Oral Programme

Monday 17 June 2019					
15:00-17:00	Registration | Room: Ground Floor Galleries				
Room Chair	Auditorium Mario Rocca				
17:00-17:15	Opening Remarks				
17:15-18:15	**[PL01] S-scheme heterojunction photocatalyst: Design, fabrication and application** Jiaguo Yu, *Wuhan University of Technology, China*				
18:15-19:15	Welcome Drinks Reception | Ground Floor Galleries				
Tuesday 18 June 2019					
Room Chair	Auditorium Maria Dinescu				
08:30-09:30	**[PL02] Femtosecond laser 3D processing for fabrication of functional micro/nanodevices** Koji Sugioka, *RIKEN Center for Advanced Photonics, Japan*				
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Galilei Hall	Room C
09:40-11:00	**Session 1: Biointerfaces** Session Chair: Peter Kingshott	**Session 2: Electrochemistry & Surface Engineering** Session Chair: Guido Grundmeier	**Session 3: Surface Science of Catalysis, Electrocatalysis and Photocatalysis** Session Chair: Jiaguo Yu	**Session 4: Surface Science Applied to Energy Conversion and Storage** Session Chair: Fátima Montemor	**Session 5: Functional Surfaces and Coatings** Session Chair: Tadahiro Komeda
09:40-10:20	**[KN01] Liquid metals from creating two dimensional materials to CO_2 capture** Kourosh Kalantar-Zadeh, *University of New South Wales, Australia*	**[KN02] Scanning electrochemical cell microscopy (SECCM) as a tool for single-entity electrocatalysis investigations** Corina Andronescu, *University of Duisburg-Essen, Germany*	**[O03.01] Design of active bifunctional electrocatalysts with transition metal dichalcogenides using single atom doping** B. Han*, J. Hwang, S. Noh, J. Kang, *Yonsei University, Republic of Korea*	**[KN04] Predicting interfaces in battery electrodes from their fabrication process parameters** Alain Ngandjong, *Université de Picardie Jules Verne, France*	**[KN05] Laser direct writing and sintering for flexible electronic applications** Ioanna Zergioti, *National Technical University of Athens, Greece*
10:00-10:20			**[O03.02] Multiscale analysis of surface processes by in situ environmental microscopies** C. Barroo*[1,2], Z.J. Wang[2,3], Y. De Decker[1], M.G. Willinger[2,3], T. Visart de Bocarmé[1], [1]*Université Libre de Bruxelles, Belgium,* [2]*Fritz*		

			Haber Institute of the Max Planck Society, Germany, [3]ETH Zurich, Switzerland		
10:20-10:40	**[O01.01] VOCs Removal by photo-fenton oxidation using iron-containing zeolites: Change of surface chemical properties after UV irradiation** S. Kim*[1], J. Bae[2], K. Kim[1,2], *[1]University of Science and Technology Korea, Republic of Korea, [2]Korea Institute of Civil Engineering and Building Technology, Republic of Korea*	**[O02.01] Room temperature CO2 reduction to solid carbon species on liquid metals featuring atomically thin ceria interfaces** T. Daeneke, *RMIT University, Australia*	**[O03.03] Unravelling the catalytic reactivity on a single nanoparticle: Field emission techniques applied to Au-based catalysis** L. Jacobs*[1], T. Visart de Bocarmé[1], A.J. Akey[2], D.C. Bell[2], C. Barroo[1,2], *[1]Université Libre de Bruxelles, Belgium, [2]Harvard University, USA*	**[O04.01] CO_2 adsorption and desorption studies on bimetallic MgO/Fe_2O_3: A critical look at the dissociation of carbonate and CO_2 adsorbed species** A.H. Lahuri*[1], M.A. Yarmo[2], T.S. Marliza[1], M.N. Abu Tahari[2], N. Dzakaria[2], B. Abdul Rahim[3], S.R. Esa[3], Y.H. Taufiq-Yap[4], *[1]Universiti Putra Malaysia Bintulu Campus, Malaysia, [2]Universiti Kebangsaan Malaysia, Malaysia, [3]MIMOS Berhad, Malaysia, [4]Universiti Putra Malaysia, Malaysia*	**[O05.01] Reorganization of chevron-like Au(111) reconstruction induced by slip traces: A direct STM observation at the atomic scale** C. Coupeau*, D. Chauraud, M. Drouet, L. Vernisse, J. Durinck, *University of Poitiers, France*
10:40-11:00	**[O01.02] Parylene C - casein biointerface optimisation towards osseointegration: The beneficial role of oxygen surface functionalization** M. Golda-Cepa*, A. Siuta, A. Kotarba, *Jagiellonian University, Poland*	**[O02.02] The influence of protein concentration on the corrosion and tribocorrosion behaviour of CoCrMo biomedical grade alloys** R. Namus*, W.M. Rainforth, *The University of Sheffield, UK*	**[O03.04] g-$C_3N_4/BiVO_4$ nanofibers with enhanced visible light catalytic performance** T.J. Hu*[1], Z.Y. Xia[2], Z.Y. Chu[1], *[1]National University of Defence Technology, China, [2]Xiangtan University, China*	**[O04.02] Modelling and performance improvement of nanostructured Cu_2O/TiO_2 pn heterojunction solar cells using SCAPS** K. Ukoba*, T.C. Jen, *University of Johannesburg, South Africa*	**[O05.02] Preventive repair of cement-based substrates using polymer adhesive coatings modified by waste glass powder** L. Sadowski*, A. Chowaniec, A. Zak, *Wroclaw University of Science and Technology, Poland*
11:00-11:30	Refreshment Break | Ground Floor Galleries				
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Galilei Hall	Room C
11:30-12:50	**Session 1: Biointerfaces (cont.)** Session Chair: Peter Kingshott	**Session 2: Electrochemistry & Surface Engineering (cont.)** Session Chair: Guido Grundmeier	**Session 3: Surface Science of Catalysis, Electrocatalysis and Photocatalysis (cont.)** Session Chair: Jiaguo Yu	**Session 4: Surface Science Applied to Energy Conversion and Storage (cont.)** Session Chair: Fátima Montemor	**Session 5: Functional Surfaces and Coatings (cont.)** Session Chair: Tadahiro Komeda
11:30-11:50	**[O01.03] Visible-light responsive TiO_2-nanorods/collagen@gold-nanoparticles composite**	**[O02.03] Pyran derivatives as acidizing corrosion inhibitors for N80 steel in sweet corrosive environment:**	**[O03.05] Z-scheme photocatalytic properties of curcumin functionalized nanocomposites** I. Sinha*, S. Pal,	**[O04.03] Effect of illumination on H_2O and CO_2 adsorption on $(Ce_{0.9}Ti_{0.1})O_2$ surfaces** Y. Mordekovitz*,	**[O05.03] Effect of nitridation treatment on cyclic oxidation of the gamma-Ti-46Al-2Nb and Ti-46-2Nb-**

