

iPlasmaNano-X
September 15-20, 2019
Plava Laguna
Poreč Croatia

<http://iplasmanano2019.com/>

Keynote: 40 min including questions

IT: 30 min including questions (25+5 min)

Short talks: 15 min including questions (12+3 min)

Poster Session:

**The posters will be presented throughout the whole conference in the conference hall.
The format of the posters is A0 Portrait**

Sunday 15-Sept		
14:00	Reception-registration	
17:00 – 17:15	CONFERENCE OPENING CEREMONY & OPENING SESSIONS Welcome: E. Kovacevic, J. Berndt, U. Cvelbar Chair: Eva Kovacevic	
17:15 – 17:55	S-1	K. Koga <i>Faculty of Information Science and Electrical Engineering, Kyushu University, Japan</i> <i>Center for Novel Science Initiatives, National Institutes of Natural Sciences, Japan</i> Time of Flight Size Control of Nanoparticles in Reactive Plasmas
17:55 – 18:25	S-2	J. G. Eden <i>Department of Electrical and Computer Engineering, University of Illinois, Urbana, IL</i> <i>61801, USA</i> Electromagnetic (MM-wave) and nanofabrication applications of microcavity plasmas
18:25 – 18:55	S-3	Z. Lj. Petrović <i>Institute of Physics, University of Belgrade POB 68 11080 Zemun Serbia, Serbian</i> <i>Academy of Sciences and Arts, Knez Mihailova 35, 11001 Belgrade, Serbia</i> Global Model and Diagnostics of an Atmospheric Pressure Plasma Jet in Mixtures of Helium and Water Vapour
19:15	WELCOME DRINK & DINNER	

Monday 16-Sept		
Chair: Johannes Berndt		
9:00 – 9:30		R. van de Sanden <i>DIFFER, P.O. Box 6336, 5600 HH Eindhoven, The Netherlands</i> <i>Department of Applied Physics, Eindhoven University of Technology, Eindhoven, The Netherlands</i> Recent trends in renewable energy driven chemistry for energy conversion and storage: plasma chemistry as the special case
Session M1 NANOPARTICLES		
9:30 – 10:00	M1-1	H. Biederman <i>Department of Macromolecular Physics, Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic</i> Low Pressure Plasma-based Formation of Heterogeneous Nanoparticles
10:00 – 10:30	M1-2	T. Strunskus <i>Chair for Multicomponent Materials, Kiel University, Germany</i> Application of UV light and X-rays to the analysis of nanoparticles created in a plasma
10:30 – 11:00	coffee break & poster session	
11:00 – 11:30	M1-3	T. Belmonte <i>Institut Jean Lamour CNRS&Université de Lorraine, Nancy, France</i> Metastability: the ultimate virtue of nanoparticles?
11:30 – 11:45	M1-4	N. Krstulović <i>Institute of Physics, Zagreb, Croatia</i> Synthesis, analysis and applications of nanoparticles prepared by laser ablation in liquids
11:45 – 12:00	M1-5	J. Zavašnik <i>Jožef Stefan Institute, Jamova 39, 1000 Ljubljana, Slovenia</i> In-situ TEM synthesis of NPs with ionic liquids
12:00 – 14:30	LUNCH AND BREAK	
Chair: Thomas Strunskus		
14:30 – 15:00	M1-6	M. Santos <i>The University of Sydney, NSW 2006, Australia</i> Controlled Synthesis of Nanoparticles in Dusty Plasmas for Applications in Nanomedicine
15:00 – 15:30	M1-7	A. Choukourov <i>Department of Macromolecular Physics, Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic</i> Functionalized Plasma Polymer Nanoparticles
Session M2 PLASMAS&LIQUIDS		
15:30 - 16:00	M2-1	T. Ohta <i>Department of Electrical and Electronic Engineering, Meijo University, Japan</i> Synthesis of nano-materials using gas-liquid interfacial plasma
16:00 – 16:30	coffee break& poster session	
Chair: Thierry Belmonte		
16:30 – 17:00	M2-2	E. Robert <i>GREMI, UMR7344 CNRS-Université d'Orléans, BP 6744 45067 Orléans Cedex 2, France</i> Plasma generation using Plasma Gun above or inside liquid solutions

