

NS30 - Self Assembly and Self Organization III

Room: Viktoriahallen

NS31 - Nanowires II

Room: K1

Time	Title	Abs No	Time	Title	Abs No
08:30	Title to be announced <i>Gimzewski, James</i> University of California, Los Angeles, United States	NS30-IS1	08:30	Structural and quantum conductance properties of metal nanowires <i>Ugarte, Daniel</i> UNICAMP & LNLS, Dept. Fisica Aplicada, Campinas, Brazil	NS31-IS1
09:00	Using a perylene-based network for hierarchical self-assembly <i>Stöhr, Meike¹; Wahl, Markus¹; Spillmann, Hannes¹; Jung, Thomas A.²; Gade, Lutz H.³; Güntherodt, Hans-Joachim¹</i> ¹ University of Basel, Basel, Switzerland; ² Paul-Scherrer-Institute, Villigen, Switzerland; ³ University of Heidelberg, Heidelberg, Germany	NS30-Or1	09:00	Vertical surround-gated silicon nanowire impact ionization field-effect transistors <i>Bjork, Mikael¹; Schmid, Heinz; Hayden, Oliver; Knoch, Joachim; Riel, Heike; Riess, Walter</i> IBM Research GmbH, Ruschlikon, Switzerland	NS31-Or1
09:15	The nanoscale spider-web: A molecular self-assembly due to substrate-molecule interactions <i>Gallego, José M¹; Écija, David²; Otero, Roberto²; Sánchez, Luis³; Martín, Nazario²; Miranda, Rodolfo²</i> ¹ Instituto de Ciencia de Materiales de Madrid, CSIC, Madrid, Spain; ² Universidad Autónoma de Madrid, Física de la Materia Condensada, Madrid, Spain; ³ Universidad Complutense de Madrid, Química Orgánica, Madrid, Spain	NS30-Or2	09:15	Physics based modeling of short-channel nanowire MOSFETs <i>Børli, Håkon; Kolberg, Sigbjørn; Fjeldly, Tor A.</i> NTNU, Kjeller, Norway	NS31-Or2
09:30	Creating a nano-scale porous network of porphyrin molecules <i>Écija, David¹; Urban, Christian¹; Trelka, Marta¹; de Mendoza, Paula²; Gallego, José M²; Otero, Roberto²; Echavarren, Antonio M²; Miranda, Rodolfo¹</i> ¹ Universidad Autónoma de Madrid, Física de la Materia Condensada, Madrid, Spain; ² Institut Català d'Investigació Química, Tarragona, Spain; ³ Instituto de Ciencia de Materiales de Madrid, CSIC, Madrid, Spain	NS30-Or3	09:30	Detection of charge events in nanowire quantum dots by quantum point contact <i>Wallin, Daniel¹; Fuhrer, Andreas¹; Fröberg, Linus E.¹; Hoefling, S.²; Forchel, A.²; Samuelson, Lars¹; Xu, H. Q.¹</i> ¹ Lund University, Solid State Physics, Lund, Sverige; ² Universität Würzburg, Technische Physik, Würzburg, Germany	NS31-Or3
09:45	Stability and templating studies of bi-molecular structures on metallic and semiconductor surfaces <i>Perdigão, Luis M.A.¹; Saywell, Alex¹; Smith, Nicholas¹; Staniec, Paul A.¹; Fontes, Giselle N.²; Goretzki, Gudrun³; Champness, Neil R.³; Beton, Peter H.¹</i> ¹ University of Nottingham, School of Physics and Astronomy, Nottingham, United Kingdom; ² Universidade Federal de Minas Gerais, Departamento de Física, Belo Horizonte, Brazil; ³ University of Nottingham, School of Chemistry, Nottingham, United Kingdom	NS30-Or4	09:45	Scanning tunneling spectroscopy inside III-V semiconductor nanowires <i>Cavar, Elizabeta¹; Mikkelsen, Anders¹; Lundgren, Edvin¹; Sköld, Niklas²; Samuelson, Lars²</i> ¹ University of Lund, Synchrotron Radiation Research, Lund, Sweden; ² University of Lund, Solid State Physics, Lund, Sweden	NS31-Or4
10:00	Cooperative rearrangements leading to long range order in monolayers of supramolecular polymers <i>Vonau, Francois¹; Aubel, Dominique¹; Bouteiller, Laurent²; Isare, Benjamin²; Reiter, Guenter³; Habar, Mustapha¹; Simon, Laurent¹</i> ¹ LPSE-CNRS, Mulhouse, France; ² LCP-CNRS, Jussieu, France; ³ ICSI-CNRS, Mulhouse, France	NS30-Or5	10:00	Electrical transport and optical properties of zinc oxide nanowires <i>Lu, Jia Grace¹; Chang, Pai-chun²; Fan, Zhiyong³; Ronning, Carsten⁴; Stichtenoth, Daniel⁴</i> ¹ University of Southern California, Physics & Electrical Engineering, Los Angeles, United States; ² University of Southern California, Electrical Engineering, Los Angeles, United States; ³ UC Irvine, Materials Science, Irvine, United States; ⁴ Goettingen University, Physics, Goettingen, Germany	NS31-Or5

ASS10 - Characterization of Nanomaterials

Room: K2

VST09 - Vacuum Pumps, Hardware and Gettering Related Phenomena and Appl.