	coating for rapid gene delivery L.L. Yao*, W.J. Weng, K. Cheng, *Zhejiang University, China*	**Theoretical and experimental approaches** A. Singh, *SWPU, China*	S. Kumar, *Indian Institute of Technology (Banaras Hindu University), India*	S. Hayun, *Ben Gurion University of the Negev, Israel*	**0.7Cr-0.3Si based intermetallic alloys** M.N. Mathabathe*[1,2], A.S. Bolokang[2], G. Govender[1], C.W. Siyasiya[1], R.J. Mostert[1], [1]*University of Pretoria, South Africa,* [2]*Council for Scientific and Industrial Research, Materials Science and Manufacturing, South Africa*
11:50-12:10	**[O01.04] Patterned surface termination of ultrananocrystalline diamond films for guided cell attachment and growth** D. Merker[1], J.P. Reithmaier[1], M.D. Apostolova[2], C. Popov*[1], [1]*Institute of Nanostructure Technologies and Analytics (INA), University of Kassel, Germany,* [2]*Roumen Tsanev Institute of Molecular Biology, Bulgarian Academy of Sciences, Bulgaria*	**[O02.04] Copper surface functionalization by fluorinated fullerenes** M. Petukhov*[1], A. Oreshkin[2], D. Muzychenko[2], [1]*University of Burgundy Franche-Comte, France,* [2]*Moscow State University, Russia*	**[O03.06] Electronic structure and photocatalytic mechanism of graphitic carbon nitride modified with plasmonic Ag@SiO_2 core-shell nanoparticles by X-ray absorption spectroscopy** Y.C. Huang*[1], J.L. Chen[2], J. Chen[3], S. Shen[3], Y.R. Lu[2], W.C. Chou[1], C.L. Dong[4], [1]*National Chiao Tung University, Taiwan,* [2]*National Synchrotron Radiation Research Center, Taiwan,* [3]*Xi'an Jiaotong University, China,* [4]*Tamkang University, Taiwan*	**[O04.04] Surface state and thermoelectric transport in Bi_2Te_3 topological insulators layers and wires** A. Nikolaeva*[1,2], L. Konopko[1,2], T. Huber[3], K. Rogacki[2], I. Gherghishan[1], [1]*Ghitu Institute of Electronic Engineering and Nanotechnologies, Republic of Moldova,* [2]*Academy of Sciences, Poland,* [3]*Howard University, USA*	**[O05.04] An FT-IRRAS-study of anodic oxide films on aluminum alloys and the impact of bath aging** M. Schneider*, U. Gierth, K. Kremmer, *Fraunhofer IKTS Dresden, Germany*
12:10-12:30	**[O01.05] Strong interaction on metal nanoparticles-bacteria biointerface** W. Pajerski*[1], M. Golda-Cepa[1], D. Ochonska[2], M. Brzychczy-Wloch[2], M. Jarosz[1], M. Pawlyta[3], P. Indyka[1], Z. Sojka[1], A. Kotarba[1], [1]*Jagiellonian University, Poland,* [2]*Jagiellonian University Medical College, Poland,* [3]*Silesian University of Technology, Poland*	**[O02.05] Tracer study of porous anodic alumina growth in chromic acid** A. Baron-Wiechec*[1], P. Skeldon[2], J.J. Ganem[3], I.C. Vickridge[3], [1]*Guangdong Technion – Israel Institute of Technology, China,* [2]*The University of Manchester, UK,* [3]*Institut des Nanosciences de Paris, France*	**[O03.07] X-ray radiolytic synthesis of supported gold and silver nanoparticles onto Graphene Oxide and Graphene Oxide Monoliths** M. Molina Higgins, S. Ghobadi, C.E. Castano*, J. Rojas *Virginia Commonwealth University, USA*	**[O04.05] The adsorption of hydrogen on Li-doped defective (8,0) SWCNT: A DFT study** C.R. Luna, M. Patrignani, P. Bechthold, G. Brizuela, C. Pistonesi, P. Jasen, A. Juan*, *Departamento de Física and Instituto de Física del Sur (UNS-CONICET), Argentina*	**[O05.05] A new P-type transparent conductive LaSe2 film deposited by combining RF magnetron sputtering and selenized annealing** G. Gao*, L. Yang, B. Dai, J.Q. Zhu, *Harbin Institute of Technology, China*

12:30-12:50	**[O01.06] Biomimetic behaviour of bare and coated Mg-2Ca alloy for biomedical implant applications** N. Bexiga[1], M.M. Alves*[1], M. Taryba[1], H. Jin[2], S. Esmaeili[3], M.F. Montemor[1], *[1]Instituto Superior Técnico, Portugal, [2]CanmetMATERIALS, Canada, [3]University of Waterloo, Canada*	**[O02.06] Comparison the effect of different coupling agents on the properties of surface organic modified magnesium titanate particles** H. Sun*[1,2], Y. Qi[1,2], J. Zhang[1], *[1]Nanjing Tech University, China, [2]Jiangsu Collaborative Innovation Center for Advanced Inorganic Function Composites, China*	**[O03.08] Electronic properties of organic thin film on Au(111) and Cu(111) studied by UPS, MAES and DFT calculation** S. Masuda*[1], K. Akimoto[2], *[1]The University of Tokyo, Japan, [2]University of Tsukuba, Japan*	**[O04.06] Effect of cobalt on barrier properties of electroplating RuCo alloy thin film** K. Wu, W. Chen*, J. Tseng, *National Yunlin University of Science and Technology, Taiwan*	**[O05.06] Stability and antifouling properties of adsorbed polymer films on stainless steel** S. Moratti*[1], F. Kousar[1], J. Nichols[1], J. McQuillan[1], J. Malstrom[2], *[1]University of Otago, New Zealand, [2]University of Auckland, New Zealand*
12:50-14:00	Lunch | Ground Floor Galleries				
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Galilei Hall	Room C
14:00-16:20	**Session 6: Biointerfaces II** Session Chair: Peter Kingshott	**Session 7: Surface Engineering and Functionalization** Session Chair: Guido Grundmeier	**Session 8: Surface Science of Catalysis, Electrocatalysis and Photocatalysis II** Session Chair: Jiaguo Yu	**Session 9: Surface Science Applied to Energy Conversion and Storage II** Session Chair: Fátima Montemor	**Session 10: Functional Surfaces and Coatings II** Session Chair: Paolo Ossi
14:00-14:40	**[KN06] Amino acids adsorption at Ag surfaces: The bio-interface at the nanoscopic level** Letizia Savio, *IMEM-CNR, Italy*	**[KN07] Surface functionalization for improved adhesion on electrochemically active surfaces** Markus Valtiner, *Vienna University of Technology & Institute for Applied Physics, Austria*	**[KN08] Strain engineering, and why it pays to work under pressure** Ian Shuttleworth, *Nottingham Trent University, UK*	**[KN09] Interfacial chemical dynamics: Oxidation of semiconductors, graphite, and superconducting niobium** Steven Sibener, *University of Chicago, USA*	**[KN10] Diagnosis of laser ablation plasmas and microscopic analysis of solids using nonlinear optics** Marta Castillejo, *CSIC, Spain*
14:40-15:00	**[O06.01] Observation of Kondo resonance in graphene decorated with cerium** C. Hwang, *Pusan National University, Republic of Korea*	**[O07.01] Mechanical analysis and modeling of porous thermal barrier coatings** S. Cui*[1], W. Liang[1], L. Mora[2], Q. Miao[1], J. Domblesky[3], L. Yu[1], *[1]Nanjing University of Aeronautics and Astronautics, China, [2]Institute Eduardo Torroja of Construction Sciences, Spain, [3]Marquette University, USA*	**[O08.01] High activity hydrogen evolution catalysis by uniquely designed amorphous/metal interface of core-shell phosphosilfide/N-doped CNTs** B. Han*, J. Kang, *Yonsei University, Republic of Korea*	**[O09.01] "Absolute" surface quantification of chalocogenide solar absorber through photoelectron spectroscopy measurements** S. Béchu[1,2], M. Bouttemy[1,2], A. Loubat[1,2], D. Aureau[1,2], M. Frégnaux[1,2], J. Vigneron[1,2], A. Etcheberry*[1,2], *[1]Institut Photovoltaique d'Ile-de-France, France, [2]Institut*	**[O10.01] Super-robust and anti-corrosive NiCrN hydrophobic coating fabricated by multi arc ion plating** X.Y. Du*, Y.H. Li, Z.X. Song, B. Gao, *State Key Laboratory for Mechanical Behavior of Materials, Xi'an Jiaotong University, China*