17:00 – 17:30	M2-3	M. Sunkara <i>Conn Center for Renewable Energy Research and Chemical Engineering, University of Louisville, Louisville, KY 40292</i> Plasma-molten metal and/or liquid interactions for materials processing
17:30 – 18:00	M2-4	F. Endres <i>Clausthal University of Technology Institute of Electrochemistry, ClausthalZellerfeld</i> Plasma Electrochemistry with Ionic Liquids
Session M3 PLASMA CATALYSIS & MATERIAL TREATMENT		
Chair: Alexei Nefedov		
18:00 – 18:30	M3-1	A. Bogaerts <i>Research group PLASMANT, Department of Chemistry, University of Antwerp, Universiteitsplein 1, BE-2610 Wilrijk-Antwerp, Belgium</i> Computer modeling for answering burning questions in plasma catalysis
18:30 – 19:00	M3-2	S. Spirk <i>Graz University of Technology, Institute of Paper-, Pulp- and FibreTechnology (IPZ), Inffeldgasse 23, 8010 Graz, Austria</i> Plasma treatment for cellulosic materials
19:30	DINNER	
Tuesday 17-Sept		
Session T PEGASUS DAY: GRAPHENE & CARBONS		
Chair : Elena Tatarova		
9:00 – 9:05		E. Tatarova Welcome to Pegasus Day
9:05 – 9:45	T-1	M. Hori <i>Center for Low-temperature Plasma Sciences, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, Japan</i> Challenge of Plasma Nanoprocesses for Industry and Life Innovations
9:45 – 10:15	T-2	A. Nefedov <i>Institute of Functional Interfaces, Karlsruhe Institute of Technology, 76344 Eggenstein-Leopoldshafen Germany</i> Vertically oriented carbon nanostructures
10:15 – 10:45	T-3	W. Bodnar <i>Leibniz Institute for Plasma Science and Technology, Felix-Hausdorff-Str. 2, 17489 Greifswald, Germany</i> Graphene-related carbon nanoparticles synthesized from a liquid isopropanol precursor in an one-step atmospheric plasma process
10:45 – 11:15	coffee break & poster session	
11:15 – 11:45	T-4	C. Corbella <i>Dept. Mechanical & Aerospace Engineering, George Washington University, DC, United States of America</i> Synthesis of Nanomaterials by Pulsed Anodic Arc Discharge
11:45 – 12:15	T-5	L. Zajíčková <i>CEITEC and Faculty of Science, Masaryk University, Brno, Czech Republic</i> Carbon Nanotubes Functional Devices Prepared by Plasma and Other Dry Gas-Phase Methods
12:15 – 14:30	LUNCH AND BREAK	
Chair: Uroš Cvelbar		
14:30 – 15:10	T-6	E. Tatarova <i>Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal</i>

		Microwave Plasmas Applied for Graphene Based Hybrid Nanostructures Synthesis
15:10 – 15:30	T-7	A.Dias <i>Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal</i> Microwave plasma synthesis of graphene-metal oxides nanocomposites
15:30 – 16:00	T-8	A. Almeida <i>Centre of Physics and Engineering of Advanced Materials, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal</i> Structural characterization of N-graphene/Mn oxide nanocomposites synthesized by microwave plasmas
16:00 – 16:30	coffee break& poster session	
Chair: NikšaKrstulović		
16:30 – 17:00	T-9	E. Valcheva <i>Faculty of Physics, Sofia University, 1164, Sofia, Bulgaria</i> Electrical Transport in Microwave Plasma Fabricated Free-standing N-Graphene Sheets at Low Temperatures
17:00 – 17:15	T-10	D. Tsyganov <i>Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa, 1049 – 001 Lisboa, Portugal</i> N-graphene formation applying atmospheric microwave plasma: theoretical analysis
17:15 – 17:30	T-11	N. Bundaleska <i>Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa, 1049 – 001 Lisboa, Portugal</i> N-graphene synthesis – direct microwave plasma method
17 :30 – 18 :00	T-12	D. Marić <i>Institute of Physics, University of Belgrade, Belgrade, Serbia</i> Breakdown and Discharges in Low-Pressure Alcohol Vapors
18:00 – 18:30	T-13	E. Felizardo <i>Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa, Portugal</i> Vacuum Ultraviolet and Extreme Ultraviolet Spectroscopy of Surface Wave Discharges
18:30 – 19:00	T-14	J. Henriques <i>Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal</i> Vacuum Ultraviolet Radiation Emitted by Microwave Argon Plasmas
19:00	DINNER	
Wednesday 18-Sept		
Session W ENERGY, DIAGNOSTIC, THRUSTERS		
Chair: Gary J. Eden		
8:30 – 9:00	W-1	R. Boswell <i>Space Plasma Power and Propulsion Laboratory Centre for Plasmas and Fluids, RSPE Australian National University, Canberra, ACT, Australia</i> Quo Vadis Plasma
9:00 – 9:30	W-2	D. Ružić <i>Center for Plasma Material Interactions, Department of Nuclear, Plasma and Radiological Engineering, University of Illinois at Urbana-Champaign, Urbana IL, 61801 USA</i> Femtosecond Laser Texturing at Multiple Wavelengths
9:30 – 10:10	W-3	H. Kersten