Room: K11

Time	Title	Abs No	Time	Title	Abs No
08:30	Transfer of a single carbon fullerene at nano gap <i>Oshima, Yoshifumi¹; Kurui, Yoshihiko²; Yoshida, Makoto²; Takayanagi, Kunio²</i> ¹ Tokyo Institute of Technology, Materials Science and Engineering, Yokohama, Japan; ² Tokyo Institute of Technology, Condensed Matter Physics, Tokyo, Japan	ASS10-Or1	08:30	Application of titanium materials to vacuum chambers and components <i>Kurisu, Hiroki¹; Ishizawa, Katsunobu²; Yamamoto, Setsuo¹; Hesaka, Masaki³; Saito, Yoshio⁴</i> ¹ Yamaguchi University, Graduate School of Science and Engineering, Ube, Japan; ² CT division San-ai Plant Industries, Ltd, Kawasaki, Japan; ³ Shinko Industries Co., Ltd, Ube, Japan; ⁴ KEK-High Energy Accelerator Organization, Tsukuba, Japan	VST09-IS1
08:45	Antimony nanowires as pH probes <i>Lu, Jia Grace¹; Chang, Pai-chun²; Ye, Jian-Shan³; Sheu, Fwu-Shan³</i> ¹ University of Southern California, Physics & Electrical Engineering, Los Angeles, United States; ² University of Southern California, Electrical Engineering, Los Angeles, United States; ³ National University of Singapore, Biological Sciences, Singapore, Singapore	ASS10-Or2			
09:00	Recognition tunneling: A new approach for identifying single molecules <i>Lindsay, Stuart; Lin, Lisha; Zhang, Peiming; He, Jin</i> Arizona State University, Tempe, United States	ASS10-Or3	09:00	Condensation of vapour in dry primary vacuum pump <i>SAXOD, Laurent¹; SIBUET, René²</i> ¹ INOPRO / ALCATEL Vacuum Technology, Anec, France; ² ALCATEL Vacuum Technology, Anec, France	VST09-Or1
09:15	Electrical conductivity of epitaxial and non-epitaxial Ge nanodot arrays on an oxidized Si surface <i>Nakayama, Yasuo¹; Yamazaki, Shiro²; Yoshimoto, Shinya²; Hobara, Re²; Okino, Hiroyuki²; Hirahara, Toru²; Matsuda, Iwao²; Hasegawa, Shuji²; Ichikawa, Masakazu³</i> ¹ CREST-JST, Saitama, Japan; ² The University of Tokyo, Tokyo, Japan; ³ CREST-JST and The University of Tokyo, Tokyo, Japan	ASS10-Or4	09:15	Dry compressing Screw Vacuum Pumps for critical applications <i>Dreifert, Thomas; Buhlmann, Klaus</i> Oerlikon Leybold Vacuum GmbH, Research and Development, Cologne, Germany	VST09-Or2
09:30	Self assemblies of quinacridone derivatives molecular structures by the adjustment of lateral chains <i>Shi, Dongxia; Ji, Wei; Gao, Hongjun</i> Institute of Physics, Chinese Academy of Sciences, Beijing, China	ASS10-Or5	09:30	Chemical pumping in large vacuum systems <i>Conte, Andrea; Manini, Paolo</i> SAES Getters S.p.A., Lainate (Milano), Italy	VST09-IS2
09:45	Kinetics and energetics of interface formation for hybrid silicon-organic electronic devices <i>Cucinotta, Clotilde S.¹; Calzolari, Arrigo¹; Ruini, Alice¹; Molinari, Elisa¹; Pignedoli, Carlo²; Catellani, Alessandra³; Sousa, Regina L.⁴; Caldas, Marília J.⁴</i> ¹ CNR-INFM S3 and Univ. of Modena and Reggio Emilia, Department of Physics, Modena, Italy; ² IBM Research, Zurich Research Laboratory, Ruschlikon, Switzerland; ³ CNR-IMEM and CNR-INFM S3, Parma, Italy; ⁴ University of Sao Paulo, Institute of Physics, Sao Paulo, Brazil	ASS10-Or6			
10:00	Mechanical and structural analysis of photocatalytic PVD-grown TiO₂ thin films on polymer substrates for sensor and actuator applications <i>Tavares, C.J.¹; Marques, S.M.¹; Lanceros-Mendez, S.²; Costa, C.M.²; Sencadas, V.²; Alves, E.³; Franco, N.³; Barradas, N.P.³; Fernandes, A.J.¹</i> ¹ Universidade do Minho, Departamento de Física (GRF), Guimarães, Portugal; ² Universidade do Minho, Departamento de Física, Guimarães, Portugal; ³ Instituto Tecnológico e Nuclear, Departamento de Física, Sacavém, Portugal; ⁴ Universidade de Aveiro, Departamento de Física, Aveiro, Portugal	ASS10-Or7	10:00	Commissioning of the Ti-Zr-V coated vacuum chambers of the Large Hadron Collider. <i>Bregliozzi, Giuseppe; Chigiato, Paolo; Jimenez, Jose Miguel; Wevers, Ivo</i> CERN, Geneva, Switzerland	VST09-Or3