				Lavoisier de Versailles, France	
15:00-15:20	**[O06.02] Transfer-free preparation of graphene for ultrafast optical devices** Y.W. Song, *Korea Institute of Science and Technology, Republic of Korea*	**[O07.02] Immobilisation of different nanoparticles on the surface of polymer parts during moulding** J. Nagel*, P. Zimmermann, K. Schlenstedt, A. Janke, *Leibniz-Institut für Polymerforschung Dresden e.V., Germany*	**[O08.02] Facile synthesis and high H2-evolution performance of suspensible CdS nanocrystal photocatalyst** H. Yu, *Wuhan University of Technology, China*	**[O09.02] Low-energy electron emission at the separation of gold-platinum surfaces induced by galactic cosmic-ray ions measured with LISA Pathfinder** M. Villani*[1,2], C. Grimani[1,2], M. Fabi[1], N. Finetti[3], *[1]Università degli Studi di Urbino "Carlo Bo", Italy, [2]INFN Sezione di Firenze, Italy, [3]Università degli Studi dell'Aquila, Italy*	**[O10.02] Near-field and far-field characterizations of plasmonics silicon solar cells using two-dimension layers of indium nanoparticles embedded in antireflective coating** P.J. Lin*, W.J. Ho, J.J. Liu, Y.R. Chen, X.Y. Chen, C.H. Ho, *National Taipei University of Technology, Taiwan*
15:20-15:40	**[O06.03] Are graphitic surfaces hydrophobic?** L. Li, *University of Pittsburgh, USA*	**[O07.03] Novel approach to chemical sensitization of metal oxide nanomaterials** A. Teplyakov, *University of Delaware, USA*	**[O08.03] Novel electrocatalysts for hydrogen evolution based on carbon fibers modified by cobalt** M. Streckova*[1], R. Orinakova[2], M. Heckova[1], A. Guboova[2], J. Hovancova[2], Z. Dankova[3], V. Girman[2], *[1]Slovak Academy of Science, Slovakia, [2]P.J. Safarik University, Slovakia*	**[O09.03] Using fundamental surface science measurements on lab grown thin films to understand the behavior of barrier layers in TRISO fuels** J. Terry*, R. Seibert, Z. Lee, M. Warren, *Illinois Institute of Technology, USA*	**[O10.03] Evaluation of the microstructural features of HVOF sprayed Ni on both mild and stainless-steel substrates** M. Abbas*[1], P. Munroe[1], G. Smith[2], *[1]University of New South Wales, Australia, [2]Stony Brook University, New York, USA*
15:40-15:50	Short break				
15:50-16:10	**[O06.04] Liquid metal derived ultrathin, highly flexible and large area printable two-dimensional ITO** T. Daeneke, C. McConville*, *RMIT University, Australia*	**[O07.04] Antifriction and antiwear properties of yttrium doped zinc oxide nanoparticles** R.B. Rastogi*, D.K. Verma, B. Kumar, *Indian Institute of Technology (BHU), India*	**[O08.04] A computational study of an inverse catalyst: ZnO thin films supported on coinage metals** S. Tosoni*, T.V. Ho, G. Pacchioni, *Università di Milano-Bicocca, Italy*	**[O09.04] A combinatorial approach for the study of disordered photo-sensitized ferroelectric materials** A.M. Márquez*, J.J. Plata, J. Amaya Suárez, J. Fdez. Sanz, *Universidad de Sevilla, Spain*	**[O10.04] Enhancing anti-biofouling activity through immobilization of a-chymotrypsin on the Cu(II) adsorbed-poly(vinyl alcohol)/poly(acrylic acid) electrospun nanofibers** S.B. Kim*, J.K. Kang, S.C. Lee, T.H. Lee, J.A. Park, *Seoul National University, Republic of Korea*
16:10-16:30	**[O06.05] Fe-MOF/rGO and GQDs@PANI/rGO as Ion-selective Electrodes to**	**[O07.05] Hydrophilic to ultrahydrophobic transition of Al 7075 by affordable ns fiber**	**[O08.05] Au nanoparticles loading and plasma treatment effects on the**	**[O09.05] High-throughput search of substrates for the discovery of new epitaxy**	**[O10.05] Fabricating solar-reflective, hydrophobic polymer roofing materials with excellent cooling and**

	Enhance Asymmetric Capacitive Deionization J.Y. Liu*[1], R.A. Doong[1,2], [1]*National Chiao Tung University, Taiwan,* [2]*National Tsing Hua University, Taiwan*	**laser and vacuum processing** P. Hauschwitz*[1], J. Radhakrishnan[1], J. Brajer[1], D. Rostohar[1], P. Jiricek[1], J. Kopecek[1], T. Mocek[1], [1]*Academy of Sciences of the Czech Republic, Czech Republic*	**Au/TiO2 interaction for different TiO2 polymorphs** A. Achour*[1], M. Islam[2], S. Vizireanu[3], G. Dinescu[3], J.J. Pireaux[1], [1]*University of Namur, Belgium,* [2]*King Saud University, Saudi Arabia,* [3]*National Institute for Laser, Plasma and Radiation Physics, Romania*	**photo-sensitized ferroelectric structures** J. Amaya Suárez*, J.J. Plata, A.M. Márquez, J. Fdez. Sanz, *Universidad de Sevilla, Spain*	**anti-icing properties through surface etching** Z.P. Mao*[1,2], Y.L. Qi[1,2], J. Zhang[1,2], [1]*Nanjing Tech University, China,* [2]*Jiangsu Collaborative Innovation Center for Advanced Inorganic Function Composites, China*
16:30-16:50	**[O06.06] Complex optical conductivity of two-dimensional transition metal dichalcogenides** B.K. Song*, H.G. Gu, M.S. Fang, H. Jiang, X.G. Chen, S.Y. Liu, *Huazhong University of Science and Technology, China*	**[O07.06] Tuneable self-assembly in ultra-thin block copolymer films** M. Konefal*, A. Zhigunov, E. Pavlova, P. Cernoch, *Institute of Macromolecular Chemistry of the Czech Academy of Sciences, Czech Republic*	**[O08.06] Active and stable ruthenium based electrocatalysts for hydrogen evolution by seawater splitting** M. Sarno, E. Ponticorvo, D. Scarpa*, *University of Salerno, Italy*	**[O09.06] Electrospun PAN/$MAPbI_3$ composite fibers for flexible and broadband photodetectors** Z. Jiang*, Z. Chu, G. Li, W. Wang, Y. Zhang, C. Wang, *National University of Defense Technology, China*	**[O10.06] UV-induced modification of graphene-based sensor surfaces investigated by Raman microscopy mapping** E. Toto*[1], S. Botti[2], S. Laurenzi[1], M.G. Santonicola[1], [1]*Sapienza University of Rome, Italy,* [2]*ENEA CR Frascati, Italy*
16:50-17:10	**[O06.07] Pulsed laser deposition and scanning tunneling microscopy of two-dimensional nanocrystals on metal substrates** F. Tumino*, C. Casari, M. Passoni, V. Russo, A. Li Bassi, *Politecnico di Milano, Italy*	**[O07.07] Exploring the magnetic coupling of Co and Ni tetra phenyl porphyrins on oxygen-passivated Fe(001)** M. Jagadeesh, A. Calloni, G. Bussetti*, A. Lodesani, A. Picone, A. Brambilla, M. Finazzi, L. Duò, F. Ciccacci, *Politecnico di Milano, Italy*	**[O08.07] Intrinsic kinetic analysis of the photocatalytic degradation of ethylene over TiO2 thin film in a batch reactor** R.E. Stroe*, L.A. Rosendahl, *Aalborg University, Denmark*	**[O09.07] Magnetic, morphological and electrochemical characteristics of CoFe2O4-carbon core-shell magnetic nanoparticles for supercapacitor application** T. Arun*[1], P. Muhammed Shafi[2], A. Chandra Bose[2], P.V. Satyam[3], A. Akbari-Fakhrabadi[1], [1]*University of Chile, Chile,* [2]*National Institute of Technology Thiruchirappalli, India,* [3]*Institute of Physics, India*	**[O10.07] Facile preparation of superhydrophobic wood surfaces via spraying of aqueous alkyl ketene dimer suspensions** B. Arminger*[1,2], W. Gindl-Altmutter[2], C. Hansmann[1], [1]*Wood K plus – Competence Centre for Wood Composites and Wood Chemistry, Austria,* [2]*BOKU University of Natural Resources and Life Sciences, Austria*
17:10-19:10	Refreshment Break & Poster Session 1 | Ground Floor Galleries				
19:10-20:45	Walking Tour (Optional Ticketed Event)				