		<i>Institute for Experimental and Applied Physics, Kiel University, Kiel, Germany</i> Surface modification and nanostructuring of highly porous 3D networks by plasma treatment
10:10 – 10:40	W-4	C. Charles <i>Laboratory, Research School of Physics, The Australian National University, Canberra, ACT 2601, Australia</i> Pocket Rocket electrothermal plasma thruster status
10:40 – 11:10	coffee break & poster session	
11:10 – 11:40	W-5	M. J. Gordon <i>Dept. of Chemical Engineering, Solid State Lighting and Energy Electronics Center (SSLEEC), University of California, Santa Barbara, USA</i> OES imaging and Langmuir probe studies of DC and RF flow-through microplasma jet sources
11:40 – 12:10	W-6	J. L. Walsh <i>Centre for Plasma Microbiology, Department of Electrical Engineering and Electronics, University of Liverpool, L69 3GJ, United Kingdom</i> Turbulence and entrainment in plasma jets
12:10 -12:40	W-7	M. Momčilović <i>Institute of Nuclear Sciences Vinca, University of Belgrade, Belgrade, Serbia</i> Laser Induced Breakdown Spectroscopy (LIBS): An alternative approach
12:40 – 14:30	LUNCH	
15:00 – 23:00	EXCURSION : Magic Istria and the truffle road & GALA DINNER in Rovinj	
Thursday 19-Sept		
Session Th1 PLASMA SURFACE INTERACTION: FROM ETCHING TO COATINGS		
Chair: Masaru Hori		
9:00 – 9:30	Th1 – 1	M. Vuković <i>TEL Technology Center America, LLC, USA</i> Moore's law and the evolution of plasma etch equipment and process
9:30 – 10:00	Th1 – 2	K. P. Giapis <i>Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, USA</i> Dynamic Chemistry in Plasma-Surface Interactions
10:00 – 10:30	Th1 – 3	J. Beckers <i>Department of Applied Physics, Eindhoven University of Technology, P.O. Box 513, 5600MB Eindhoven, The Netherlands</i> EUV-induced plasma in nanolithography
10:30 – 11:00	coffee break & poster session	
11:00 – 11:30	Th1 – 4	A. Barranco <i>Consejo Superior de Investigaciones Científicas, Instituto de Ciencia de Materiales de Sevilla (CSIC-US) c/Américo Vespucio 49, Sevilla, E-41092, Spain</i> Encapsulation of perovskite solar cells and supported nanostructures by ultrathin plasma polymers
11:30 – 12:10	Th1 – 5	J. G. Han <i>School of Advanced Materials Science and Engineering, Center for Advanced Plasma Surface Technology (CAPST), NU-SKKU Joint Institute for Plasma Nano Materials (IPNM), Sungkyunkwan University, Suwon 440-746, South Korea</i> Novel design and control of thin film nucleation and growth by 3D magnetic field control in magnetron sputtering
12:10 – 14:30	LUNCH	