TF/SE12: Compositionally Modulated and Nanostructured Thin Films

Room: K12

PST/ F09 - Fusion III

Room: K13

Time	Title	Abs No	Time	Title	Abs No
08:30	In-situ WAXS & SAXS investigation of precipitation hardening in arc-evaporated Ti(1-x)Al(x)N coatings using high-energy synchrotron radiation <i>Termer, Mark¹; Mushta, Svetlana¹; Hedstrom, Peter¹; Sjolen, Jacob²; Almer, Jon³; Ilavsky, Jan³; Oden, Magnus⁴</i> ¹ Lulea University of Technology, Engineering Materials, Lulea, Sweden; ² Seco Tools AB, Fagersta, Sweden; ³ Argonne National Laboratory, Advanced Photon Source, Argonne, IL, United States; ⁴ Linköping University, Nanostructured Materials, Linköping, Sweden	TFSE12-Or1	08:30	Measuring & controlling plasma-surface interactions of low-Z elements in a Tokamak fusion device <i>Whyte, Dennis</i> MIT Plasma Science & Fusion Center, Cambridge, United States	PSTF09-IS1
08:45	Thermal stability of Cr/Sc multilayers <i>Eriksson, Fredrik; Ghafoor, Naureen; Birch, Jens; Hultman, Lars</i> Thin Film Physics, Linköping University, IFM, Linköping, Sverige	TFSE12-Or2			
09:00	TiC/SiC nanocomposites and multilayers <i>Eklund, Per¹; Wilhelmsson, Ola²; Emmerlich, Jens¹; Jansson, Ulf²; Högberg, Hans¹; Hultman, Lars¹</i> ¹ Linköping University, Thin Film Physics Division, IFM, Linköping, Sweden; ² Uppsala University, Dept. of Materials Chemistry, Uppsala, Sweden	TFSE12-Or3	09:00	Plasma operation with high-Z environment <i>Neu, Rudolf; Asdex Upgrade Team,</i> Max Planck Institut fuer Plasmaphysik, Garching, Germany	PSTF09-IS2
09:15	Concept of designing sputtered low-friction nanocomposite coatings through doping <i>Lewin, Erik¹; Wilhelmsson, Ola¹; Jansson, Ulf¹; Mattias, Lindquist²; Wiklund, Urban²; Råsander, Mikael³; Sanyal, Biplab³; Eriksson, Olle³</i> ¹ Uppsala university, Department of Materials Chemistry, Uppsala, Sweden; ² Uppsala university, Department of engineering sciences, Uppsala, Sweden; ³ Uppsala university, Department of physics, Uppsala, Sweden	TFSE12-Or4			
09:30	Compositionally-modulated polymeric films with embedded metal nanoparticles prepared by vapor phase co-and tandem deposition <i>Zaporozhchenko, Vladimir; Greve, Henry; Takele, Haile; Hanisch, Christian; Chakravadhanula, V.S.K; Strunskus, Thomas; Faupel, Franz</i> University of Kiel, Kiel, Germany	TFSE12-Or5	09:30	Near-surface characterization of plasma-facing materials in a DT fusion reactor <i>Tanabe, Tetsuo</i> Kyushu Univeisty, Interdisciplinary Graduate School of Engineering S, Fukuoka, Japan	PSTF09-IS3
09:45	Single-material inhomogeneous and discrete layer optical filters prepared by the control of plasma-surface interactions <i>Vernhes, Richard; Larouche, Stephane; Klemberg-Sapieha, Jolanta; Martinu, Ludvik</i> Ecole Polytechnique, Engineering Physics, Montreal, Canada	TFSE12-Or6			
			10:00	Influence of metal-doping and annealing on the structure of amorphous carbon films <i>Adelhelm, Christoph¹; Balden, Martin¹; Rinke, Monika²; Stüber, Michael²</i> ¹ Max-Planck-Institut für Plasmaphysik, Materials Research, 85748 Garching, Germany; ² Forschungszentrum Karlsruhe, Institute for Materials Research I, 76344 Eggenstein-Leopoldshafen, Germany	PSTF09-Or1