Wednesday 19 June 2019					
Room Chair	Auditorium WeiXin Huang				
08:30-09:30	**[PL03] Biomolecules on metal surfaces, from UHV to the liquid phase** Claire-Marie Pradier, *Institut de Chimie du CNRS, France*				
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Galilei Hall	Room C
09:40-11:00	**Session 11: Surface Engineering and Functionalization II** Session Chair: Flavian Stokker	**Session 12: Advances in Surface Characterization Tools** Session Chair: Jeff Terry	**Session 13: Semiconductors – Surface and Interface** Session Chair: Alfredo Juan	**Session 14: Surface Science Applied to Energy Conversion and Storage III** Session Chair: Yang Shen	**Session 15: Functional Surfaces and Coatings III** Session Chair: Paolo Ossi
09:40-10:00	**[O11.01] Gallic acid grafting to metallic surface** S. Ferraris*[1], M. Cazzola[1], A. Cochis[2], G. Ubertalli[1], E. Prenesti[3], L. Rimondini[2], S. Spriano[1], *[1]Politecnico di Torino, Italy, [2]Università del Piemonte Orientale, Italy, [3]Università di Torino, Italy*	**[O12.01] In-situ complementary XPS and Raman analysis of technologically important materials** P. Mack*, T. Nunney, *Thermo Fisher Scientific, UK*	**[O13.01] Size effect on the interface damage behaviours of Al/Si3N4 nano-multilayers under thermal stress** M. Wang*[1], X. Zhang[1], D. Wang[2], P. Schaaf[2], *[1]Liaoning Technical University, China, [2]TU Ilmenau, Germany*	**[O14.01] Fe_3O_4/mineralized collagen coatings and BMSCs responsiveness** S.Y. Lin*, L.Q. Dong, K. Cheng, W.J. Weng, *Zhejiang University, China*	**[O15.01] Spatial elemental investigations in nanostructured alloyed Ag/Au SERS substrates by magnetron sputtering oblique-angle Co-deposition** P. Eiamchai*, C. Chananonnawathorn, M. Horprathum, V. Patthanasettakul, S. Limwichean, N. Nuntawong, *National Electronics and Computer Technology Center, Thailand*
10:00-10:20	**[O11.02] Femtosecond-laser-ablation induced transformations in the structure and surface properties of diamond-like nanocomposite films** S.M. Pimenov*[1], E.V. Zavedeev[1], N.R. Arutyunyan[1], M.Y. Presniakov[2], O.S. Zilova[3], M.L. Shupegin[3], B. Jaeggi[4], B. Neuenschwander[4], *[1]General Physics Institute, Russia, [2]NRC Kurchatov Institute, Russia, [3]NRU MPEI, Russia, [4]Bern University of Applied Sciences, Switzerland*	**[O12.02] Observing the evolution of surface reactions with dynamic XPS** C. Kaiser*, B. Krömker, G. Prümper, *Sigma Surface Science GmbH, Germany*	**[O13.02] Electrochemical regeneration of indium phosphide semi-conductor after glow discharge spectroscopy profiling** S. Béchu[1,2], M. Bouttemy*[2], A. Etcheberry[2], C. Eypert[3], S. Gaiaschi[3], D. Aureau[2], M. Frégnaux[2], J. Vigneron[2], P. Chapon[3], N. Simon[2], *[1]Institut Photovoltaique d'Ile-de-France, France, [2]Institut Lavoisier de Versailles, France, [3]Horiba Scientific, France*	**[O14.02] Low-temperature processable Sn-doped ZnO films as electron transporting layers for perovskite solar cells** P. Malison[1], C. Bhoomanee[1], D. Wongratanaphisan*[1], S. Choopun[1], T. Sagawa[2], P. Ruankham[1], *[1]Chiang Mai University, Thailand, [2]Kyoto University, Japan*	**[O15.02] Synthesis and characterization of nanostructured TiO2/Au inverse opals by atomic layer deposition** P. Birnal, V. Potin, I. Pochard, B. Domenichini, M.C. Marco De Lucas*, L. Imhoff, *CNRS-Université de Bourgogne, France*

