain

ASSP1-27

X-ray absorption fine structure investigations on Cr-doped titania thin layers

Teodorescu, Cristian-Mihail¹; Macovei, Dan¹; Mardare, Diana²; Nicula, Radu³; Burkel, Eberhard³
¹National Institute of Materials Physics, Low Dimensional Systems, Magurele-Ifov, Romania; ²"A.I. Cuza" University Iasi, Faculty of Physics, Iasi, Romania; ³University of Rostock, Institute of Physics, Rostock, Germany

ASSP1-28

Surface characterization of alkaline earth metal oxide catalysts by test reactions

Saadi, Adel¹; Rassoul, Zahia¹; Bettahar, Mohamed²
¹USTHB University, Faculty of Chemistry, Algiers, Algeria; ²University of Nancy, Faculty of Sciences, Nancy, France

ASSP1-29

The significant role of surface-induced bond energy variations in the emergence of oscillatory segregation in Pt-based alloys

Rubinovich, Leonid¹; Polak, Micha¹
 Ben-Gurion University of the Negev, Department of Chemistry, Beer-Sheva, Israel

ASSP1-30

Structural investigation of Nanosized Ce-Sm-O/Ru(Pt) catalysts, prepared by the organic-free sol-gel technique*Ivanovskaya, Marya¹; Frolova, Elena¹; Yaremchenko, Alexey²; Kharton, Vladislav²; Sadykov, Vladislav³**¹Research Institute for Physical Chemical Problems, Minsk, Belarus; ²University of Aveiro, Aveiro, Portugal; ³Borisev Institute of Catalysis of SO RAN, Novosibirsk, Russian Federation*

ASSP1-31

Photocatalytic dependence of CH₃OH decomposition on nitrogen doped TiO₂ films prepared by reactive sputtering*Nezuka, Takayuki; Biswas, Subhayan; Hossain, M. Faruk; Takahashi, Takakazu**University of Toyama, Toyama, Japan*

ASSP1-32

Nanocrystalline nickel thin film growth on various substrates*Bernstorff, Sigrid¹; Dubcek, Pavo²; Radic, Nikola²**¹Sincrotrone Trieste, Basovizza (TS), Italy; ²Rudjer Boskovic Institute, Zagreb, Croatia*

ASSP1-33

Gold-based catalysts: composition, structure and reactivity. Surface Analysis by Low Energy Ion Scattering Spectroscopy.*Gluhoj, A.C.¹; Nieuwenhuys, B.E.¹; Brongersma, H.H.²; Bakker, J.W.¹**¹Leiden University, Leiden, Netherlands; ²Calipso BV, Eindhoven, Netherlands***ASS - Adhesion**

ASSP1-34

First-principles calculations of coherent and incoherent metal/MgO interfaces*Matsunaka, Daisuke; Ogata, Shigenobu; Shibutani, Yoji**Osaka University, Osaka, Japan*

ASSP1-35

Adhesion properties at the various interfaces between Cu film and polyimide substrates*Cho, Sang Jin; Bae, In Seob; Boo, Jin Hyo**Sungkyunkwan Univ., Dept. of Chemistry, Suwon, Republic of Korea*

ASSP1-36

Biocompatible diamond-like carbon films with improved adhesion onto steel substrates*Braic, Viorel; Balaceanu, Mihai; Braic, Mariana; Zoita, Catalin-Nicolae; Kiss, Adrian; Vladescu, Alina**National Institute For Optoelectronics, Tehnoprof Research Center, Magurele, Romania*

ASSP1-37

Atomic hydrogen dissolution of Si nanowires on Ag(110)*Angot, Thierry¹; Palmgren, Pa²; Layet, Jean-Marc¹; Le Lay, Guy³; Göthelid, Mats⁴**¹Aix-Marseille University, PIIM -Case 241, Marseille, France; ²Royal Institute of Technology, MAP, ICT, Stockholm, Sweden; ³Aix-Marseille University, CRMCN, Marseille, France; ⁴Royal Institute of Technology, MAP, ICT, Stockholm, France*

ASSP1-37B

Vacuum sensor of superwide measurement range*Deulin, Evgeny**Bauman Moscow State Technical University, Mechanical Engineering, Moscow, Russian Federation***ASS - Biomaterials**

ASSP1-38

Effects of particle size on tissue distribution and physical response of intravenously administered silica@RITC nanoparticles*Cho, Minjung¹; Han, Beom Seok¹; Kim, Shinhee¹; Cho, Wan-Seob²; Kim, Hyoung-Ook¹; Choi, Mina¹; Kim, Seung Hee²; Jeong, Jayoung¹**¹National Institute of Toxicological Research, Seoul, Republic of Korea; ²Institute of Toxicological Research, Seoul, Republic of Korea*

ASSP1-39

Transition from liposomes to supported planar bilayers on titanium oxide*Cho, Sang-Joon¹; Cho, Nam-Joon²; Lee, Dong-Jin¹; Kim, Eunpa¹**¹Park Systems, Suwon, Republic of Korea; ²Stanford University, Stanford, United States*

ASSP1-40

AFM Detection of Membrane permeabilization by Streptolysin-O*Cho, Sang-Joon¹; Lee, Dong-Jin¹; Kim, Eunpa¹; Cho, Nam-Joon²**¹Park Systems, Suwon, Republic of Korea; ²Stanford University, Stanford, United States*

ASSP1-41

Scaffold fabrication using coiled cell encapsulated alginate microfiber*Choi, WooSeok; Kim, Byung; Kim, InTae; Lim, Geunbae**POSTECH, Department of Mechanical Engineering, Pohang, Republic of Korea*

ASSP1-42

Study of Electroeroded Implant Surfaces and Characterisation of Surface Layer*Stary, Vladimír¹; Baèáková, Lucie²; Jirka, Ivan³; Peřina, Vratislav⁴; Vorlíček, Vladimír⁵; Fencel, Jaroslav⁶**¹Faculty of Mechanical Engineering of CTU in Prague, Dept. of Mat. Engn., Prague, Czech Republic; ²Institute of Physiology of AS CR, Prague, Czech Republic; ³Institute of Physical Chemistry of AS CR, Prague, Czech Republic; ⁴Nuclear Physics Institute of AS CR, Řež near Prague, Czech Republic; ⁵Institute of Physics of AS CR, Prague, Czech Republic; ⁶Beznoska s.r.o., Kladno, Czech Republic*

ASSP1-43

Synthesis of hydroxyapatite films by the HF-magnetron sputtering method*Ievlev, Valentin¹; Belonogov, Evgeniy²; Kostuchenko, Alexander²; Kombarov, Vladimir³; Barinov, Sergey³; Fadeeva, Inna³; Putyaev, Valeriy⁴; Tretyakov, Yuriy⁴**¹The Voronezh State University, Voronezh, Russian Federation; ²The Voronezh State Technical University, RSRLME, Voronezh, Russian Federation; ³IPCPCM Russian Academy of Science, Moscow, Russian Federation; ⁴Moscow State University, Moscow, Russian Federation*

ASSP1-44

Infection free titanium alloy biomaterials by thiol based plasma polymerisation technique*Çökeller, Dilek¹; Caner, Hakan²; Saglam, Necdet³; Göktas, Hilal⁴; Topaçli, Cafer⁵; Mutlu, Mehmet¹**¹Hacettepe University, Plasma Aided Bioengineering&Biotechnology Res.Lab., Ankara, Turkey; ²Baskent University, Department of Neurosurgery, School of Medicine, Ankara, Turkey; ³Hacettepe University, Department of Science Education, Ankara, Turkey; ⁴Canakkale Onsekiz Mart University, Department of Physics, Canakkale, Turkey; ⁵Hacettepe University, Department of Physics, Faculty of Engineering, Ankara, Turkey*

ASSP1-45

The effect of PSII treatment on the morphology and chemistry of titanium biomaterials*Kang, Byung-Soo¹; Byon, Eungsun²; Kim, Jong-Kuk²; Jeong, Yongsoo²; Sul, Young-Taeg¹**¹University of Gothenburg, Inst. Clinical Sciences, Dept. of Biomaterials, Gothenburg, Sweden; ²Korea Institute of Machinery and Materials, Changwon, Republic of Korea*

ASSP1-46

Interactions of charged lipid structures studied by QCM-D and fluorescence microscopy*Kunze, Angelika; Svedhem, Sofia; Kasemo, Bengt**Chalmers University, Applied Physics, Göteborg, Sweden*

ASSP1-47

Hyaluronic acid grafting on silicon surfaces : toward an increased biocompatibility of brain micro electrode arrays*Gothelid, Emmanuelle¹; Benito, Nuria²; Bongard, Markus²; Fernandez, Eduardo²; Geuens, Caroline³; Neves, Herc³; Oscarsson, Sven⁴**¹Malardalen University, Dept of Biology and Chemical Engineering, Eskilstuna, Sverige; ²Universidad Miguel Hernández de Elche, Department of Histology, Alicante, Spain; ³IMEC, Microsystems, Components & Packaging Division, Leuven, Belgium; ⁴Malardalen University, dept of Biology and Chemical Engineering, Eskilstuna, Sverige*