EDU03 - Education in Nano and Vacuum Based Science III

Room: K14

SS22 - Adsorbate Dynamics and Scattering

Room: K16/17

Time	Title	Abs. No	Time	Title	Abs No
08:30	Finding the right Education in Nanotechnology – the IoN Nanotech Master's Recognition Scheme <i>Singh, Kshitij¹; Friedrichs, Steff²</i> ¹ Institute of Nanotechnology, Stirling, United Kingdom; ² Nanotechnology Industries Association, Cambridge, United Kingdom	EDU03-IS01	08:30	Evidence for non-separable interactions: Microscopic diffusion measurements of CO/Pt(111). <i>Alexandrowicz, G¹; Kole, PR²; Lee, EYM³; Jardine, AP¹; Hedgeland, H¹; Ferrando, R⁴; Allison, W¹; Ellis, J¹</i> ¹ University of Cambridge, Cavendish Laboratory, Cambridge, United Kingdom; ² University of Twente, Solid State Physics Group, Enschede, Netherlands; ³ Rutgers University, Department of Chemistry & Chemical Biology, Piscataway, United States; ⁴ Università di Genova, Dipartimento di Fisica, Genova, Italy	SS22-Or1
			08:45	Temperature and quantum effects on hydrogen delocalization on Ni(001) surface <i>Leino, Markku; Kylänpää, Ilkka; Rantala, Tapio T.</i> Tampere University of Technology, Institute of Physics, Tampere, Finland	SS22-Or2
09:00	Project based nano-education – first years students building scanning tunnelling microscopes <i>Olin, Håkan; Hummelgård, Magnus</i> Mid Sweden University, Engineering Physics, Sundsvall, Sverige	EDU03-Or01	09:00	Sticking probability of H atom on Cu(111) and Pt(111) surfaces <i>Lee, Seung Jun¹; Kim, Tae Seung¹; Jo, Sam K.²; Lee, Jihwa¹</i> ¹ Seoul National University, Seoul, Republic of Korea; ² Kyung Won University, Sungnam, Republic of Korea	SS22-Or3
09:15	Education in nanotechnology through microscopy made easy <i>Gullo, Maurizio</i> Nanosurf AG, Liestal, Switzerland	EDU03-Or02	09:15	Using diffraction to study the hydrogen dissociation dynamics at surfaces: the H₂/Pt(111) system <i>Nieto, Pablo; Barredo, Daniel; Laurent, Guillaume; Farías, Daniel</i> Universidad Autónoma de Madrid, Departamento de Física de la Materia Condensada, Madrid, Spain	SS22-Or4
09:30	Usage of Edu-Scope in nano-education <i>Lindahl, Joakim; Montelius, Lars</i> nQuip AB, IDEON Science Park, Lund, Sweden	EDU03-Or03	09:30	Dynamics of H₂(D₂) from solid surfaces - kinetic energy dependence of the desorption angle distribution <i>Diño, Wilson Agerico</i> Osaka University, Physics, Osaka, Japan	SS22-Or5
09:45	Nanoscience experience for secondary school students : A case study using atomic force microscopy of dental decay <i>Kim, Chaeho¹; Lee, Jayeong²; Jeon, D.¹</i> ¹ Seoul National University, Physics Education and Nano Systems Institute, Seoul, Republic of Korea; ² Seoul National University, Physics Education, Seoul, Republic of Korea	EDU03-Or04	09:45	Hidden surface states on Ni(111) pristine and hydrogen passivated surfaces <i>Lobo-Checa, Jorge¹; Okuda, Taich²; Hengsberger, Matthias³; Patthey, Luc⁴; Greber, Thomas⁵; Blaha, Peter⁶; Osterwalder, Juerg⁷</i> ¹ University of Basel, Institut für Physik, Basel, Switzerland; ² University of Tokyo, Institute for Solid State Physics, Kashiwa, Japan; ³ University of Zurich, Physik-Institut, Zurich, Switzerland; ⁴ Paul Scherrer Institut, Swiss Light Source, Villigen-PSI, Switzerland; ⁵ Technical University of Vienna, Vienna, Austria	SS22-Or6
10:00	Nanoscopy Education Programs at Advanced Technologies Center <i>Yaminsky, Igor; Yaminsky, Dmitry; Filonov, Alexander</i> Advanced Technologies Center, Moscow, Russian Federation	EDU03-Or05			

ASS11 - Catalytic Materials

Room: K21

TF/SE13: Fundamentals in Thin Film Process (Plasma Process) Combined with Reactive Sputtering