Chair: Andrey Choukourov		
14:30 – 15:00	Th1 – 6	F. Faupel <i>Chair for Multicomponent Materials, Faculty of Engineering, Kiel University, Kaiserstr. 2, 24143 Kiel, Germany</i> Recent advances in tailoring functional particulate and layered nanocomposites
15:00 – 15:30	Th1 – 7	S. Radovanov <i>Applied Materials / Varian BU, Gloucester, Massachusetts, United States of America</i> RF and DC sources capabilities for precision material modification and ion implantation
15:30 – 16:00	Th1 – 8	A. Borras <i>Nanotechnology on Surfaces Lab, Materials Science Institute of Seville / Consejo Superior de Investigaciones Cientificas (CSIC), Spain</i> One-reactor fabrication of supported 3D nanomaterials: first steps towards the all-in-one solution for the fabrication of self-powering systems and multisource energy scavengers
16:00 – 16:30	coffee break & poster session	
16:30 – 17:00	Th1 – 9	J. P. Borra <i>LPGP CNRS, Paris-Sud University & Paris-Saclay Univ (UMR 8578), @Centrale-Supélec, F91405 France</i> Plasma-based aerosol processes for composite core-shell nanoparticles and thin films: post-discharge condensation for nanoscale polymer and inorganic coatings
17:00 – 17:30	Th1-10	A. Anselmo <i>Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Albert-Einstein-Str. 15 12489 Berlin, Germany</i> CALIPSOplus – a gateway for research at light sources
Session Th2 PLASBIOSENS SESSION: BIOLOGY & BIOSENSING		
Chair: Eva Kovacevic		
17:30 – 18:00	Th2-1	K. Makasheva <i>LAPLACE, Université de Toulouse, CNRS, UPS, INPT, Toulouse, France</i> Plasma-based synthesis of multifunctional thin dielectrics: probing the interaction of silver nanoparticles with DsRed proteins
18:00 – 18:30	Th2-2	V. Shvalya <i>Jožef Stefan Institute, Ljubljana SI-1000, Slovenia, EU</i> Exploring Performance of Highly Robust Au/Pd Plasmonic Substrates for Biosensing with SERS
18:30 – 19:00	Th2-3	K. Takahashi <i>Faculty of Electrical Engineering and Electronics, Kyoto Institute of Technology, Japan</i> Bio-applications of water mist in plasmas as a form of dusty plasmas
19:00 – 19:30	Special Talk	K. Ken Ostrikov <i>Convenor – iPlasmaNano conference series Queensland University of Technology (QUT) and CSIRO-QUT Joint Sustainable Processes and Devices Laboratory Brisbane, QLD 4000, Australia</i> Clean future: what can plasma do for you?
19:00	DINNER	
Friday 20-Sept		
Session F		
Chair: Zoran Lj. Petrović		
9:00 – 9:30	F-1	D. Pai <i>Institut Pprime (CNRS UPR 3346 – Université de Poitiers – ISAE-ENSMA), 11</i>

		<i>boulevard Marie et Pierre Curie, F-86962 Futuroscope Chasseneuil, France</i> In-situ OES and Raman spectroscopy related to nanostructuration by atmospheric-pressure plasmas
9:30 – 9:45	F-2	M. Košček <i>Jožef Stefan Institute, Jožef Stefan International Postgraduate School, Ljubljana, Slovenia</i> Phase transformations in copper oxide nanowires
9:45 – 10:00	F-3	M. Rakić <i>Institute of physics, Zagreb, Croatia; University of Illinois at Urbana-Champaign, USA</i> Laser resonators with nanoparticles gain medium for new laser profiles and optical logic gates
10:00 – 10:30	coffee break	
10:30 – 11:00	F-4	S. Dujko <i>Institute of Physics, University of Belgrade, Pregrevica 118, 11080 Belgrade, Serbia</i> Electron transport in C ₂ H _x gases (x = 2, 4 and 6) in DC and RF fields
11:00-11:30	F-5	M. Mičetić <i>Ruđer Bošković Institute, Zagreb, Croatia</i> Preparation and basic properties of Ge quantum dot lattices in amorphous Al ₂ O ₃ , Si ₃ N ₄ and SiC matrices
11:30	CLOSING CEREMONY	