ASSP1-48

Supported lipid structures as model systems for membrane associated interactions*Svedhem, Sofia; Kunze, Angelika; Axelsson, Pauline; Ekstrand, Helena; Petronis, Sarunas; Zäch, Michael; Edvardsson, Malin; Seantier, Bastien; Kasemo, Bengt**Chalmers University of Technology, Dept. of Applied Physics, Göteborg, Sweden*

ASSP1-49

First principles calculations for the adsorption of Adenine and Cytosine on Si(001) surface*Ishii, Akira; Miyoshi, Tomohiro; Nagao, Yoji**Tottori University, Department of Applied Mathematics and Physics, Tottori-City, Japan*

ASSP1-50

Plasma etched microtrenches as surface for adherent cell layers*Wanzenboeck, Heinz; Bertagnolli, Emmerich**Vienna University of Technology, Vienna, Austria*

ASSP1-51

Adhesion control of mesenchymal stem cells on polystyrene surface by carbon negative-ion implantation through patterning mask

Tsuji, Hiroshi; Sommani, Piyanuch; Hattori, Mitsutaka; Yamada, Tetsuya; Sato, Hiroko; Gotoh, Yasuhito; Ishikawa, Junzo
 Kyoto University, Electronic Science and Engineering, Kyoto, Japan

ASSP1-52

Surface chemistry analysis of clinical oral implants

Kang, Byung-Soo¹; Lee, Hyun-Ju²; Oh, Se-Jung³; Sul, Young-Taeg¹

¹University of Gothenburg, Inst. Clinical Sciences, Dept. of Biomaterials, Gothenburg, Sweden; ²Seoul National University, National Center for Inter-University Research Faci, Seoul, Republic of Korea; ³Seoul National University, Dept. of Physics, Seoul, Republic of Korea

NS + TF/SE - Thin Films, Semiconductors, Insulators

NSP1-53

Electrical Properties of Si-VO₂ Heterojunction

Manuilov, Sergey; Velichko, Andrey; Stefanovich, Genrikh; Pergament, Alexander

Petrozavodsk State University, Physical-Technical Department, Petrozavodsk, Russian Federation

NSP1-54

Modification of atomic structure of thin amorphous V₂O₅ films under UV laser irradiation

Cheremisin, Alexander¹; Putrolainen, Vadim¹; Loginova, Sveta¹; Pergament, Alexander¹; Grishin, Alexander²; Khartsev, Sergey²; Velichko, Andrey¹

¹Petrozavodsk State University, Physical-Technical Department, Petrozavodsk, Russian Federation; ²Royal Institute of Technology, Department of Condensed Matter Physics, Stockholm-Kista, Sweden

NSP1-55

Semiconductor nanostructures studied with positron annihilation spectroscopy

Slotte, Jonatan

Laboratory of Physics, Helsinki University of Technology, HUT, Finland

NSP1-56

Surface standing waves on Cu-9%Al(111)

Yu, Yinghui; Sagisaka, Keisuke; Fujita, Daisuke

National Institute for Materials Science, Tsukuba, Japan

NSP1-57

Electrically active defects in silicon and germanium induced by fast neutron-irradiation

Capan, Ivana¹; Pivac, Branko¹; Jacimovic, Radojko²; Markevich, Vladimir²; Peaker, Anthony³

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NSP1-58

Semiconductor-Metal Transition in Nanosize Boron-Doped Diamond

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NSP1-59

Morphology versus conductivity of nanocomposite films

Svec, Martin; Novak, Stanislav; Hrach, Rudolf

Faculty of Science, J. E. Purkinje University, Usti nad Labem, Czech Republic

NSP1-60

Effect of plasticity mismatch on mechanical properties of nanoscale Ag/X (X=Cu, Co, W) multilayers

Pan, Feng; Wen, Shengping; Zong, Ruilei; Zeng, Fei; Gao, Yang

Tsinghua University, Department of Materials Science and Engineering, Beijing, China

NSP1-61

Formation of silicon nanostructures in SiO₂

Pivac, Branko¹; Capan, Ivana¹; Dubcek, Pavo¹; Janicki, Vesna¹; Zorc, Hrvoje¹; Bernstorff, Sigrid²

¹R. Boskovic Institute, Materials Physics, Zagreb, Croatia; ²Sincrotrone Trieste, Basovizza (Trieste), Italy

NSP1-62

Comparative study of electrical properties of nano to polycrystalline diamond films*Tibor, Izak¹; Marian, Vojs¹; Alexander, Kromka²; Jarmila, Skriniarova¹; Marian, Vesely¹; Miroslav, Michalka³; Tomas, Kovacik¹; Jaroslav, Kovac¹*¹Slovak University of Technology, Microelectronics, Bratislava, Slovakia; ²Institute of Physics, Academy of Science of the CR, Microelectronics, Prague, Czech Republic;³International Laser Center, Bratislava, Slovakia

NSP1-63

Ion beam deposition of nanoscaled TiN and CrN films on silicon*Styervoyedov, Andriy¹; Farenik, Vladimir²; Loparev, Eduard³*¹Scientific Centre of Physical Technologies, Kharkov, Ukraine; ²V.N. Karazin Kharkov National University, Kharkov, Ukraine; ³Institute of Surface Engineering, Kharkov, Ukraine

NSP1-64

Structural and magnetic properties of nanocrystalline Fe doped alumina*Venkatachalam, Sabarinathan; Sinna Nadar, Ramasamy**University Of Madras, Dept. of Nuclear Physics, Guindy Campus, Chennai, India*

NSP1-64B

Effects of surface treatments on electrical characteristics of Au-GaN Schottky barrier diodes*Diale, Mmantsae; Auret, F. D.**University of Pretoria, Physics, Pretoria, South Africa***NS - SPM: AFM-RELATED**

NSP1-65

Atomic Force Microscopy manipulation with ultrasonic excitation*Cuberes, M. Teresa**University of Castilla-La Mancha, Applied Mechanics and Project Engineering, Almadén, Spain*

NSP1-66

Theoretical investigation of general feature of non-contact AFM image in liquid environment*Harada, Masanori; Tsukada, Masaru**Waseda University, Department of Nano-Science and Nano-Engineering, Tokyo, Japan*

NSP1-67

Structural and magnetic properties of Fe/W(001) studied by force microscopy*Schmidt, Rene; Pi, Ung Hwan; Schwarz, Alexander; Wiesendanger, Roland**University of Hamburg, Institute of Applied Physics, Hamburg, Germany*

NSP1-68

Abstract withdrawn

NSP1-69

Characterizing atomic species and defects on MgO(001) by site-specific force spectroscopy*Pakarinen, Olli¹; Foster, Adam¹; Ishiyama, Atsushi²; Oyabu, Noriaki²; Abe, Masayuki²; Custance, Oscar²; Morita, Seizo²*¹Helsinki University of Technology, Laboratory of Physics, Espoo, Finland; ²Osaka University, Graduate School of Engineering, Osaka, Japan

NSP1-70

Dynamical processes in non-contact atomic force microscopy: Real time simulations*Watkins, Matthew; Trevelyan, Tom; Shluger, Alexander**UCL, Physics and Astronomy, London, United Kingdom*

NSP1-71

Abstract withdrawn

NSP1-72

Direct real-space imaging of the c(2x8)/(2x4) GaAs (001) surface structure*Kołodziej, Jacek¹; Goryl, Maria¹; Konior, Jerzy¹; Reichling, Michael²; Szymanski, Marek¹*¹Jagiellonian University, Physics, Astronomy and Applied Computer Science, Krakow, Poland; ²Osnabrueck University, Physics, Osnabrueck, Germany

NSP1-73

Abstract withdrawn

NSP1-74

Quantitative characterizations of frequency modulation atomic force microscopy performance in low-Q environments*Fukuma, Takeshi**Kanazawa University, Kanazawa, Japan*

NSP1-75

High resolution chemical analysis by nc-afm using photo-switching single molecular tip*Takamatsu, Daiko¹; Yamakoshi, Yoko²; Fukui, Ken-ichi¹**¹Tokyo Institute of Technology, Chemistry, Tokyo, Japan; ²University of California at Santa Barbara, Chemistry and Biochemistry, Santa Barbara, United States*

NSP1-76

Drift-compensated data acquisition performed at room temperature with frequency modulation atomic force microscopy*Abe, Masayuki¹; Sugimoto, Yoshiaki²; Custance, Oscar²; Morita, Seizo²**¹Osaka University & PRESTO-JST, Suita, Japan; ²Osaka University, Suita, Japan*

NSP1-77

NC-AFM and STM simulations of H-terminated Si(001)2x1 surfaces with defects*Masago, Akira¹; Watanabe, Satoshi¹; Tagami, Katsunori²; Tsukada, Masaru²**¹The University of Tokyo, Department of Materials Engineering, Tokyo, Japan; ²Waseda University, Department of Nano-Science and Nano-Engineering, Tokyo, Japan*

NSP1-78

Constant height mode in SFM imaging: Pd nanoclusters on MgO*Pakarinen, Olli¹; Barth, Clemens²; Foster, Adam¹; Henry, Claude²**¹Helsinki University of Technology, Laboratory of Physics, Espoo, Finland; ²CNRS, CRMCN, Univ Aix Marseille 2, Marseille, France*