10:20-10:40	**[O11.03] Fabrication of catalytic surfaces using bacteria as nanoparticles carriers** M. Golda-Cepa[1], J. Duch[1], W. Pajerski[1], M. Jarosz[1], P. Indyka[1], D. Ochonska[2], M. Brzychczy-Wloch[2], Z. Sojka[1], A. Kotarba*[1], *[1]Jagiellonian University, Poland, [2]Jagiellonian University Medical College, Poland*	**[O12.03] XPS-Electrochemistry complementary approach for semiconductors** D. Aureau*, M. Fregnaux, M. Bouttemy, A. Etcheberry, A-M. Gonçalves, *UMR 8180 CNRS-UVSQ, France*	**[O13.03] Impact of boron and gallium doping on the lattice parameter in Si and $Si_{1-x}Ge_x$** M. Lee*, D-H. Ko, *Yonsei University, Republic of Korea*	**[O14.03] Direct growth of tin dioxide nanostructures on layer-controlled graphene as anode materials for lithium-ion batteries** K-C. Kim, *Mokwon University, Republic of Korea*	**[O15.03] Investigation of nanomechancial and nanotribological behaviour of glassy polymers after low energy ion irradiation** J. Zekonyte*[1], M. Davis[1], J. McGettrick[2], A. Krupski[1], J. Radulovic[1], *[1]University of Portsmouth, UK, [2]Swansea University, UK*
10:40-11:00	**[O11.04] Oxygen plasma treatment as a versatile method for tuning the surface properties of carbon materials** J. Duch*[1], M. Mazur[2], M. Golda-Cepa[1], W. Piskorz[1], A. Kotarba[1], *[1]Jagiellonian University, Poland, [2]University of St Andrews, UK*	**[O12.04] Surface characterization technique for simultaneous scanning polarization force microscopy and magnetic force microscopy imaging** A. Moldovan*, M. Dinescu, *INFLPR, Romania*	**[O13.04] Temperature dependent electrical transport and hydrogen sensing of titanium dioxide** A.A. Haidry*[1,2], L. Xie[1], Q. Fatima[1], Z. Wang[1], Z-J. Yao[1], T. Roch[2], T. Plecenik[2], B. Saruhan[3], *[1]Nanjing University of Aeronautics and Astronautics (NUAA), China, [2]Comenius University, Slovakia, [3]Institute of Materials Research, German Aerospace Center (DLR), Germany*	**[O14.04] Growth of vanadium dioxide polycrystalline platelets on layer-controlled graphene as cathode material of lithium-ion batteries** K-C. Kim, *Mokwon University, Republic of Korea*	**[O15.04] Epitaxial growth of BiFeO3 thin films for energy and environmental applications** F. Andrei[1], R. Birjega[1], N.D. Scarisoreanu*[1], M. Dinescu[1], N. Enea[1], V. Ion[1], I. Boerasu[1], V.S. Teodorescu[2], C. Ghica[2], R.F. Negrea[2], *[1]National Institute for Laser, Plasma and Radiation Physics, Romania, [2]National Institute for Material Science, Romania*
11:00-11:30	Refreshment Break | Ground Floor Galleries				
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Galilei Hall	Room C
11:30-12:50	**Session 11: Surface Engineering and Functionalization II (cont.)** Session Chair: Flavian Stokker	**Session 16: Functional Surfaces and Coatings IV** Session Chair: Eva Rodriguez	**Session 13: Semiconductors – Surface and Interface (cont.)** Session Chair: Alfredo Juan	**Session 17: Miscellaneous** Session Chair: Ian Shuttleworth	**Session 15 Functional Surfaces and Coatings III (cont.)** Session Chair: Paolo Ossi
11:30-11:50	**[O11.05] Synthesis of sulfide-rich bimetallic materials on graphene oxide sheets and their mechanistic investigation on adsorption of arsenite and arsenate from waters** S. Muthu Prabhu*,	**[O16.01] A multifunctional superhydrophobic, fluorescent, pH-sensitive and anti-bacterial surface coating based on electrodeposited polymer** G. Ramos Chagas*[1,2],	**[O13.05] Temperature dependence of fine structure splitting in a single GaAs quantum ring** H. Kim*[1], J-S. Kim[2] *[1]Northeast Normal University, China, [2]Yeungnam University, Republic of Korea*	**[O17.01] Adsorption of heavy metals ions onto g-C_3N_4** R. Marsalek*, A. Gashi, *University of Ostrava, Czech Republic*	**[O15.05] Effect of graphene on the fretting wear behavior of micro-arc oxidation coating on Zr-1Sn-1Nb-0.3Fe alloy** Z.Y. Li*[1], Z.B. Cai[1], Y. Ding[1], X.J. Cui[2], Z.B. Yang[3], M.H. Zhu[1], *[1]Southwest Jiaotong*

	C.M. Park, *Kyungpook National University, Republic of Korea*	T. Darmanin[2], F. Guittard[2], *[1]Université de Toulon, France, [2]Université Côte d'Azur, France*			*University, China, [2]Sichuan University of Science and Engineering, China, [3]Nuclear Power Institute of China, China*
11:50-12:10	**[O11.06] Drastic improvement in electroactive property of polyvinylidene fluoride (PVDF) by engineering of interface between nanorods of KNN and PVDF: A magic material for flexible nanogenerator** S. Bairagi, S.W. Ali, *Indian Institute of Technology, Delhi, India*	**[O16.02] *In situ* surface imaging: High temperature environmental scanning electron microscopy study of the surface changes in morphology and structure during heating of an Al-Si coated boron steel** M. Barreau*[1], C. Méthivier[1], T. Sturel[2], C. Allely[2], P. Drillet[2], S. Cremel[2], R. Grigorieva[2], B. Nabi[3], R. Podor[4], J. Lautru[4], *[1]Sorbonne Université, France, [2]ArcelorMittal Research SA, France, [3]Centre for Research in Metallurgy, Belgium, [4]Université de Montpellier, France*	**[O13.06] Ligand controlled synthesis of $Cu_{2-x}Se$ nanocrystals: Tuning shape, localized surface plasmon resonances and their stabilization** D. Zhu*, A. Tang, *Beijing JiaoTong University, China*	**[O17.02] Density functional theory study on the surface properties and floatability of hemimorphite and smithsonite** C. Han*[1], T.T. Li[1], W. Zhang[1], H. Zhang[1], S.K. Zhao[1], Y.X. Ao[2], D.Z. Wei[1], Y.B. Shen[1], *[1]Northeastern University, China, [2]Shenyang Aerospace University, China*	**[O15.06] Anti-biofilm coatings implementing ultra-stable laser-ablated metal nanoparticles and their real-life applications** M. Izzi*[1], M.C. Sportelli[1,2], A. Volpe[2], M. Clemente[1], R.A. Picca[1], C. Di Franco[2], A. Ancona[2], N. Cioffi[1], *[1]University of Bari "Aldo Moro", Italy, [2]CNR, Istituto di Fotonica e Nanotecnologie, UOS Bari, Italy*
12:10-12:30	**[O11.07] Effects of functional group concentration, type, and configuration on their saturation of methanol adsorption on functionalized graphite** W. Dilokekunakul[1], N. Klomkliang*[2], P. Padungbut[1], S. Chaemchuen[3], *[1]Mahidol University, Thailand, [2]Suranaree University of Technology, Thailand, [3]Wuhan University of Technology, China*	**[O16.03] Antipathogen nanostructured coating for air filters** C. Balagna*[1], S. Perero[1], M. Irfan[2], F. Bosco[1], C. Mollea[1], M. Ferraris[1], *[1]Politecnico di Torino, Italy, [2]National Textile University, Pakistan*	**[O13.07] GaP/Si(001) interface study by Photoelectron spectroscopy with varying photon energies in combination with Ar gas cluster ion beam sputtering** O. Romanyuk[1], I. Gordeev*[1], O. Supplie[2], A. Paszuk[2], R.G. Wilks[3,4], J. Bombsch[3], C. Hartmann[3], R. Garcia-Diez[3], S. Ueda[5], E. Ukraintsev[1], *[1]Academy of Sciences of the Czech Republic, Czech Republic, [2]Ilmenau University of Technology, Germany, [3]Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany, [4]National*	**[O17.03] First-principles simulation study on the underwater adsorption of catechol on a hydrophobic graphite surface** R. Chitumalla, S. Chitumalla, J. Jang*, *Pusan National University, Republic of Korea*	**[O15.07] Surface functionalization of stainless steel AISI 316L - From proof of concept to high throughput** S. Faas[1], A. Peter[1], A. Lutey[2], G. Lazzini*[2], U. Bielke[1], V. Onuseit[1], L. Romoli[2], R. Weber[1], T. Graf[1], *[1]University of Stuttgart, Germany, [2]University of Parma, Italy*