Room: K22

Time	Title	Abs No	Time	Title	Abs No
08:30	Catalytic materials and catalysis <i>Solymsi, Frigyes</i> Reaction Kinetics Research Group Univ. of Szeged, Szeged, Hungary	ASS11-IS1	08:30	Time-of-flight spectroscopy of laser ablated atoms and ions <i>Buchsbaum, Andreas; Rauchbauer, Georg; Schiechl, Hannes; Schmid, Michael; Varga, Peter</i> Institut fuer Allgemeine Physik, TU Wien, Vienna, Austria	TFSE13-Or1
			08:45	Effects of CH4 and C2H2 as precursor on the RF plasma deposition of hard a-C:H films <i>Peter, Siegfried¹; Graupner, Karola²; Richter, Frank¹</i> ¹ Chemnitz University of Technology, Institute of Physics, D-09107 Chemnitz, Germany; ² Queen's University Belfast, Department of Physics and Astronomy, Belfast BT7 1NN, United Kingdom	TFSE13-Or2
09:00	Investigating the Lewis acidity of aluminium fluoride surfaces <i>Bailey, Christine¹; Wander, Adrian¹; Mukhopadhyay, Sanghamitra²; Harrison, Nicholas²</i> ¹ CCLRC Daresbury Laboratory & Imperial College, Computational Science and Engineering, Warrington, Cheshire, United Kingdom; ² Imperial College, Chemistry, London, United Kingdom	ASS11-Or1	09:00	Characterization of InN growth by ion beam assisted deposition <i>Lopes, Karina C¹; Matsuoaka, Masao¹; Chubaci, Jose Fernando D¹; Kiyohara, Pedro K¹; Freitas, Jaime A²; Nascente, Pedro A P³</i> ¹ Universidade de Sao Paulo, Instituto de Fisica, Sao Paulo, SP, Brazil; ² Naval Research Laboratory, Washington, DC, United States; ³ Universidade Federal de Sao Carlos, Departamento de Engenharia de Materiais, Sao Carlos, SP, Brazil	TFSE13-Or3
09:15	Differences in reactivity induced by the presence of steps and their geometry <i>Resta, Andrea; Westerström, Rasmus; Lundgren, Edvin; Andersen, Jesper N</i> Lund University, Synchrotron Radiation Research, Lund, Sweden	ASS11-Or2	09:15	Emission characteristics of TiB compound targets during sputtering; role of angular distribution and gas scattering <i>Neidhardt, Jörg¹; Mitterer, Christian¹; Mraz, Stanislav²; Schneider, Jochen M.²; Strub, Eric³; Bohne, Wolfgang³</i> ¹ University of Leoben, C. Doppler Laboratory for Advanced Hard Coatings, Leoben, Austria; ² RWTH Aachen University, Materials Chemistry, Aachen, Germany; ³ Hahn-Meitner Institute, Berlin, Germany	TFSE13-Or4
09:30	Doped and undoped nanostructured CeO2 from pulsed neutron scattering and theoretical calculations <i>Hermansson, Kersti¹; Baudin, Micael¹; Herschend, Björn¹; Palmqvist, Anders E.C.²</i> ¹ Materials Chemistry, Uppsala University, Box 538, Uppsala, Sweden; ² Applied Surface Chemistry and KCK, Chalmers University of Technology, Göteborg, Sweden	ASS11-Or3	09:30	Structural, mechanical and electrical properties of decorative Ti(C,O,N) coatings prepared by reactive sputtering <i>Chappé, Jean-Marie¹; Vaz, Filipe¹; Fernandes, Ana Cristina¹; Marques, Luis S.A.²; Parreira, Nuno M.G.³; Cavaleiro, Albano³; Alves, Eduardo⁴</i> ¹ Universidade do Minho, Physics Department, Guimaraes, Portugal; ² Universidade do Minho, Physics Department, Braga, Portugal; ³ Universidade de Coimbra, ICMES, Coimbra, Portugal; ⁴ ITN, Departamento de Física, Sacavem, Portugal	TFSE13-Or5
09:45	Non-aqueous synthesis of nanocrystalline TiO2 and Pt, Au, Ag-TiO2 photocatalysts <i>Zhu, Jiefang; Zach, Michael; Kasemo, Bengt</i> Chalmers University of Technology, Applied Physics, Goteborg, Sweden	ASS11-Or4	09:45	Effects of sputtered atom weight and ambient gas pressure on the target mode transition during reactive sputtering of metal oxides <i>Nakano, Takeo; Iimura, Yasuo; Baba, Shigeru</i> Seikei University, Department of Materials and Life Science, Tokyo, Japan	TFSE13-Or6
10:00	Atomic force and high resolution electron microscopy as tools for nano-characterization: on hematite nanoparticles synthesized from solution <i>Rodriguez, Raul¹; Demaille, Dominique¹; Lacaze, Emmanuelle¹; Jupille, Jacques¹; Chaneac, Corinne²; Jolivet, Jean-Pierre²</i> ¹ Institut des NanoSciences de Paris (INSP), Paris, France; ² Chimie de la Matière Condensée, Université Pierre, Paris, France	ASS11-Or5			