NSP1-79

Controlled manipulation of thiol-functionalised gold nanoparticles on Si(100) surface by dynamic force microscopy*Paolicelli, Guido¹; Vanossi, Andrea²; Mouglin, Karine³; Valeri, Sergio²**¹CNR-INFM National Research Center S3, Modena, Italy; ²CNR-INFM S3 and Univ. of Modena e Reggio Emilia, Modena, Italy; ³I.C.S.I. - C.N.R.S. - UPR 9069, Mulhouse, France*

NSP1-80

The role of functionalized groups in the formation of submolecular contrast in the damping signal of NC-AFM*Kunstmann, Tobias¹; Fendrich, Markus¹; Möller, Rolf**University of Duisburg Essen, Physics, Duisburg, Germany*

NSP1-81

Exploring the optimal conditions for high resolution imaging of DNA in vacuum.*Tobenas, Susana; Di Santo, Giovanni; Adamcik, Jozef; Dietler, Giovanni**EPFL, LPMV, Lausanne, Switzerland*

NSP1-82

Force evaluation by FM-AFM in UHV on soft samples*Di Santo, Giovanni; Tobenas, Susana; Adamcik, Jozef; Dietler, Giovanni**EPFL, IPMC-LPMV, Lausanne, Switzerland***NS - SPM: Kelvin Probe, Electrical Probe**

NSP1-83

Abstract withdrawn

NSP1-84

Photovoltage mapping on polycrystalline silicon solar cells by Kelvin Probe Force Microscopy*Takahara, Masaki¹; Igarashi, Takatoshi¹; Ujihara, Toru²; Takahashi, Takuji¹**¹University of Tokyo, Tokyo, Japan; ²Nagoya University, Nagoya, Japan*

NSP1-85

Dissipative force modulation Kelvin probe force microscopy applying doubled frequency ac bias voltage*Sugawara, Yasuhiro; Nomura, Hikaru; Li, Yan Jun; Naitoh, Yoshitaka; Kageshima, Masami**Osaka University, Department of Applied Physics, Suita, Japan*

NSP1-86

Minority carrier diffusion length measurements on polycrystalline silicon solar cells by kelvin probe force microscopy*Takahara, Masaki¹; Ujihara, Toru²; Takahashi, Takuji¹*¹University of Tokyo, Tokyo, Japan; ²Nagoya University, Nagoya, Japan

NSP1-87

Local conductance measurement of few-layer graphene on SiC substrate using an integrated nanogap probe*Nagase, Masao; Hibino, Hiroki; Kageshima, Hiroyuki; Yamaguchi, Hiroshi**Nippon Telegraph and Telephone Corporation, NTT Basic Research Laboratories, Atsugi, Japan*

NSP1-88

Fabrication and evaluation of improved mos transistor probe with the nano tip for surface electric properties*Lee, Sang Hoon; Lim, Geunbae; Moon, Wonkyu**Pohang University of Science and Technology, Mechanical Engineering, Pohang, Republic of Korea*

NSP1-89

Ultra-sharp tungsten tips for STM - preparation, cleaning and testing*Setvin, Martin; Ostadal, Ivan; Turcinkova, Dana; Sobotik, Pavel; Javorsky, Jakub**Faculty of Mathematics and Physics, Charles Univ., Departement of Surface and Plasma Science, Prague, Czech Republic*

NSP1-90

Characterization of small-scale batch-fabricated carbon nanofiber probes*Kitazawa, Masashi¹; Ohta, Ryo¹; Sugita, Yoshitaka²; Tanaka, Junya²; Tanemura, Masaki²*¹Olympus Co.Ltd., 6666 Inatomi, Tatsuno, Kami-Ina-Gun, Nagano, Japan; ²Nagoya Institute of Technology, Gokiso-cho, Showa-ku, Nagoya, Japan

NSP1-91

Electrical characterization of focused ion beam induced damage in silicon by scanning spreading resistance microscopy*Beuer, Susanne¹; Yanev, Vasil¹; Rommel, Mathias¹; Petersen, Silke¹; Bauer, Anton J.¹; Ryssel, Heiner²*¹Fraunhofer IISB, Erlangen, Germany; ²FA-University Erlangen-Nuremberg, Chair of Electron Devices, Erlangen, Germany

NSP1-92

Scanning tunneling microscopy on tri-layer gate dielectric stack of Sc2O3/La2O3/SiOx *Ong, Yi Ching¹; O'Shea, Sean Joseph²; Ang, Diing Shen¹; Pey, Kin Leong¹; Kawanago, Takamasa³; Kakushima, Kuniyuki³; Iwai, Hiroshi³*¹Nanyang Technological University, School of Electrical and Electronic Engineering, Singapore, Singapore; ²Institute of Material Research and Engineering, Singapore, Singapore; ³Tokyo Institute of Technology, Tokyo, Japan

NSP1-93

Electrical characteristics of ferritin cores investigated by Kelvin-Probe Force microscopy in high vacuum*Yamamoto, Shin-ichi¹; Yamada, Hirofumi²; Kobayashi, Kei²; Uraoka, Yukiharu³; Fuyuki, Takashi³; Yamashita, ichiro⁴*¹Kobe City College of Technology, Kobe, Japan; ²Kyoto University, Kyoto, Japan; ³NAIST, Ikoma, Japan; ⁴Matsushita ATR, Sohraku-gun, Japan

NSP1-94

Transient hole trapping in individual Ge quantum dots grown on Si (001) studied by conductive atomic force microscopy*Yang, Xinju¹; Wu, Rong²; Jiang, Zuimin³*¹Fudan University, Physics, Shanghai, China; ²Fudan University, Shanghai, China; ³Fudan University, Shanghai, China**NS - SPM: STM**

NSP1-95

A scanning tunneling spectroscopy study of electron standing waves confined in a single dimer row of Si(001)*Sagisaka, Keisuke; Fujita, Daisuke**National Institute for Materials Science, Tsukuba, Japan*

NSP1-96

Scanning probe microscopy of defect structures in graphite*Cervenka, Jiri; Flipse, Kees**Eindhoven University of Technology, Eindhoven, Netherlands*

NSP1-97

Observation of local barrier height and electronic structure on cuprate superconductor by scanning tunneling microscopy/spectroscopy (STM/STS)*Sugimoto, Akira¹; Toshikazu, Ekino¹; Eisaki, Hiroshi²*¹Hiroshima University, Graduate School of Integrated Arts and Sciences, Higashi-Hiroshima, Japan; ²AIST, NeRI, Tsukuba, Japan

NSP1-98

Spatially resolved tunneling spectroscopy of in adsorbate on the Si(100)-(2x1) surface*Pavel, Sobotik; Ivan, Ostadal; Martin, Setvin; Pavel, Kocan**Charles University in Prague, Department of Surface and Plasma Physics, Prague, Czech Republic*

NSP1-99

Abstract withdrawn

NSP1-100

STM/STS study of α -Fe single crystal whisker surfaces*Tamura, Hidetoshi; Shishido, Motoyuki; Yamada, Toyokazu; Mizoguchi, Tadashi**Gakushuin University, Faculty of Science, Tokyo, Japan*

NSP1-101

Evolution of carrier profile induced by post-spike furnace annealing at low temperature*Chang, Mao-Nan¹; Chou, Tung-Huan¹; Lu, Ping-Jui²; Chien, Feng-Tso²**¹National Nano Device Laboratories, Nano Metrology, Hsinchu, Taiwan; ²Feng Chia University, Electronic Engineering, Taichung, Taiwan***NS - SPM: Novel Techniques**

NSP1-102

Apertureless near-field optics on commercial AFM: Tip to sample gap control*Milner, Alexander A.¹; Zhang, Kaiyin¹; Prior, Yehiam¹; Karpovski, Michael²**¹Weizmann Institute of Science, Chemical Physics, Rehovot, Israel; ²Tel Aviv University, Faculty of Exact Sciences, Tel Aviv, Israel*

NSP1-103

InAs quantum dot formation on GaAs surfaces investigated with in-situ STM*Kremzow, Raimund¹; Pristovsek, Markus¹; Röhmer, Bert¹; Kneissl, Michael¹; Richter, Wolfgang²**¹Institut für Festkörperphysik, TU-Berlin, Sek. PN 6-1, Hardenbergstr. 36, Berlin, Germany; ²Dipartimento di Fisica, Roma II (Tor Vergata), Via della Ricerca Scientifica 1, Rome, Italy*

NSP1-104

Development of UHV scanning probe microscope with external stress and strain application*Fujita, Daisuke; Kitahara, Masayo; Onishi, Keiko; Sagisaka, Keisuke**National Institute for Materials Science, Advanced Nano Characterization Center, Tsukuba, Japan*

NSP1-105

Scanning probe for thermal detection using the combined dual resonance mode*Kim, Sangjin; Ono, Takahito; Esashi, Masayoshi**The Graduate School of Engineering, Tohoku Univ., Sendai, Japan*

NSP1-106

A novel cell based scanning probe microscope with UHV/gas/liquid processing capabilities and an external scanning-unit*Biarnason, Elias H.¹; Arnalds, Unnar B.¹; Olafsson, Sveinn²**¹Matvice, Dunhaga 3, Reykjavik, Iceland; ²Science Institute University of Iceland, Reykjavik, Iceland*