			Institute for Materials Science, Japan		
12:30-12:50	**[O11.08] Development of nanoscale wet chemical engineering solutions for epitaxial quantum dots based solar applications** M. Bouttemy*[1,5], D. Aureau[1,5], M. Frégnaux[1,5], Y. Shoji[2,5], Z. Jehl[2,5], D. Suchet[3,5], J-F. Guillemoles[4,5], A. Etcheberry[1,5], Y. Okada[2,5], *[1]Institut Lavoisier de Versailles, France, [2]Research Center for Advanced Science and Technology, Japan, [3]Ecole Polytechnique, France, [4]CNRS-IPVF, France, [5]NextPV, Japan*	**[O16.04] Biological behaviour of novel β-Ti alloy with low Young's modulus subjected to the cold rolling** D. Kuczynska-Zemla*[1], E. Kijenska-Gawronska[1], A. Chlanda[1], A. Sotniczuk[1], P. Kwasniak[1], K. Topolski[1], M. Pisarek[2], M. Thomas[3], H. Garbacz[1], *[1]Warsaw University of Technology, Warsaw, Poland, [2]Polish Academy of Sciences, Poland, [3]TIMET Research & Development Dept, UK*	**[O13.08] Investigation of the effect of annealing temperature on TiO_2 film properties** S. Gürakar*[1], H. Ot[1], S. Horzum Sahin[2], T. Serin[1], *[1]Ankara University, Turkey, [2]Izmir Institute of Technology, Turkey*	**[O17.04] Effects of micro-knurling and laser micro texturing on aluminum surface long-term wettability** S. Divin-Mariotti*[1], V. Auger[2], G. Kermouche[3], F. Valiorgue[4], S. Valette[1], *[1]LTDS UMR CNRS, France, [2]CETIM, France, [3]Mines de Saint-Etienne, Centre MS, France, [4]Ecoe Nationale d'Ingénieurs de Saint-Etienne, LTDS UMR CNRS 5513, France*	**[O15.08] Submicron porous elastomeric coatings for durable icephobicity** T. Li*, Y. Zhuo, V. Håkonsen, Z. Zhang, J. He, *Norwegian University of Science and Technology (NTNU), Norway*
12:50-14:00	Lunch | Ground Floor Galleries				
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Galilei Hall	Room C
14:00-16:20	**Session 18: 2D Layered Materials and Surface Engineering** Session Chair: Aliaksandr Bandarenka	**Session 19: Advances in Surface Characterization Tools II** Session Chair: Chris McConville	**Session 20: Surface Science of Catalysis, Electrocatalysis and Photocatalysis III** Session Chair: Debora Marani	**Session 21: Surface Nanotechnology and Devices** Session Chair: Herbert Urbassek	**Session 22: Functional Surfaces and Coatings V** Session Chair: Andrew Teplyakov
14:00-14:40	**[KN11] Surface charge transfer doping enabled high performance optoelectronic devices based on 2d materials** Wei Chen, *National University of Singapore, Singapore & International Campus of Tianjin University, China*	**[KN12] A novel laser desorption method for measuring the adsorption energy of molecules on carbonaceous surfaces** Cristian Focsa, *Université de Lille, France*	**[KN13] Surface chemistry of zinc oxide nanoparticles: Optochemical sensing and photocatalysis** James Whitten, *University of Massachusetts Lowell, USA*	**[KN14] From engineered colloidal interfaces towards functional layers for energy conversion and storage** Doris Segets, *University of Duisburg-Essen (UDE), Germany*	**[KN15] Structure-function relationship in correlated oxides** Michel Boudard, *Grenoble INP, France*
14:40-15:00	**[O18.01] Synthesis of 2D materials using liquid metal solvents** T. Daeneke, *RMIT University, Australia*	**[O19.01] New nanoresonators for shell-isolated nanoparticle-enhanced Raman spectroscopy** A. Kudelski, *University of Warsaw, Poland*	**[O20.01] Tuning the structure of ultrathin iron oxide islands on Ru(0001) by UHV annealing** G. Carraro*[1], N. Michalak[1], Z. Milosz[1], M. Prieto[2], F. Genuzio[2,3], T. Schmidt[2],	**[O21.01] Surface and interface modification on nano-layers NiTi used for nano-electro-mechanical-system** A. Behera*[1], P. Mallick[2], B. Swain[1], S. Patel[1],	**[O22.01] Nanometer-thick fluorinated ionic liquid (IL) lubricants for hard disk drives** B. Wang[1], C. Moran[1], M. Stirniman[2], H. Tang[3], L. Li*[1], *[1]University of Pittsburgh, USA, [2]Western*

			M. Lewandowski[1], [1]*Adam Mickiewicz University, Poland,* [2]*Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin, Germany,* [3]*Elettra-Sincrotrone Trieste S.C.p.A., Basovizza, Italy*	K. Midathada[1], [1]*National Institute of Technology, Rourkela, India,* [2]*Hindustan Aeronautics Limited, Koraput, India*	*Digital, USA,* [3]*Seagate Technology LLC, USA*
15:00-15:20	**[O18.02] Plasma surface treatment and atomic layer deposition on polydimethylsiloxane (PDMS) membranes** C. Hoppe*[1], F. Mitschker[2], P. Awakowicz[2], L. Mai[3], A. Devi[3], T. de los Arcos[1], G. Grundmeier[1], [1]*University of Paderborn, Germany,* [2]*Ruhr-University Bochum, Germany*	**[O19.02] Characterization of functional layers and surface interactions using multi-parametric surface plasmon resonance (MP-SPR)** R. Bombera*, A. Järvinen, M. Albers, J. Kuncova-Kallio, *BioNavis Ltd., Finland*	**[O20.02] Mesoporous C-doped, N-doped and C, N-co-doped TiO_2 synthesis for visible light photodegradation of organic pollutants** C. Coromelci*[1,2], M. Palamaru[1], E. Mahu[1,3], M. Ignat[1,3], [1]*"Alexandru Ioan Cuza" University of Iasi, Romania,* [2]*"Gheorghe Asachi" Technical College, Iasi, Romania,* [3]*"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania*	**[O21.02] Spin transport in a homo-catenated molecular chain of group 14 elements** Y. Matsuura, *Nara National College of Technology, Japan*	**[O22.02] Self-healing coating for anti-icing** Y. Zhuo*, J. He, Z. Zhang, *Norwegian University of Science and Technology, Norway*
15:20-15:40	**[O18.03] Novel surface engineered particles for point-of-use water disinfection** D. Dixit*, C. Ghoroi, *Indian Institute of Technology Gandhinagar, India*	**[O19.03] Probing the phase, structure, and dynamics of the interfacial water formed on a hydrophobic surface by means of atomic force microscopy** L. Bai, Z. Zhang, J. Jang*, *Pusan National University, Republic of Korea*	**[O20.03] Structure evolution of oxide-supported metal nanoparticles monitored by IR spectroscopy** J. Wang, X. Yu, C. Yang, A. Nefedov, C. Wöll, Y. Wang*, *Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany*	**[O21.03] Mathematical model of tip oscillations: Influence on image quality** V. Deeva*[1], S. Slobodyan[2], [1]*Tomsk Polytechnic University, Russia,* [2]*Omsk State Technical University, Russia*	**[O22.03] Development of nickel aluminide diffusional coating on ODS ferritic-martensitic steel for corrosion resistance in high temperature super-critical carbon dioxide** C. Kim, J.H. Cha, S.H. Kim, C. Jang*, *Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea*
15:40-16:00	**[O18.04] Electrical transport properties of multi-contact interfaces and spots numerical imaging from surface profilometry** J. Ait Mohamed*[1,3], B. Jonckheere[1,2], R. Bouzerar[1], T. Bausseron[2],	**[O19.04] Cross section transmission electron microscopy study of epitaxial bismuth ferrite thin films grown by PLD on strontium titanate substrate** V.S. Teodorescu*[1], C. Ghica[1], R.F. Negrea[1], A.V. Maraloiu[1],	**[O20.04] Unravelling the complex features in STM images of O/Ag(110) system** T. Rawal[1], M. Smerieri[2], J. Pal[3], S. Hong[4,1], M. Alatalo[5], L. Savio[2], L. Vattuone[1], T. Rahman[1], M. Rocca*[2], [1]*University of Central Florida,*	**[O21.04] Photodetector of ZnO thin film fabricated on flexible mica substrate** Z.X. Tang*, X.G. Tang, Q.X. Liu, Y.P. Jiang, *Guangdong University of Technology, China*	**[O22.04] Trivalent chromium conversion coating formed on hot-dip Zn-55Al-1.6Si coated steel** J. Pan*, Y. Li, J.T. Qi, *China University of Petroleum (East China), China*