NS32 - Nanowires III

Room: K23

NS33 - Single Atom and Single Molecule Manipulation

Room: K24

Time	Title	Abs No	Time	Title	Abs No
08:30	Crosssectional analysis of semiconductor nanowire arrays <i>Didriksone, Kristine¹; Birjukovs, Pavels¹; Xu, Ju²; Holmes, Justin D.²; Petkov, Nikolay²; Svirksts, Janis³; Erts, Donats¹</i> ¹ University of Latvia, Institute of Chemical Physics, Riga, Latvia; ² National University of Ireland, Department of Chemistry, Cork, Ireland; ³ University of Latvia, Department of Chemistry, Riga, Latvia	NS32-Or1	08:30	Single molecule manipulation by molecular vibration <i>Ohara, Michiaki¹; Kim, Yousoo²; Kawai, Maki¹</i> ¹ University of Tokyo, Department of Advanced Materials Science, Kashiwa, Japan; ² Riken, Surface Chemistry Laboratory, Saitama, Japan	NS33-Or1
08:45	Qualitative differences in gold nano particle interaction on III-V substrates for nanowire growth <i>Hilner, Emelie¹; Mikkelsen, Anders¹; Eriksson, Jessica¹; Andersen, Jesper¹; Lundgren, Edvin¹; Zakharov, Alexe²; Yi, Hongsuk²; Kratzer, Peter³</i> ¹ Institute of Physics, University of Lund, Department of synchrotron radiation research, Lund, Sweden; ² University of Lund, MAX-lab, Lund, Sweden; ³ Fritz-Haber-Institut der MPG, Berlin, Germany	NS32-Or2	08:45	An atomic seesaw switch for one-dimensional electrons on Ge (001) <i>Tomatsu, Kota¹; Nakatsuji, Kan¹; Imori, Takushi¹; Takagi, Yasumasa¹; Kusuhashi, Hideaki²; Ishii, Akira²; Komori, Fumio³</i> ¹ University of Tokyo, Institute for Solid State Physics, Kashiwa, Chiba, Japan; ² Tottori University, Department of Appl. Math. and Phys., Tottori, Japan; ³ University of Tokyo, Institute for Solid State Physics, Kashiwa, Chiba, Japan	NS33-Or2
09:00	Epitaxial vapor-liquid-solid growth of silicon nanowires on Si(111) using silane <i>Schmid, Heinz; Björk, Mikael T.; Hayden, Oliver; Knoch, Joachim; Riel, Heike; Riess, Walter</i> IBM Research GmbH, Zurich Research Laboratory, Rueschlikon, Switzerland	NS32-Or3	09:00	Contacting single atoms and organic molecules on ultrathin insulating films <i>Paavilainen, Sami¹; Olsson, Fredrik²; Repp, Jascha³; Meyer, Gerhard³; Korventausta, Antti¹; Persson, Mats⁴</i> ¹ Tampere University of Technology, Tampere, Finland; ² Chalmers University of Technology, Göteborg, Sweden; ³ IBM Zürich Research Laboratories, Rüschlikon, Switzerland; ⁴ University of Liverpool, Liverpool, United Kingdom	NS33-Or3
09:15	Growth of a well ordered array of Ge nanowires with single-digit nm width <i>Romanyuk, Konstantin; Cherepanov, Vasily; Myslivecek, Josef; Voigtländer, Bert</i> Research Center Jülich, Institute of Bio- and Nanosystems, Jülich, Germany	NS32-Or4	09:15	Chemical bond manipulation of single molecule for ultra-high density data storage <i>Nakaya, Masato¹; Nakayama, Tomonobu¹; Kuwahara, Yuji²; Aono, Masakazu¹</i> ¹ National Institute for Materials Science, Tsukuba, Japan; ² Osaka University, Osaka, Japan	NS33-Or4
09:30	Horizontal Si nanowire arrays as building blocks for nanoelectromechanical systems <i>San Paulo, Alvaro¹; Arellano, Noel²; Plaza, Jose A.¹; He, Rongru²; Carraro, Carlo²; Maboudian, Roya²; Howe, Roger T.³; Bokor, Jeffrey²; Yang,, Peidong²</i> ¹ Instituto de Microelectronica de Barcelona -CSIC, Bellaterra, Spain; ² UC Berkeley, Berkeley, CA, United States; ³ U. of Stanford, Stanford, CA, United States	NS32-Or5	09:30	Doping of monoatomic Cu chains with single Co atoms <i>Lagoute, Jérôme; Nacci, Christophe; Fölsch, Stefan</i> Paul Drude Institute for Solid-State Electronics, Berlin, Germany	NS33-Or5
09:45	Sample-to-sample fluctuations in doped silicon nanowires: A first principles study <i>Markussen, Troels¹; Rurali, Riccardo²; Jauho, Antti-Pekka¹; Brandbyge, Mads¹</i> ¹ Technical University of Denmark, MIC - Department of Micro- and Nanotechnology, Kgs. Lyngby, Denmark; ² Universitat Autònoma de Barcelona, Departament d'Enginyeria Electrònica, Bellaterra, Spain	NS32-Or6	09:45	The vacuum, surface science and the nano-scale <i>DeKieviet, Maarten</i> Heidelberg University, Physics Department, Heidelberg, Germany	NS33-Or6
10:00	Theoretical prediction of 1-D molecular wires on the Si(001) surface <i>Cho, Jun-Hyung</i> Hanyang University, Physics, Seoul, Republic of Korea	NS32-Or7	10:00	Coherent coupling of surface states bound at closely placed indium adatoms on the InAs(111)A surface <i>Kanisawa, Kiyoshi; Perraud, Simon; Fujisawa, Toshiyasa</i> NTT Basic Research Laboratories, Atsugi, Japan	NS33-Or7