NSP1-107

3D Imaging and spectroscopy of a self-organized nanocluster on the surface by scanning tunneling microscope with a metal-coated carbon nanotube tip*Murata, Yuuya; Motoyoshi, Kenji; Kimura, Takehiko; Matsumoto, Takashi; Honda, Shin-ichi; Katayama, Mitsuhiro**Osaka university, Graduate School of Engineering, Osaka, Japan*

NSP1-108

First results from a scanning projection field emission microscope*Zajec, Bojan; Nemanic, Vincenc; Zumer, Marko**"Jozef Stefan" Institute, Dept. of Surface Engineering and Optoelectronics, Ljubljana, Slovenia*

NSP1-109

TEM in situ probing of nanostructures*Olin, Håkan; Hummelgård, Magnus**Mid Sweden University, Engineering Physics, Sundsvall, Sverige*

NSP1-110

In situ TEM force measurements*Nafari, Alexandra¹; Danilov, Andrey¹; Karlen, David²; Svensson, Krister³; Olsson, Eva⁴; Enoksson, Peter²; Olin, Håkan⁵**¹Nanofactory Instruments, Gothenburg, Sweden; ²Chalmers University of Technology, Microtechnology and Nanoscience, Gothenburg, Sweden; ³Karlstad University, Department of Physics, Karlstad, Sweden; ⁴Chalmers University of Technology, Applied Physics, Gothenburg, Sweden; ⁵Mid Sweden University, Engineering Physics, Sundsvall, Sweden*

NSP1-111

Scanning thermal microscopy probe with diamond tip*Brown, Elisabetta¹; Hao, Ling¹; Cox, David²; Gallop, John³**¹National Physical Laboratory, Teddington, United Kingdom; ²University of Surrey, Guildford, United Kingdom; ³National Physical Laboratory, Teddington, United Kingdom*

NSP1-112

Voltage drops at monoatomic steps resolved by scanning tunneling potentiometry*Bobisch, Christian; Bannani, Amin; Zubkov, Evgeny; Weyers, Bastian; Moeller, Rolf**University of Duisburg-Essen, Department of Physics, Duisburg, Germany*

NSP1-113

Atomic resolution afm in uhv with a purely electrical qplus sensor*Uder, Bernd; Maier, Markus; Bettac, Andreas; Wittmann, Michael; Feltz, Albrecht**Omicron NanoTechnology GmbH, Taunusstein, Germany*

NSP1-114

A novel Modified Rayleigh model for hysteresis compensation of an XY scanner*Park, Jongkyu; Moon, Wonkyu**Pohang University of Science and Technology, Mechanical Engineering, Pohang, Republic of Korea***NS - Spin Detection, Spin Infection and Spin Transport**

NSP1-115

Progress towards spin-Polarised measurements using a UHV variable temperature STM*Kazakova, Olga; Langham, Conway; Josephs-Franks, Patrick**NPL, Teddington, United Kingdom*

NSP1-116

Ab-initio simulation of magnetic exchange force microscopy of Fe on W(001)*Lazo, Cesar¹; Caciuc, Vasile²; Stefan, Heinze¹; Hoelscher, Hendrik³**¹University of Hamburg, Institute of Applied Physics, Hamburg, Germany; ²University of Muenster, Institute of Physics, Muenster, Germany; ³University of Muenster, Center for NanoTechnology, Muenster, Germany*

NSP1-117

Towards the quantitative spin-polarized STM/STS*Mizuno, Naosumi; Yamada, Toyokazu; Mizoguchi, Tadashi**Gakushuin University, Faculty of Science, Tokyo, Japan*

NSP1-118

Theoretical study on magnetic properties of manganese nanosilicide in silicon*Yabuuchi, Shin¹; Kageshima, Hiroyuki²; Ono, Yukinori²; Nagase, Masao²; Fujiwara, Akira²; Ohta, Eiji³**¹NTT Basic Research Laboratories/Keio University, Atsugi/Yokohama, Japan; ²NTT Basic Research Laboratories, Atsugi, Japan; ³Keio University, Yokohama, Japan*

NSP1-119

Spin transistor and spin Hall effects in p-type CdB_xF_{2-x} quantum well on the n-type CdF₂ surface*Bagraev, Nikolay¹; Klyachkin, Leonid¹; Malyarenko, Anna¹; Guimbitskaya, Olga²; Bovt, Maria²; Ryskin, Alexander³; Shcheulin, Alexander³**¹Ioffe Physico-Technical Institute RAS, St.Petersburg, Russian Federation; ²St.Petersburg Polytechnical University, St.Petersburg, Russian Federation; ³Vavilov State Optical Institute, St.Petersburg, Russian Federation*

NSP1-120

ODMR of impurity centres embedded in silicon microcavities*Bagraev, Nikolay¹; Klyachkin, Leonid¹; Malyarenko, Anna¹; Gehlhoff, Wolfgang²; Mashkov, Vladimir³; Romanov, Vladimir³; Shelykh, Tatiana³**¹Ioffe Physico-Technical Institute RAS, St.Petersburg, Russian Federation; ²Technische Universitaet Berlin, Berlin, Germany; ³St.Petersburg Polytechnical University, St.Petersburg, Russian Federation*

NSP1-121

Spin interference of holes caused by hyperfine interaction with ^{29}Si nuclei in silicon one-dimensional rings*Bagraev, Nikolay¹; Galkin, Nikolay¹; Klyachkin, Leonid¹; Malyarenko, Anna¹; Gehlhoff, Wolfgang²; Shelykh, Ivan³**¹Ioffe Physico-Technical Institute RAS, St.Petersburg, Russian Federation; ²Technische Universitaet Berlin, Berlin, Germany; ³St.Petersburg Polytechnical University, St.Petersburg, Russian Federation*

NSP1-122

Magnetic properties of Mn:ZnO film by pulsed laser deposition*Park, K. S.¹; Park, K. H.¹; Song, Y. Y.¹; Yu, S. C.¹; Yang, D. S.²; Kang, H. J.¹**¹Chungbuk National University, Department of Physics, Cheongju, Republic of Korea; ²Chungbuk National University, Physics Division, School of Science Education, Cheongju, Republic of Korea*

NSP1-123

Kondo temperature variations in a controlled single-atom contact*Neel, Nicolas¹; Kroger, Jorg¹; Limot, Laurent¹; Palotas, Krisztian²; Hofer, Werner A.²; Berndt, Richard¹**¹Christian-Albrechts-Universitaet zu Kiel, Institut fuer Experimentelle und Angewandte Physik, Kiel, Germany; ²University of Liverpool, Surface Science Research Centre, Liverpool, United Kingdom*

NSP1-124

Magnetotransport in ferromagnetic Schottky diodes made of Mn-doped GaAs*Holmberg, Heikki¹; Lebedeva, Natalia¹; Novikov, Sergey¹; Kuivalainen, Pekka**Helsinki University of Technology, Micro and Nanosciences laboratory, Espoo, Finland*

NSP1-125

Magnetic GaAs resonant tunnelling diodes with an Mn-doped emitter*Holmberg, Heikki¹; Lebedeva, Natalia¹; Novikov, Sergey¹; Kuivalainen, Pekka¹; Mattila, Marko¹; Du, Guanxiang²; Han, Xiufeng²**¹Helsinki University of Technology, Micro and Nanosciences laboratory, Espoo, Finland; ²Institute of Physics, Chinese Academy of Sciences, State Key Laboratory of Magnetism, Beijing, China*

NSP1-126

Miniature classical Mott polarimeter*Petrov, Vladimir**Saint Petersburg State Polytechnical University, Experimental Physics, Saint Petersburg, Russian Federation*

NSP1-127

Hydrogen redistribution in the Si-SiO₂ system due to the spin injection and its influence on the interface properties*Kropman, Daniel¹; Mellikov, Enn¹; Heinmaa, Ivo²; Kärner, Tiit³; Laas, Tõnu⁴**¹Tallinn University of Technology, Materials Science, Tallinn, Estonia; ²Institute of Chemical Physics and Biophysics, Tallinn, Estonia; ³Tartu University, Physics, Tartu, Estonia; ⁴Tallinn University, Tallinn, Estonia*

NSP1-128

Spin polarized quasi-particle induced resistance in FSF triple layers with perpendicular magnetic anisotropy*Singh, Ajay; Suergers, Christoph; v. Loehneysen, Hilbert**Universitat Karlsruhe, Physikalisches Institut, Karlsruhe, Germany*

NSP1-129

Spin-dependent transport of holes in silicon quantum wells confined by superconductor barriers*Bagraev, Nikolay¹; Klyachkin, Leonid¹; Malyarenko, Anna¹; Gehlhoff, Wolfgang²; Kudryavtsev, Andrei³; Romanov, Vladimir³**¹Ioffe Physico-Technical Institute RAS, St.Petersburg, Russian Federation; ²Technische Universitaet Berlin, Berlin, Germany; ³St.Petersburg Polytechnical University, St.Petersburg, Russian Federation*

NSP1-130

Shell structure, Zeeman shift, and spin-orbit interaction in a few-electron quantum dot*Larsson, Marcus; Wallin, Daniel; Brusheim, Patrik; Xu, H. Q.**Lund University, Division of Solid State Physics, Lund, Sweden*

NSP1-131

Magnetic multilayers and spin-transfer in magnetic nanostructures*Hossein, Sadeghi; Ali, Zolanvar**University of Arak, Physics, Arak, Islamic Republic of Iran*

NS - Single Atom/Molecule Manipulation and SNOM

NSP1-132

Bistable molecule control by single atom manipulation

Mamatkulov, Mikhail¹; Sonnet, Philippe¹; Stauffer, Louise²; Martin, Marta²; Lastapis, Mathieu²; Riedel, Damien²; Dujardin, Gérald²
¹LPSE, Mulhouse, France; ²LPM, Orsay, France

NSP1-133

Trapping and manipulation of nanoparticles by using jointly Dielectrophoresis and AC electroosmosis

Loucaides, Neophytos¹; Ramos, Antonio²; Georghiou, George¹

¹University of Cyprus, Department of Electrical and Computer Engineering, Nicosia, Cyprus; ²University of Seville, Department of Electronics and Electromagnetism, Seville, Spain

NSP1-134

Trima molecule chemisorption on the Si(001) surface: a theoretical study

Mamatkulov, Mikhail¹; Sonnet, Philippe¹; Stauffer, Louise¹; Minot, Christian²

¹LPSE, Mulhouse, France; ²LCT, Paris, France

NSP1-135

Self-orientation phenomena of porphyrin-based molecules absorbed along the terrace edge line on the single crystalline substrate.