	G. Bersano[3], N. Brunetière[4], *[1]LPMC-Amiens, France, [2]SNCF, France, [3]IKOS CONSULTING, France, [4]Institut P'-Poitiers, France*	N.D. Scarisoreanu[2], M. Dinescu[2], R. Birjega[2], *[1]National Institute for Material Science, Romania, [2]National Institute for Laser, Plasma and Radiation Physics, Romania*	*USA, [2]IMEM-CNR, UOS Genova, Italy, [3]Fritz Haber Institute der Max Planck Gesellschaft, Germany, [4]Brewton-Parker College, USA, [5]University of Oulu, Finland*		
16:00-16:20	**[O18.05] *In situ* photoelectron study of atomic layer etching of iron and cobalt using chlorine and acetylacetone or hexafluoroacetylacetone** R. Opila*, Z. Wang, O. Melton, D. Angel, B. Yuan *University of Delaware, USA*	**[O19.05] Quantitative relation between thickness and grafting density of temperature-responsive poly(*N*-isopropylacrylamide-*co*-acrylamide) grafted surfaces by synchrotron radiation ATR-FTIR using and spectroscopic ellipsometry** P. Sakulaue[1], T. Lertvanithphol[2], P. Eiamchai[2], W. Siriwatwechakul*[1], *[1]Thammasat University, Thailand, [2]National Electronics and Computer Technology, Thailand*	**[O20.05] Role of electron flux on plasma damage-free sputtering of ultrathin ITO contact layer on *p*-GaN for InGaN/GaN LEDs** T.K. Kim*, K.J. Son, Y.J. Cha, J.S. Kwak, *Sunchon National University, Republic of Korea*	**[O21.05] Electromigration in Sn film** W.Z. Hsieh[1,2], C.H. Yang*[1], C.Y. Lee[1], P.T. Lee[1,3], C.E. Ho[1], *[1]Yuan Ze University, Taiwan, [2]National Synchrotron Radiation Research Center, Taiwan, [3]National Taiwan University, Taiwan*	**[O22.05] Surface pretreatment prior to PVD coating of facade glass by blasting with solid carbon dioxide** E. Uhlmann[1], R. Jaczkowski*[1], R. Domnick[2], *[1]Technische Universität Berlin, Germany, [2]Ara-Coatings GmbH & Co. KG, Germany*
16:20-18:20	Refreshment Break & Poster Session 2 | Ground Floor Galleries				
19:00-22:00	Conference Dinner (Optional Ticketed Event) | Domus Comeliana				
Thursday 20 June 2019					
Room Chair	Auditorium Mario Rocca				
08:30-09:30	**[PL04] Understanding nanomaterial synthesis and structure with nonequilibrium laser processing and in situ diagnostics** David B. Geohegan, *Oak Ridge National Laboratory, USA*				
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Galilei Hall	Room C
09:40-11:00	**Session 23: Semiconductors – Surface and Interface II** Session Chair: Chris McConville	**Session 24: Surface Engineering and Functionalization III** Session Chair: James Whitten	**Session 25: Environmentally-friendly Materials** Session Chair: Yang Shen	**Session 26: Surface Nanotechnology and Devices II** Session Chair: Marta Alves	**Session 27: Functional Surfaces and Coatings VI** Session Chair: Tadahiro Komeda
09:40-10:00	**[KN16] Surface and interface chemistry in next-generation solar cells** Wendy R Flavell, *The University of Manchester, UK*	**[O24.01] The mechanism of carbon element diffusion and the microstructural evolution of gradient hard nano crystalline coating by**	**[KN17] Why electrolytes control the catalytic activity** Aliaksandr Bandarenka, *Technische Universität München, Germany*	**[O26.01] Thermophysical properties of gold in a wide range of pressure and temperature including the critical region**	**[O27.01] Application of laser shock peened coated WC/Co tools for machining of titanium alloy using**

		supersonic fine particles bombarding J.N. Liu*, X.F. Cui, G. Jin, Y.B. Chen, E.B. Liu, *Harbin Engineering University, China*		A.V. Mazhukin*[1,2], M.M. Demin[1], A.A. Aleksashkina[1], V.I. Mazhukin[1,2], [1]*Keldysh Institute of Applied Mathematics of RAS, Russia,* [2]*National Research Nuclear University MEPhI, Russia*	**functionally modified nanofluids** S. Mishra*, S. Ghosh, S. Aravidan, *IIT DELHI, India*
10:00-10:20		**[O24.02] Investigation on surface and subsurface analysis during grinding of silicon nitride utilizing MoS_2-WS_2 hybrid nanofluid** A. Kumar*, S. Ghosh, S. Aravindan*, IIT Delhi, India*		**[O26.02] Laser synthesis of nanocomposites for laser additive manufacturing** S. Barcikowski[1], T. Hupfeld[1], R. Streubel[1], M. Schmidt[2], J.H. Schleifenbaum[3], B. Gökce[1], M.I. Kusoglu*[1], [1]*University of Duisburg-Essen, Germany,* [2]*University of Erlangen-Nuremberg, Germany,* [3]*RWTH Aachen University, Germany*	**[O27.02] Features of chromium deposition by hot target magnetron sputtering** D. Sidelev*[1], V. Grudinin[1], G. Bleykher[1], M. Bestetti[1,2], V. Krivobokov[1], [1]*Tomsk Polytechnic University, Russia,* [2]*Politecnico di Milano, Italy*
10:20-10:40	**[O23.01] Effect of deposition thickness on optoelectronic properties of NiO/TiO_2 pn heterojunction solar cells** K. Ukoba*, T.C. Jen, *University of Johannesburg, South Africa*	**[O24.03] Effect of ion Ar irradiation from ICP discharge on titanium surface topology.** M.M. Kharkov*[1], A.V. Kaziev[1], D.V. Daniliuk[1], M.S. Kukushkina[1], A.V. Tumarkin[1], N.A. Chernyh[2], [1]*National Research Nuclear University MEPhI, Russia,* [2]*Institute of Microbiology named after S.N. Vinogradsky FRC Biotechnology of the RAS, Russia*	**[O25.01] Synthesis and characterization of bionic starch-based adhesives** J. Xu, *JiangNan University, China*	**[O26.03] Laser-driven surface engineering of nanoparticle arrays for therapeutic drug monitoring** P.M. Ossi, *Politecnico di Milano, Italy*	**[O27.03] Molybdenum boride and vanadium carbide based hard coatings produced by laser cladding** J. Leunda*, C. Soriano, *IK4-Tekniker, Spain*
10:40-11:00	**[O23.02] Low-temperature and highly enhanced NO_2 sensing performance of Au-functionalized WO_3 microspheres with a hierarchical nanostructure**	**[O24.04] Surface treatments for improving the high temperature oxidation resistance of Ti-Beta 21S alloy for aerospace applications**	**[O25.02] Encapsulation of environmentally-friendly biocides in silica nanosystems for multifunctional coatings** L. Ruggiero*[1], F. Bartoli[1], M.R. Fidanza[1], F. Zurlo[2],	**[O26.04] Transition Metal compounds as active materials for supercapacitor applications: Trends, opportunities and flaws**	**[O27.04] Wetting behavior of ABS surfaces modified by chemically improved laser textures** E. Rodriguez-Vidal*[1], C. Sanz[1], V. Alonso[1], A. Retolaza[1],