SS23 - Diffusion and Growth

Room: A2

SS24 - Oxide Surface III

Room: A3

Time	Title	Abs No	Time	Title	Abs No
08:30	Dynamics of nanostructures on surfaces revealed by high-resolution, fast-scanning STM <i>Besenbacher, Flemming</i> University of Aarhus, iNANO Center, Aarhus, Denmark	SS23-IS1	08:30	Ultrathin oxides on surfaces <i>Michael, Schmid</i> TU Wien, Inst. f. Allgemeine Physik, Vienna, Austria	SS24-IS1
09:00	Dynamic observation of ultra thin film formation with LEEM and selected area LEED <i>Koshikawa, Takanori¹; Yasue, Tsuneo¹; Shimizu, Hiroshi¹; Nakaguchi, Akihiko¹; Bauer, Ernst²</i> ¹ Osaka Electro-Communication University, Fundamental Electronics Research Institute, Osaka, Japan; ² Arizona State University, Physics and Astronomy, Tempe, United States	SS23-Or3	09:00	Iron oxides on Pt(111) and Pd(111) <i>Knudsen, Jan¹; Merte, Lindsay¹; Vang, Ronnie¹; Mavrikakis, Manos²; Flemming, Besenbacher¹</i> ¹ University of Aarhus, iNANO and Department of Physics and Astronomy, Aarhus C, Denmark; ² University of Wisconsin-Madison, Department of Chemical and Biological Engineering, Wisconsin, United States	SS24-Or1
09:15	Diffusion of Fe atoms on noble metal passivated Si surfaces <i>Paredis, Kristof; Vanormelingen, Koen; Vantomme, André</i> K.U.Leuven, Instituut voor Kern- en Stralingsfysica, Leuven, Belgium	SS23-Or2	09:15	Layer-resolved electronic structure of transition-metal oxide films: A scanning tunneling spectroscopy and density functional theory study <i>Widra, Wolf¹; Grosser, Stephan¹; Hagendorf, Christian¹; Daene, Markus¹; Hergert, Wolfram¹; Ernst, Artur²; Lüders, M³; Szotek, Z²; Temmerman, W.M.³</i> ¹ Martin-Luther-University Halle-Wittenberg, Halle, Germany; ² MPI for Microstructure Physics, Halle, Germany; ³ Daresbury Laboratory, Warrington, United Kingdom	SS24-Or2
09:30	Real space direct visualization of the layer-dependent roughening transition in nanometer-thick Pb films <i>Calleja, F.¹; Passeggi Jr, M.C.G.²; Hinarejos, J.J.¹; Vazquez de Parga, A.L.¹; Miranda, R.¹</i> ¹ Universidad Autonoma de Madrid, Fisica de la Materia Condensada, Madrid, Spain; ² INTEC, Laboratorio de Superficies e Interfaces, Santa Fe, Argentina	SS23-Or3	09:30	Oxidation inhibition by an ultra-thin surface oxide on Rh(111) <i>Gustafson, Johan¹; Lundgren, Edvin²; Resta, Andrea²; Westerstrom, Rasmus²; Mittendorfer, Florian³; Kresse, Georg³; Schmid, Michael⁴; Varga, Peter⁵; Torrelles, Xavier⁶; Andersen, Jesper²</i> ¹ University of St. Andrews, School of Chemistry, St. Andrews, United Kingdom; ² Lund University, Dept. of Synchrotron Radiation Research, Lund, Sweden; ³ Universität Wien, Institut für Materialphysik and Center for Computa, Wien, Austria; ⁴ Technische Universität Wien, Institut für Allgemeine Physik, Wien, Austria; ⁵ Institut de Ciencia de Materials de Barcelona, Barcelona, Spain	SS24-Or3
09:45	Anomalous scaling driven by surface diffusion: super-roughening and instabilities in far-from-equilibrium growth models <i>Ben Hadj Hamouda, Ajmi¹; Pimpinelli, Alberto¹; Nita, Florin²</i> ¹ Université Blaise Pascal, LASMEA UMR 6602 –CNRS, Clermont-Fd, France; ² Institut Dipartimento di Fisica, INFN an IMEM/CNR, Genova, Genova, Italy	SS23-Or4	09:45	Oxidation of the Ce/Rh(110) overlayer system <i>Juel, Mari; Martinsen, Stian; Yu, Xiaofeng; Tollefsen, Henrik; Raaen, Steinar</i> Norwegian University of Science and Technology, Department of Physics, Trondheim, Norge	SS24-Or4
10:00	The importance of anisotropic corner crossing barriers in nanowire growth <i>McCarthy, David; Brown, Simon</i> University of Canterbury, Physics and Astronomy, Christchurch, New Zealand	SS23-Or5	10:00	Beyond surface oxide: role of oxygen incorporation on Rh(110) <i>Africh, Cristina¹; Blasetti, Cecilia¹; Esch, Friedrich²; Comelli, Giovanni¹</i> ¹ University of Trieste, Department of Physics, Trieste, Italy; ² Laboratorio TASC INFN-CNR, Trieste, Italy	SS24-Or5