Tanaka, Shukichi¹; Kamikado, Toshiya¹; Susuki, Hitoshi²

¹NICT, Kobe Advanced-ICT Research Centre (KARC), Kobe, Japan; ²Hiroshima University, Hiroshima, Japan

NSP1-136

Constrained molecular manipulation by scanning tunneling microscopy

Fawcett, Richard¹; Beton, Peter¹; Martsinovich, Natalia²; Kantorovich, Lev³

¹University of Nottingham, School of Physics and Astronomy, Nottingham, United Kingdom; ²King's College London, Department of Physics, London, United Kingdom;

³King's College London, Department of Physics, London, United Kingdom

NSP1-137

Molecular dynamics simulation of compressed green fluorescent protein molecule by AFM tip

Tagami, Katsunori; Tsukada, Masaru

Waseda University, Tokyo, Japan

NSP1-138

On the energetics of individual dna molecules

Escher, Conrad; Fink, Hans-Werner

University of Zuerich, Physics Institute, Zuerich, Switzerland

NSP1-139

Single molecule tip-enhanced Raman spectroscopy

Zhang, Weihua; Zenobi, Renato

ETH Zurich, Zurich, Switzerland

NSP1-140

Chemical imaging with nanoscale lateral resolution via atmospheric pressure near field laser ablation mass spectrometry

Gamez, Gerardo; Schmitz, Thomas; Zenobi, Renato

ETH Zürich, Organic Chemistry, Zürich, Switzerland

NSP1-141

Light transmittance through a thin conducting film with various correlation between interface profiles

Dmitruk, Nicholas; Korovin, Alexandr

Institute for Physics of Semiconductors NASU, Polaritonic Optoelectronics, Kiev, Ukraine

NSP1-142

Imaging and chemical analysis of biological nanostructures using a setup for tip-enhanced Raman spectroscopy (TERS)

Schmid, Thomas; Zenobi, Renato

ETH Zurich, Department of Chemistry and Applied Biosciences, Zurich, Switzerland

NSP1-143

Multifunctional ultra fine probe using tungsten suboxide nanorod --Probe for electrical measurements and Raman scattering enhancement--*Shingaya, Yoshitaka¹; Aono, Masakazu¹; Nakayama, Tomonobu²**¹NIMS, JST(ICORP), Tsukuba, Japan; ²NIMS, JST(ICORP), Univ.Tsukuba, Tsukuba, Japan*

NSP1-144

Development of the universal AFM scanning Head for NSOM and raman spectroscopy*Kim, Eunpa¹; Schreiber, Joachim²; Nguyen, Quang²; Lee, Jung-Rok¹; Cho, Sang-Joon¹; Kim, Yong-Seok¹; Yoo, Young-kook¹; Park, Sang-il¹**¹Park Systems, Suwon, Republic of Korea; ²HORIBA Jobin Yvon S.A.S., Lille, France*

NSP1-145

Tip enhanced raman scattering of strained silicon with single and multiple probes*Lewis, Aaron; Dekhter, Rimma; Taha, Hesham**Nanonics Imaging Ltd., Jerusalem, Israel*

NSP1-146

Near-field optical spectroscopy for local luminescence measurements*Klapetek, Petr; Valtr, Miroslav**Czech Metrology Institute, Dept. of Nanometrology, Brno, Czech Republic*

NSP1-146B

Near field imaging and single molecule probing of metallic nano-antennas*Lereu, Aude¹; Passian, Alf²; Ghenuche, Petru¹; Sanchez-Mosteiro, Gabriel¹; Quidant, Romain¹; van Hulst, Niek¹**¹ICFO-The institut of Photonic sciences, Castelldefels (Barcelona), Spain; ²Oak Ridge National Laboratory, Oak Ridge, United States***SS - Adsorbate Dynamics and Scattering**

SSP1-147

Effects of external strain on the orde-disorder phase transition of Si(001) and on the dissociation dynamics of O₂/Si(001)*Masanori, Yata**National Institute for Materials Science, Quatum Dot Center, Tsukuba, Japan*

SSP1-148

Energy dependence of diffraction and rotationally inelastic scattering of D₂ from NiAl(110)*Laurent, Guillaume¹; Barredo, Daniel¹; Nieto, Pablo¹; Fariás, Daniel¹; Riviere, Paula²; Martín, Fernando²**¹Universidad Autónoma de Madrid, Departamento de Física de la Materia Condensada, Madrid, Spain; ²Universidad Autónoma de Madrid, Departamento de Química, Madrid, Spain*

SSP1-149

Abstract withdrawn

SSP1-150

Theoretical study of hydrogen atom behaviors on the Pd(111) surface and in its subsurface via quantum dynamical manners*Ozawa, Nobuki; Alboreda, Nelson; Nakanishi, Hiroshi; Kasai, Hideaki**Osaka University, Precision Science & Technology and Applied Physic, Osaka, Japan*

SSP1-151

Phase diagram, depinning and sliding friction in the phase field crystal model*Achim, Cristian Vasile¹; Karttunen, Mikko²; Elder, Ken R.³; Granato, Enzo⁴; Ala-Nissila, Tapio¹; Ying, See Chen⁵**¹Helsinki University of Technology, Laboratory of Physics, Espoo, Finland; ²The University of Western Ontario, Departament Of Applied Mathematics, London, Canada;**³Oakland University, Department of Physics, Rochester, United States; ⁴Instituto Nacional de Pesquisas Espaciais, Laboratório Associado de Sensores e Materiais, São José dos Campos, Brazil; ⁵Brown University, Department of Physics, Providence, United States*

SSP1-152

Some problems in hydrogen desorption spectra from Si(100) surfaces*Unoko, Chie; Arifur R., Khan; Inanaga, Shoji; Namiki, Akira**Kyushu Institute of Technology, Electrical Engineering, Kitakyushu, Japan*

SSP1-153

D abstraction by H on Ru(0001) surfaces

Yamauchi, Takashi; Misumi, Tetsuya; Namiki, Akira
 Kyushu Institute of Technology, Electrical, Electronic and Computer, Fukuoka, Japan

SSP1-154

Initial oxidation of Cu(100)-c(10×2)Ag and Cu(100)-c(2×2)N studied by low-energy electron diffraction and Auger electron spectroscopy

Ahonen, Marko; Hirsimäki, Mika; Valden, Mika
 Institute of Physics, Surface Science Laboratory, Tampere University of Technology, Finland

SS - Chemical Reactions

SSP1-155

The role of metal-support interaction in catalytic activity: methanol adsorption and reaction on Pd/Fe3O4 and Pd/Al2O3 model catalysts

Fischer, J.-H.¹; Brandt, B.¹; Schalow, T.¹; Schauermann, S.¹; Libuda, J.²; Freund, H.-J.¹
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SSP1-156

The role of defects in the surface chemistry of strong lewis acids

Wander, Adrian¹; Bailey, Christine¹; Harrison, Nicholas²; Mukhopadhyay, Sanghamitra²
¹CCLRC Daresbury Laboratory, Computational Science and Engineering, Daresbury, Warrington, Cheshire, United Kingdom; ²Imperial College, Chemistry, London, United Kingdom

SSP1-157

Dissociation dynamics of water on silicon (001)

Schofield, Steven¹; Warschkow, Oliver²; Marks, Nige²; Radny, Marian¹; Smith, Phillip¹; McKenzie, David²
¹University of Newcastle, School of Mathematical and Physical Sciences, Callaghan, Australia; ²University of Sydney, School of Physics, Sydney, Australia

SSP1-158

The adsorption of methanol on 2D Al overlayers grown on Si(111)

Zhang, Zhen; Fu, Qiang; Bao, Xinhe
 The Chinese Academy of Sciences, Dalian Institute of Chemical Physics, Dalian, China

SSP1-159

STM of initial stage of sulfur adsorption on Au(111) at 77K

Yuu, Miyawaki¹; Shu, Kurokawa²; Akira, Saka²
¹Kyoto University, Department of Materials Science and Engineering, Kyoto, Japan; ²Kyoto University, International Innovation Center, Kyoto, Japan