	Y. Shen*, S. Zhao, C. Han, D. Wei, Z. Guan, *Northeastern University, China*	A. Kanjer[1], M.C. Marco de Lucas*[1], L. Lavisse[1], P. Peyre[2], C. Gorny[2], P. Berger[3], A. Tidu[4], C. Shuman[4], M. François[5], V. Optasanu[1], *[1]UMR 6303 CNRS-Université Bourgogne Franche-Comté, France, [2]HESAM Université, France, [3]Université Paris-Saclay, France, [4]LEM3-UMR-CNRS 7239, France, [5]Université de Technologie de Troyes, France*	G. Caneva[1], E. Di Bartolomeo[2], T. Gasperi[1], M.A. Ricci[1], A. Sodo[1], *[1]Università degli Studi "Roma Tre", Italy, [2]Università di Roma Tor Vergata, Italy*	M.F. Montemor *Instituto Superior Tecnico, Portugal*	R. Malet[2], *[1]IK4-TEKNIKER, Spain, [2]Elix Polymers, Spain*
11:00-11:30	Refreshment Break | Ground Floor Galleries				
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Galilei Hall	Room C
11:30-12:50	**Session 23: Semiconductors – Surface and Interface II (cont.)** Session Chair: Chris McConville	**Session 24: Surface Engineering and Functionalization III (cont.)** Session Chair: James Whitten	**Session 28: Semiconductors – Surface and Interface III** Session Chair: Alfredo Juan	**Session 29: Semiconductors – Surface and Interface IV** Session Chair: Andrew Teplyakov	**Session 27: Functional Surfaces and Coatings VI (cont.)** Session Chair: Tadahiro Komeda
11:30-11:50	**[O23.03] Design of Au@WO_3 core−shell structured nanospheres for ppb-level NO_2 sensing** S. Zhao*, Y. Shen, Z. Guan, D. Wei, C. Han, L. Jia, *Northeastern University, China*	**[O24.05] Micro-spiked mesoporous silicon formed by UV picosecond laser irradiation** N. Semmar*, A. Talbi, M. Mikikian, A. Stolz, A. Melhem, *University of Orleans/CNRS, France*	**[O28.01] Kinetic growth and surface faceting of vertical micro- and nano-structures: theory and experiments** M. Albani[1], M. Salvalaglio[2], R. Bergamaschini*[1], L. Miglio[1], F. Montalenti[1], *[1]University of Milano-Bicocca, Italy, [2]Technische Universität Dresden, Germany*	**[O29.01] Effect of laser annealing on chemical nature and dopant redistribution in P-doped Si films** H-Y. Ryu*, M. Lee, H. Park, D-H. Ko, *Yonsei University, Republic of Korea*	**[O27.05] Structural and phase inhomogeneity at the substrate-coating interface, as a factor determining the value of the macrostresses in the coatings and their hardening when applied to various substrates** I. Blinkov, V. Sergevnin*, A. Chernogor, D. Belov, A. Volkhonskii, *National University of Science and Technology "MISIS", Russia*
11:50-12:10	**[O23.04] Surface defect states in CdTe epitaxial layers** T. Wosinski*, K. Wichrowska, Z. Tkaczyk, V. Kolkovsky, G. Karczewski, *Institute of Physics, Polish Academy of Sciences, Poland*	**[O24.06] Enhancing gamma radiation resistant property of polysulfone membrane with carboxylated nanodiamond** A. Bedar*[1,2], P.K. Tewari[1], R.C. Bindal[1,2], S. Kar[1,2], *[1]Homi Bhabha National Institute, Mumbai, India, [2]Bhabha*	**[O28.02] Coulomb screening induced by electrons trapped on interface of InAs/InGaAs quantum dots** S. Golovynskyi*[1,2], O. Datsenko[3], L. Seravalli[4], G. Trevisi[4], P. Frigeri[4], I. Babichuk[1,2], I. Golovynska[1], B.K. Li[1], J. Qu[1], *[1]Shenzhen*	**[O29.02] Chemical (in)stability of an interface between metals and Bi_2Se_3 topological insulator** K. Ferfolja*, M. Fanetti, S. Gardonio, M. Valant, *University of Nova Gorica, Slovenia*	**[O27.06] Microstructure and phase evolution of silica molds after heat treatment** K. Roa Bohórquez*[1,3], F. Trejo Zárraga[1], E. Vera López[3], G. Peña Rodríguez[2], *[1]Centro de Investigación en Ciencia Aplicada y Tecnología Avanzada, Mexico,*

		Atomic Research Centre, Mumbai, India	*University, China, [2]Institute of Semiconductor Physics, Ukraine, [3]Taras Shevchenko National University of Kyiv, Ukraine, [4]Institute of Materials for Electronics and Magnetism, Italy*		*[2]Universidad Francisco de Paula Santander, Colombia, [3]Universidad Pedagógica y Tecnológica de Colombia, Colombia*
12:10-12:30	**[O23.05] Subsurface diffusion in crystals** S. Kosolobov, *Skolkovo Institute of Science and Technology, Russia*		**[O28.03] Effect of molten-salt treatment in KNO_3 on K-doped ZnO semiconductor thin films** S. Guan*, X. Zhao, *Tokyo University of Science, Japan*	**[O29.03] A multi-scale, combined approach to investigate excimer laser effects on ZnO nanorods properties** I. Carlomagno*[1], I. Lucarini[2], G. Di Filippo[2], V. Secchi[2], L. Maiolo[3], *[1]Elettra Sincrotrone Trieste, Italy, [2]Università Roma Tre, Italy, [3]CNR-IMM Roma, Italy*	**[O27.07] Multifunctional properties of cerium-based coatings** B. Williams, L. Nahar, D. Galeano-Osorio, S. Vargas-Giraldo, C.E. Castano*, *Virginia Commonwealth University, USA*
12:30-12:50	**[O23.06] The evolution of strain and microstructural properties of in-situ phosphorus-doped $Si_{1-x}C_x$ films under thermal treatment** M. Lee*[1], S-W. Kim[1], H. Jang[1], D-H. Ko[1], H-J. Lee[1,2], *[1]Yonsei University, Republic of Korea, [2]Sungkyunkwan University, Republic of Korea*	**[O24.08] Laser deposition of titanium oxide wear-resistant coatings on ti-6Al-4V alloy** M. Lu*[1], Y. Zhao[1], D. Hrstich[1], C. Graymore[1], L. Markovic[1], P. McCormick[2], H. Huang[1], *[1]The University of Queensland, Australia, [2]University of Western Australia, Australia*	**[O28.04] Elastic scattering of soft x-rays on anisotropic organic films for molecular electronics** R. Capelli*[1,2], A. Verna[2], N. Mahne[3], S. Nannarone[2], L. Pasquali[1,4], *[1]University of Modena e Reggio Emilia, Italy, [2]CNR-IOM, Italy, [3]Università di Rome Tre, Italy, [4]University of Johannesburg, South Africa*	**[O29.04] Phase-field modelling of compositional segregation during the growth of core-shell nanowires** R. Bergamaschini*, M. Albani, F. Montalenti, L. Miglio, *University of Milano-Bicocca, Italy*	**[O27.08] Study of corrosion resistance and self-healing behavior of environmentally-friendly as chromate free conversion coatings on aviation magnesium alloy** S.Y. Jian*[1], C.Y. Yang[1], J.K. Chang[2], *[1]National Defense University, Taiwan, [2]National Taiwan University, Taiwan*
13:00-13:30	Closing Session | Auditorium				
13:30-14:30	Lunch | Ground Floor Galleries				
14:30-16:00	**[WK] Workshop: How to get published in a scientific paper and how to be a good reviewer** Carina Arasa Cid, Publisher, Physics, *Elsevier, The Netherlands*				