NS34 - NEMS

Room: A4

EMP11 - High k Dielectrics

Room: A5

Time	Title	Abs No	Time	Title	Abs No
08:30	Nanomechanics in LifeScience <i>Hegner, Martin</i> <i>University of Basel, Basel, Basel, Switzerland</i>	NS34-IS1	08:30	Structural and interfacial properties of crystalline Gd2O3 thin films grown on Ge(001) substrates by molecular beam epitaxy <i>Molle, Alessandro¹; Bhuiyan, Md. Nurul Kabir¹; Tallarida, Grazia¹; Wiemer, Claudia¹; Perego, Michele¹; Pavia, Giuseppe²; Fanciulli, Marco¹</i> ¹ CNR-INFM, MDM National Lab, Agrate Brianza (Milano), Italy; ² STMicroelectronics, Agrate Brianza (Milano), Italy	EMP11-Or1
			08:45	Lattice matched SrO/BaO mixtures on Si(100), an alternative gate oxide <i>Müller-Sajak, Dirk; Pfür, Herbert</i> <i>Leibniz-Universität Hannover, Institut für Festkörperphysik, Abt. Oberflächen, Hannover, Germany</i>	EMP11-Or2
09:00	Mass measurements based on nanomechanical devices: differential measurements <i>Arcamone, Julien; Rius, Gemma; Llobet, Jordi; Borrise, Xavier; Pérez-Murano, Francesc</i> <i>CNM-IMB (CSIC), Bellaterra (Barcelona), Spain</i>	NS34-Or1	09:00	First principles study of grain boundaries in MgO and HfO2: Defects and electronic properties <i>McKenna, Keith; Sushko, Peter; Shluger, Alex</i> <i>University College London, Physics and Astronomy, London, United Kingdom</i>	EMP11-Or3
09:15	The nanoelectromechanical device of laterally deflectable cantilevers array <i>Luo, Gang¹; Hessman, Dan¹; Ghatnekar-Nilsson, Sara¹; Maximov, Ivan¹; Kewel, Adrian²; Jan, Krüger²; Graczyk, Mariusz²; Adolph, David²; Zhu, Tao⁴; Liu, Zhongfan⁴; Xu, H. Q.¹; Montelius, Lars¹</i> ¹ Lund University, Solid state physics, physics department, Lund, Sweden; ² BioSensia Ltd., Cork, Island; ³ Lund University, Solid state physics, physics department, Lu, Sweden; ⁴ Peking University, College of Chemistry & Molecular Engineering, Beijing, China	NS34-Or2	09:15	Surface passivation of Ge (100) by O and Ba termination layers <i>Cattoni, Andrea; Bertacco, Riccardo; Riva, Mauro; Cantoni, Matteo; Ciccacci, Franco; Von Känel, Hans; Norga, Gerd</i> <i>Politecnico di Milano, Dipartimento di Fisica, Como, Italy</i>	EMP11-Or4
09:30	Nanoscale ultrasonics in liquid environment <i>Cuberes, M. Teresa</i> <i>University of Castilla-La Mancha, Almadén, Spain</i>	NS34-Or3	09:30	A novel lifetime predication with anomalous negative bias temperature instability phenomena in HfO2/SiON gate stack <i>Chen, Shih-Chang; Chien, Chao-Hsin; Lu, Wen-Tai; Lan, Wen-Ting; Lou, Jen-Chung</i> <i>National Chiao Tung University, Institute of Electronics Engineering, Hsinchu, Taiwan</i>	EMP11-Or5
09:45	NEMS-based piezoresistive cantilevers for magnetic resonance force microscopy <i>Jiang, Yonggang; Ono, Takahito; Esashi, Masayoshi</i> <i>Tohoku University, Department of Nanomechanics, Sendai, Japan</i>	NS34-Or4	09:45	0.5 nm thick titanium-silicon oxynitride gate dielectric film made by ECR plasma oxynitridation and titanium E-Beam evaporation <i>Manera, G. A.; Diniz, J. A.; dos Santos, R. E.; Moshkalyov, S. A.; Doi, J.; Swart, J. W.</i> <i>CCS and FECC, UNICAMP, Campinas-SP, Brazil</i>	EMP11-Or6
10:00	Mechanical detection and mode shape imaging of vibrational modes of micro and nanomechanical resonators by atomic force microscopy <i>San Paulo, Alvaro¹; Garcia-Sanchez, Daniel¹; Black, Justin²; White, Richard²; Bokor, Jeffrey²; Perez-Murano, Francesc¹; Bachtold, Adrian¹</i> ¹ Instituto de Microelectronica de Barcelona - CSIC, Bellaterra, Spain; ² UC Berkeley, Berkeley, CA, United States	NS34-Or5	10:00	Electrical and Material Characterization of Atomic-Layer-Deposited Al2O3 Gate Dielectric on Ammonium Sulfide-Treated GaAs Substrates <i>Cheng, Chao-Ching¹; Chien, Chao-Hsin²; Luo, Guang-Li³; Kei, Chi-Chung⁴; Chang, Ching-Chih¹; Hsiao, Chien-Nan⁵; Perng, Tsong-Pyng⁶; Chang, Chun-Yen¹</i> ¹ National Chiao-Tung University, Institute of Electronics, Hsinchu, Taiwan; ² National Chiao-Tung Univ. & National ND, Hsinchu, Taiwan; ³ National Nano Device Laboratory, Hsinchu, Taiwan; ⁴ National Tsing-Hua Univ. & National ARL, Hsinchu, Taiwan; ⁵ National Applied Research Laboratories, Hsinchu, Taiwan; ⁶ National Tsing-Hua University, Hsinchu, Taiwan	EMP11-Or7

SESSION TIME 10:45-12:15

Plenary Session V

Room: Viktoriahallen

Time	Title	Abs No
10:45	Understanding the interface structure of alkanethiolate layers on coinage metal surfaces <i>Woodruff, D Phil</i> <i>University of Warwick, Physics, Coventry, United Kingdom</i>	PLE05-IS1
11:30	Scanning tunneling microscope and photons <i>Aono, Masakazu¹; Sakurai, M¹; Kuwahara, Y.²; Uemura, T.³; Saito, A.²</i> <i>¹NanoSystem Functionality Center, NIMS, Tsukuba, and ICORP Program, JST, Tokyo, Japan; ²ICORP Program, JST, Toyko, and Department of, Precision Science and Technology, Osaka University, Osaka, Japan; ³NanoSystem Functionality Center, NIMS, Tsukuba, Precision Science & Technology Dept., Osaka Univ., Osaka, Japan</i>	PLE05-IS2