SSP1-160

Origin of intrinsic kinetics hindrance of formation of Mg-hydride: A first principle thermodynamics study

Jiang, Tao; Sun, Li-Xian; Li, Wei-Xue
 Dalian Institute of Chemical Physics, Dalian, China

SSP1-161

A density functional theory study of CO oxidation with oxygen molecule on activated Ag(111) surface

Su, Hai-Yan; Bao, Xin-He; Li, Wei-Xue
 Dalian Institute of Chemical Physics, Dalian, China

SSP1-162

Density functional theory study of CH_x (x=1-3) adsorption on clean and CO pre-covered Rh(111) surface

Yang, Ming-Mei; Bao, Xin-He; Li, Wei-Xue
 Dalian Institute of Chemical Physics, Dalian, China

SSP1-163

Abstract withdrawn

SSP1-164

Initial adsorption of nitric oxide on Si(111)7x7 surface at room temperature: correlation function analysis*Miyauchi, Kunio¹; Hattori, Ken²; Daimon, Hiroshi²**¹Nara Institute of Science and Technology, Graduate School of Materials Science, Ikoma, Japan; ²Nara Institute of Science and Technology, JST-CREST, Ikoma, Saitama, Japan*

SSP1-165

RAIRS and DFT investigation of methanol on Cu(110) and on the Cu – O stripe phase*Singnurkar, Priyanka¹; Demirci, Erkan¹; Winkler, Adolf¹; Bako, Imre²; Schennach, Robert¹**¹Graz University of Technology, Institute of Solid State Physics, Graz, Austria; ²Hungarian Academy of Science, Chemical Research Center, Budapest, Hungary*

SSP1-166

Abstract withdrawn

SSP1-167

DFT Study of O₂ and CO Adsorption and Reaction on RuO₂ (110) Surface*Wang, Chia-Ching¹; Chen, Hsin-Yen²; Hsueh, Hung-Chung²; Jiang, Jyh-Chang¹**¹National Taiwan University of Science & Technology, Chemical Engineering, Taipei, Taiwan; ²Tamkang University, Physics, Taipei, Taiwan*

SSP1-168

Theoretical Investigation of CO oxidation on IrO₂ (110) surface*Chou, Hung, Lung.; Chen, Ting-Chieh.; Jiang, Jyh-Chiang**National Taiwan University of Science and Technology, Department of Chemical Engineering, Taipei, Taiwan*

SSP1-169

Peculiar reaction of supersonic CH₄ molecules on Pt(111) with controlled defects*Okada, Ryuta; Hori, Tsuyoshi; Harimoto, Daiki; Yokoyama, Yuta; Sasaki, Masahiro**Institute of Applied Physics, University of Tsukuba, Tsukuba, Japan***SS - Diffusion and Growth**

SSP1-170

Preformed metallic clusters deposited on functionalized surface : from self organization to controlled growth of organized nanostructures.*Baraton, Laurent¹; Benrezzak, Sakina¹; Kebaili, Nouar²; Cahuzac, Philippe¹; Masson, Albert¹; Brechignac, Catherine¹**¹CNRS, Laboratoire Aimé COTTON, Orsay, France; ²Paris XI University, Laboratoire Aimé COTTON, Orsay, France*

SSP1-171

Terrace and step-down diffusions of Au atoms on clean and Au-covered Ir(111) surfaces*Ogura, Shohei; Fukutani, Katsuyuki**University of Tokyo, Institute of Industrial Science, Tokyo, Japan*

SSP1-172

From growth to erosion in ion beam assisted metal-on-metal deposition: The reaction kinetic approach*Jahma, Mika¹; Koponen, Ismo²; Ala-Nissila, Tapio¹**¹Helsinki University of Technology, Laboratory of Physics, Espoo, Finland; ²University of Helsinki, Department of Physical Sciences, Helsinki, Finland*

SSP1-173

Computational methods for mesoscopic modelling of size selection in nanoisland growth*Pirkkalainen, Kari¹; Nevalainen, Kirs²; Koponen, Ismo¹**¹University of Helsinki, Department of Physical Sciences, Helsinki, Finland; ²Helsinki University of Technology, Laboratory of Physics, Helsinki, Finland*

SSP1-174

Kinetics of In growth on Si(100) 2x1 surface at low coverage - STM study*Ostadal, Ivan; Javorsky, Jakub; Kocan, Pavel; Sobotik, Pavel; Setvin, Martin**Charles University in Prague, Department of Surface and Plasma Science, Prague, Czech Republic*

SSP1-175

Growth of Ag-In nanostructures on the Si(100)-(2x1) surface*Pudl, Jan; Sobotik, Pavel; Ostadal, Ivan**Charles University, Department of Surface and Plasma Science, Prague, Czech Republic*

SSP1-176

Abstract withdrawn

SSP1-177

Analysys of catalytic growth of carbon nanotubes by ACCVD method*Vesely, Marian¹; Marton, Marian¹; Michalka, Miroslav²; Izak, Tibor²*¹Slovak University of Technology, Microelectronics, Bratislava, Slovakia; ²International Laser Center, Bratislava, Slovakia

SSP1-178

Abstract withdrawn

SSP1-179

Plasma nitrocarburizing of AISI 5115 steel in CO₂ containing atmosphere*Heydarzadeh Sohi, Mahmoud¹; Esfahani, Alireza¹; Rassizadehghani, Jafar¹; Mahboubi, Farzad²; Mahboubi, Farzad²*¹University of Tehran, school of Metallurgy & Materials Eng., Tehran, Islamic Republic of Iran; ²Amirkabir University of technology, Department of Mining, Metallurgical & Petroleum En, Tehran, Islamic Republic of Iran

SSP1-180

First stages of the growth of Sm on epitaxial Co/W(110) films studied by LEEM and LEED*Prieto, Jose Emilio¹; de la Figuera, Juan²; Puerta, Juan Manuel²; Cerda, Jorge Iribas³; McCarty, Kevin F.⁴*¹Universidad Autonoma de Madrid, Centro de Microanálisis de Materiales, Madrid, Spain; ²Universidad Autonoma de Madrid, CMAM and Dpto. de Física de la Materia Condensada, Madrid, Spain; ³Consejo Superior de Investigaciones Científicas, Instituto de Ciencia de Materiales de Madrid, Madrid, Spain; ⁴Sandia National Laboratories, Livermore, CA, United States**SS - Electronic Structure**

SSP1-181

Valence-band photoemission and conductivity study of NaCl films on single crystal C60 surface*Gasparov, Vitaly**Institute of Solid State Physics RAS, Spectroscopy of Defect Structures Laboratory, Chernogolovka, Russian Federation*

SSP1-182

Minority-spin surface resonance state of ultra-thin Co film on Cu(001)*Miyamoto, Koji¹; Kimura, Akio¹; Iori, Kazuyuki¹; Sakamoto, Kazuaki¹; Narita, Hisashi²; Qiao, Shan²; Hasegawa, Kazuhiro²; Shimada, Kenya²; Namatame, Hirofumi²; Taniguchi, Masaki¹*¹Hiroshima University, Graduate School of Science, Higashi-Hiroshima, Japan; ²Hiroshima University, Hiroshima Synchrotron Radiation Center, Higashi-Hiroshima, Japan

SSP1-183

k- and spin-dependent hybridization effects in Ce monolayer*Dedkov, Yury¹; Vyalikh, Denis¹; Fonin, Mikhail²; Kucherenko, Yuri²; Molodtsov, Serguei¹; Laubschat, Clemens¹*¹TU Dresden, Dresden, Germany; ²University of Konstanz, Konstanz, Germany; ³Institute for Metal Physics, Kiev, Ukraine

SSP1-184

Atomic and electronic structure of Mn₅Ge₃(111) surface :an STM study*Kim, H.; Jeong, G. E.; Chung, K. H.; Kahng, S.-J.**Korea University, Seoul, Republic of Korea*

SSP1-185

Structure of Mg 2p core-level in Zn,Mg laves phase and icosahedral ZnMgRE quasicrystals*Karpus, Vytautas¹; Taulavicius, Julius¹; Šuchodolskis, Arturas¹; Karlsson, Ulf²; Le Lay, Guy²; Assmus, Wolf⁴; Brühne, Stefan⁴*¹Semiconductor Physics Institute, Vilnius, Lithuania; ²KTH, Stockholm, Sweden; ³CRMC2-CNRS, Marseille, France; ⁴J. W. Goethe Universität, Frankfurt am Main, Germany

SSP1-186

Atomic structure and adsorption energy of iodine on Pd(111)-I ($\sqrt{3}\times\sqrt{3}$) and Pd(110)-I c(2x2) from thermal desorption spectroscopy, density functional calculations and high resolution core level spectroscopy*Bruhn, Benjamin¹; Göthelid, Mats¹; Thatchenko, Alexander²; Galvan, Marcelo²*¹MAP, KTH, Stockholm, Sverige; ²Departamento de Química, División de Ciencias Básicas, Iztapalpa, Mexico, Mexico

SSP1-187

Ab initio calculation of the electronic and phonon states on the HfC(001)-(1x1) surface*Tutuncu, Huseyin¹; Bagci, Sadik¹; Duman, S.¹; Srivastava, Gyaneshwar²*¹Sakarya University, Fizik Bolumu, Adapazari, Turkey; ²University of Exeter, School of Physics, Exeter, United Kingdom

SSP1-188

Atomistic observations of the hydrogen-free carbon films drastically improving field emission characteristics*Sasaki, Masahiro¹; Kotaro, Adachi¹; Nagashima, Shinya¹; Ogata, Satoshi¹; Nagao, Masayoshi²*¹University of Tsukuba, Institute of Applied Physics, Tsukuba, Japan; ²AIST, Tsukuba, Japan

SSP1-189

First-principles calculations of electronic transport in In nanowires adsorbed on Si(111)*Wippermann, Stefan; Schmidt, Wolf Gero**Universitaet Paderborn, Department Physik, Theoretische Physik, Paderborn, Germany*

SSP1-190

Direct observation of interface states of alkanethiols on Pt(111) by metastable atom electron spectroscopy*Masuda, Shigeru¹; Koide, Yuichiro¹; Aoki, Masaru¹; Morikawa, Yoshitada²*¹The University of Tokyo, Department of Basic Science, Tokyo, Japan; ²Osaka University, Institute of Scientific and Industrial Research, Ibaraki, Japan

SSP1-191

Surface properties of Bi/Cu(001): could electronic properties explain surface morphology?*Achilli, Simona¹; Trioni, Mario Italo¹; Gargiani, Pierluigi²; Betti, Maria Grazia²*¹University of Milan Bicocca, Material Science, Milan, Italy; ²University of Rome 'La Sapienza', Physics, Rome, Italy

SSP1-192

Thermally induced surface properties and the electric field effect in Cr doped SrZrO₃-films*Park, W.G.; Cho, S.Y.; Oh, S.J.**Seoul National University, CSCMR, School of Physics and Astronomy, Seoul, Republic of Korea*

SSP1-193

Electronic structure of shandite Co₃Sn₂S₂*Dedkov, Yuri¹; Holder, Matthias¹; Molodtsov, Serguei¹; Rosner, Helge²*¹TU Dresden, Dresden, Germany; ²MPI CPfS Dresden, Dresden, Germany

SSP1-194

Interaction of metal and bathocuproine studied by ultraviolet photoemission spectroscopy*Toyoshima, Susumu¹; Sakurai, Takeaki¹; Taima, Tetsuya²; Saito, Kazuhiro²; Kato, Hiroo³; Akimoto, Katsuhiko¹*¹University of Tsukuba, Institute of Applied Physics, Tsukuba, Japan; ²National Institute of AIST, Research Center for Photovoltaics, Tsukuba, Japan; ³Hirosaki University, Department of Advanced Physics, Hirosaki, Japan

SSP1-195

Quantum well states as Fabry-Pérot modes in Mg/W(110)*Chulkov, Eugene; Leonardo, Aritz; Schiller, Frederik; Ortega, Jose Enrique**Donostia International Physics Center (DIPC), Donostia, Spain*

SSP1-196

Electronic structure and stability of α -aluminium fluoride surfaces in an environment of HF and H₂O*Mukhopadhyay, Sanghamitra¹; Bailey, Christine²; Wander, Adrian²; Harrison, Nicholas¹*¹Imperial College London, Department of Chemistry, London, United Kingdom; ²CCLRC Daresbury Laboratory, Daresbury, Computational Science & Engineering Department, Warrington, Cheshire, United Kingdom

SSP1-197

Empty electronic states in low-energy absorbed current spectroscopy of single crystal surface*Panchenko, Oleg E.; Panchenko, Larisa K.**Donetsk Institute of Physics & Engineering, Donetsk, Ukraine*

SSP1-198

Simulation of band structure for CrN and Cr by using a 3D array of symmetric attractive potential*Restrepo-Parra, Elisabeth¹; Riaño-Rojas, Juan Carlos²; Amaya, Sebastian¹; Bedoya, Claudia Milena¹**¹Universidad Nacional de Colombia Sede Manizales, Física y Química, Manizales, Colombia; ²Universidad Nacional de Colombia Sede Manizales, Matemáticas y estadística, Manizales, Colombia*

SSP1-199

Models for ferromagnetism: insights from ab-initio calculations*Mahadevan, Priya**S.N Bose National Centre for Basic Sciences, Department of Material Sciences, Kolkata, India*

SSP1-200

Abstract withdrawn

SSP1-201

*See SSP2-272D***TF/SE Joint: Photovoltaic, Electrochromic and Optoelectronic**

TFSEP1-202

Transparent and conductive ZnO:Al prepared by RF diode sputtering*Shtereva, Krasimira¹; Flickyngerova, Sona²; Tvarozek, Vladimir²; Sutta, Pavel³; Netrvalova, Maria³; Novotny, Ivan²**¹University of Rousse, Electronics, Rousse, Bulgaria; ²Slovak University of Technology in Bratislava, Microelectronics, Bratislava, Slovakia; ³West Bohemian University, New technologies-Research Centre, Plzen, Czech Republic*

TFSEP1-203

Annealing effects of in-doped ZnO films grown by spray pyrolysis method*Oyama, Satoshi¹; Kato, Masahiro¹; Yoshino, Kenji¹; Yoneta, Minoru²**¹University of Miyazaki, Department of Electrical & Electronic Engineering, Miyazaki, Japan; ²Okayama University of Science, Department of Applied Science, Okayama, Japan*

TFSEP1-204

Electrical properties and microstructures of GZO thin films with buffer layers of SiO₂ and TiO₂ by sputtering*Pan, Han-Chang; Cho, Wen-Hao; Lin, Hsiu-fen; Su, Chien-Ying; Hsiao, Chien-Nan**Instrument Technology Research Center, Hsinchu, Taiwan*

TFSEP1-205

Physical properties of zirconium oxynitride films deposited by reactive magnetron sputtering*Laurikaitis, Marius¹; Burinskas, Saulius¹; Dudonis, Julius¹; Milėius, Darius²**¹Kaunas University of Technology, Kaunas, Lithuania; ²Lithuania Energy Institute, Kaunas, Lithuania*

TFSEP1-206

Optical properties of amorphous tungsten oxide films: Effect of stoichiometry*Niklasson, Gunnar A.; Norling, AnnaKarin; Possnert, Göran; Berggren, Lars**Uppsala University, Dept. of Engineering Sciences, Uppsala, Sweden*

TFSEP1-207

Effect of pressure change on physical properties of RF sputtered WO₃ thin films*Riech, Ines¹; Acosta, Milenis¹; Peña, Juan Luis²; Alonso, Juan Carlos³**¹Universidad Autonoma de Yucatan, Merida, Mexico; ²CINVESTAV-IPN, Merida, Mexico; ³Universidad Nacional Autonoma de Mexico, Mexico, Mexico*

TFSEP1-208

structural and optical properties studies of sputtered a-SiCN thin films*Tomasella, Eric; Bourbia, Ouahab; Rebib, Farida; Dubois, Marc; Cellier, Joel; Jacquet, Michel**Lab des Matériaux Inorganiques, UMR CNRS 6002, Aubière, France*

TF/SE Joint: Solar Cell and Mirror Applications

TFSEP1-209

Structure and electrophysical properties of CdTe and ZnTe thin films

Kosyak, Volodymyr¹; Opanasyuk, Anatoliy¹; Kolesnik, Maksym¹; Danilchenko, Sergiy²

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TFSEP1-210

Photoluminescence studies of polycrystalline CdS/CdTe thin film solar cells

Peña, J.L.¹; Riech, I.²; Mendoza-Alvarez, J.G.³; Rodriguez-Fragoso, P.³; Castro-Rodriguez, R.¹

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TFSEP1-211

Characterization of sputtered CuInZnSe₂ thin films from binary selenides powder compacted targets

Wibowo, Rachmat Adhi; Kim, Kyoo Ho

Yeungnam University, Materials Science and Engineering, Gyeongsan, Republic of Korea

TFSEP1-212

Preparation and characterization of CuInS₂/ITO thin film

Yoshino, Kenji¹; Akaki, Youji²; Shirahata, Yasuhiro²; Nomoto, Keita³; Yoshitake, Tsuyoshi³

¹University of Miyazaki, Department of Electrical and Electric Engineering, Miyazaki, Japan; ²Miyakonojo National College of Technology, Department of Electrical Engineering, Miyakonojo, Japan; ³Kyushu University, Department of Applied Science for Electronics and, Fukuoka, Japan

TFSEP1-213

Effect of H₂S annealing for CuInS₂ thin films grown by a vacuum evaporation method

Akaki, Yoji¹; Nomoto, Keita²; Nakamura, Shigeyuki³; Yoshino, Kenji²

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TFSEP1-214

Optical characterization of Ag/Ga composition ratio in AgGaSe₂ thin film

Yoshino, Kenji¹; Matsuo, Hitoshi²; Kinoshita, Aya¹; Seto, Satoru³

¹University of Miyazaki, Department of Electrical and Electric Engineering, Miyazaki, Japan; ²Kyushu University, Institute of Advanced material Study, Fukuoka, Japan; ³Ishikawa National College of Technology, Department of Electrical Engineering, Kanazawa, Japan

TFSEP1-215

Cluster incorporation control for a-Si:H film deposition

Nakamura, William Makoto; Miyahara, Hiroommi; Koga, Kazunori; Shiratani, Masaharu

Kyushu University, Department of Electronics, Fukuoka, Japan

TFSEP1-216

A model of DC reactive magnetron sputtering for graded solar thermal absorbers

Kubart, Tomas¹; Zhao, Shuxi²; Nyberg, Tomas¹; Berg, Sören¹; Wäckelgard, Ewa²

¹The Angstrom Laboratory, Uppsala University, Solid State Electronics, Uppsala, Sweden; ²The Angstrom Laboratory, Uppsala University, Solid State Physics, Uppsala, Sweden

TFSEP1-217

Temperature dependent characterization of TiO₂/In(OH)_xS_y/PbS/PEDOT:PSS eta solar cell

Musembi, Robinson Juma¹; Rusu, Marin²; Mwabora, Julius¹; Aduda, Bernard¹; Fostiropoulos, K²; Lux-Steiner, M.Ch²

¹University of Nairobi, Physics, Nairobi, Kenya; ²Hahn Meitner Institute, SE2, Berlin, Germany

TFSEP1-218

Influence of titania thin film morphology on the photovoltaic action of hybrid titania-P3HT solar cell

Her, Hyun-Jung; Kim, Jung-Min; Choi, Y. J.; Kang, C. J.; Kim, Yong-Sang

Myongji Univ., Nano Science and Engineering, Yong-In, Republic of Korea

TFSEP1-219

Proton conductive tantalum oxide thin film deposited by reactive DC magnetron sputtering for all-solid-state switchable mirror

Tajima, Kazuki; Yamada, Yasusei; Bao, Shanhu; Okada, Masahisa; Yoshimura, Kazuki

National Institute of Advanced Industrial Science, Nagoya, Japan

TFSEP1-220

Resistance to the hydrogen plasma of the ZnO:Al thin films, deposited by spray pyrolysis on SnO_x substrates

Ristova, MIMOZA¹; Tanusevski, Atanas¹; Dimovski-Popevski, Riste¹; Gligorova, Angela¹; Gracin, Davor²; Jurai, Krunoslav²; Krajinovi, Sanja³; Milun, Milorad³
¹Faculty of Natural Sciences and Mathematics, Skopje, Macedonia, FYrom; ²Ruđer Bošković Institute, Zagreb, Croatia; ³Institute of Physics, Zagreb, Croatia

TF/SE Joint: Organic and Molecular Material Thin Films

TFSEP1-221

Charge transport in C₆₀/CuPc donor-acceptor blends

Opitz, Andreas; Bronner, Markus; Brütting, Wolfgang
 University of Augsburg, Institute of Physics, Augsburg, Germany

TFSEP1-222

Improved performance of OTFTs with a embedded structure

Ryu, Hyejeon; Kim, Daehyun; Ji, Hyunjin; Lee, Jae Woo; Kim, Gyu Tae
 Korea University, Electrical Engineering, Seoul, Republic of Korea

TFSEP1-223

Electronic transport properties of some newly synthesized high resistivity organic salts in thin films

Leontie, Liviu¹; Druta, Ioan²; Daniloaia, Teofil²; Rusu, Gheorghe¹; Apetroaei, Neculai¹
¹A.I. Cuza University, Faculty of Physics, Iasi, Romania; ²A.I. Cuza University, Faculty of Chemistry, Iasi, Romania

TFSEP1-224

Organic thin film transistors with PEDOT:PSS S/D electrodes by inkjet printing method

Kim, Jae-Kyung; Kim, Jung-Min; Her, Hyun-Jung; Kang, C. J.; Kim, Yong-Sang
 Myongji Univ., Nano Science & Engineering, Yongin, Republic of Korea

TFSEP1-225

Electronic structure and surface conformation of T₁₂BuCuPc and T₁₂BuH₂Pc thin films on Ag/Si(111), Si(111) and SiO₂/Si(111) substrates studied by NEXAFS and XPS using synchrotron radiation and STM/STS

Krasnikov, Sergey¹; Hanson, Claire²; Beggan, John Patrick¹; Brougham, Dermot³; Cafolla, Attilio¹
¹Dublin City University, School of Physical Sciences, Dublin, Ireland; ²Dublin City University, National Centre for Sensor Research, Dublin, Ireland; ³Dublin City University, School of Chemical Sciences, Dublin, Ireland

TFSEP1-226

Structure and properties of nanocomposite polymer coatings

Rogachev, Alexander¹; Rahachou, Aliaksandr²
¹Belarusian State University of Transport, Gomel, Belarus; ²Francisk Skorina Gomel State University, Gomel, Belarus

TF/SE: Magnetic Thin Films and Applications

TFSEP1-227

Growth and characterization of epitaxial Zn_{1-x}Cr_xO films grown by RS-MBE method on sapphire

Shintani, Motoyuki¹; Yoneta, Minoru¹; Satou, Yuichi¹; Yoshino, Kenji²; Ohishi, Masakazu¹; Saito, Hiroshi¹
¹Okayama University of Science, Okayama, Japan; ²Miyazaki University, Miyazaki, Japan

TFSEP1-228

Growth and investigation of p-n structures based on Fe₃₀₄ thin films

Sliuziene, Kristina¹; LISAUSKAS, Vaclovas¹; Butkute, Renata¹; Vengalis, Bonifacas¹; Tamulevicius, Sigita²; Andriulevicius, Mindaugas²
¹Semiconductor Physics Institute, Vilnius, Lithuania; ²Institute of Physical Electronics of Kaunas Unive, Kaunas, Lithuania

TFSEP1-229

Electronic transport in ferromagnetic carbon-doped Mn₃Si₃ films

Suergers, Christoph; Gopalakrishnan, B.; v. Loehneysen, Hilbert
 Universität Karlsruhe, Physikalisches Institut, Karlsruhe, Germany

TFSEP1-230

Magnetoresistance of oxygen-concentration modulated Co-Ti-O layered structures

Shi, Ji; Ohtsuki, Tomio; Nakamura, Yoshio
 Tokyo Institute of Technology, Department of Metallurgy and Ceramics Science, Tokyo, Japan

TFSEP1-231

In situ monitoring of intrinsic strain evolution during growth of sputtered amorphous magnetostrictive Fe-B-N thin films*Fernandez, Ivan; Briones, Fernando
CSIC, IMM, Madrid, Spain*

TFSEP1-232

Influence of mechanical strain on magnetic characteristics of spin valves*Ac, Vladimir¹; Anwarzai, Branislav¹; Luby, Stefan²; Majkova, Eva²**¹A. Dubcek University of Trencin, Trencin, Slovakia; ²Institute of Physics, SAS, Multilayers and Nanostructures, Bratislava, Slovakia*

TFSEP1-233

Electrodeposition of FeNi alloy nanotubes on porous silicon*Gabouze, Nour-Eddine¹; Ouir, Souad²; Ouadah, Yahia¹; Sam, Sabrina³; Fortas, Ghania¹; Beldjilali, Karima¹**¹UDTS, Thin films, Algiers, Algeria; ²USDB, PHYSICS, Blida, Algeria; ³USDB, Thin films, Algiers, Algeria*

TFSEP1-234

Preparation and characterization of MgO-Co TMR structures*Anghel, Alexandru; Mustata, Ion; Iacob, Cristian; Badulescu, Marius; Lungu, P. Cristian**NILPRP, PTJ, Bucharest, Romania*

TFSEP1-235

All alkoxide based processing of manganate and cobaltate perovskite films and powders; Effectes on processing parameters*Westin, Gunnar; Pohl, Annika; Ottosson, Mikael**Uppsala University, Materials Chemistry, Uppsala, Sweden*

TFSEP1-236

Ultra-fast deposition and ferromagnetism of thin iron films on silicon*Gouralnik, Alexander S.; Galkin, Nikolay G.**Inst for Automation and Control Processes, FEB RAS, Optics and Electrophysics of Nanostructures, Vladivostok, Russian Federation*

TFSEP1-237

Magnetic anisotropy in nanopatterned ultrathin films*Canepa, Maurizio¹; Bisio, Francesco²; Moroni, Riccardo²; Mattera, Lorenzo¹**¹Physics Department, University of Genova, Genova, Italy; ²CNISM, Unità di Genova, Genova, Italy*

TFSEP1-238

Correlations between magnetic properties and bond formation in Rh-MgO(001)*Castleton, Christopher¹; Nokbin, Somkia²; Hermansson, Kersti¹**¹Uppsala University, Materials Chemistry, Uppsala, Sweden; ²Kasetsart University, Lab. for Computational and Applied Chemistry, Bangkok, Thailand*

TFSEP1-239

Electrical and magnetic properties of p-n junctions formed between manganites and n-si*Bonifacas, Vengalis; Antanas K, Oginskis; Devenson, Jelena; Anisimovas, Fiodoras; Butkute, Renata**Semiconductor Physics Institute, Vilnius, Lithuania***ADV - Advanced Light Sources**

ADVP1-240

100 nm Resolution fresnel zone plates made by focused ion beam lithography*Alessandro, Surpi¹; Leifer, Klaus¹; Lagomarsino, Stefano²**¹Uppsala Universitet, Department of Engineering Science, Uppsala, Sweden;**²Istituto di Fotonica e Nanotecnologie C.N.R, Roma, Italy*

