

program of the 2 day workshop: "Plasma Science & Entrepreneurship"

Program Morning 02 November 2020

09.00	Welcome & Opening by Chair(s) Achim von Keudell and Guus Pemen & Program Director Hugo de Haan
9.20-9.50	Keynote Erik C. Neyts , Plasma Catalysis
9.50-10.10	Break
	Plasma Conversion CO2 Moderator: x
10.10-10.30	(19) Hyun-Ha Kim , <i>AIST, Japan</i> , "Interaction of Nonthermal Plasma with Catalyst: A struggle for breakthrough"
10.30-10.50	(38) Xin Tu , <i>University of Liverpool, UK</i> , "Plasma-enhanced Catalysis: An Emerging Technology for CO2 Conversion" (will present via Zoom)
10.50-11.10	(27) Floran Peeters , <i>Differ, Eindhoven, The Netherlands</i> , "Sustainable chemistry using electricity: the potential for plasma"
11.10-11.30	Coffee Break
	Plasma Conversion, Plasma Catalysis Moderator: x
11.30-11.50	(31) Ante Hecimovic , <i>Max-Planck-Institut für Plasmaphysik, Garching, Germany</i> , "Microwave plasmas for CO2 conversion into value added chemicals and fuels"
11.50-12.10	(08) Lucia Daniela Pietanza , <i>CNR ISTP, Bari, Italy</i> , "Self-consistent vibrational and electron kinetics in CO2 plasma discharges"
12.10-12.30	(35) Yue Liu , <i>Brandenburg University of Technology Cottbus-Senftenberg, Germany</i> , "Investigations of He/O2 micro atmospheric pressure plasma jets based on a hybrid model" (postdoctoral of Thomas Mussenbrock)
12.30-12.50	(09) Vasco Guerra , <i>Universidade de Lisboa, Portugal</i> , "Vibrational kinetics in CO2 plasmas: checks and balances"
13.00-14.00	Lunch

Program Afternoon 02 November 2020

	Plasma Conversion Moderator: x	Nanoparticles Moderator: x
14.00-14.20	(03) Anton Nikiforov , <i>Department of Applied Physics, Ghent University, Belgium</i> , "Nitrogen fixation in conditions of non-thermal electrical discharges" (only 2 Nov)	(34) Nikolay Britun , <i>Nagoya University, Japan</i> , "Overview of the ground state particle imaging in pulsed sputtering discharges" (remote)
14.20-14.40	Judith Golda , <i>Ruhr-University Bochum</i> , "Energy balance tailoring in atmospheric pressure plasma discharges"	(13) Jan Benedikt , <i>Kiel University, Kiel, Germany</i> , "Atmospheric pressure plasmas for controlled generation of passivated silicon nanocrystals"
14.40-15.00	06) Chloé Fromentin (PhD-student), <i>Universidade de Lisboa, Portugal</i> , "Kinetic mechanisms in CO2-O2"	(17) Thierry Belmonte , <i>univ-lorraine.fr</i> , "Nanoparticles and thermodynamics: From prediction to illusion"

	plasmas: Development of a reaction mechanism”	
15.00-15.20	(22) Thomas Gries, CNRS, Université de Lorraine, Nancy, France, “Enhanced photocatalytic properties of nanostructured metal oxide films by plasma afterglow treatments”	(25) Dominique Debarnot, CNRS, Le Mans Université, France, “Affinity and distribution of metal nanoparticles within plasma polymer matrices
15.20-15.50	Coffee Break	

Program Afternoon 02 November 2020 continued

	Plasma and Liquids Moderator: x	Plasma Sources and Diagnostics Moderator: x
15.50-16.10	(14) Milan Simek, Institute of Plasma Physics of the Czech Academy of Sciences, Prague, Czech Republic, “High time- and spatial-resolution studies of nanosecond discharges in liquid water”	(32) Svetlana Starikovskaia, Laboratory of Plasma Physics (CNRS), Palaiseau, France, “Nanosecond discharges, from 0.001 to 10 eV/molecule: applications and diagnostics”
16.10-16.30	(10) Daan Schram, Eindhoven University technology, The Netherlands, “The effectivity of plasma creation and radicals to activate water”	(11) Tomas Hoder, Masaryk University, Brno, Czech Republic, “New insights into barrier discharges”
16.30-16.50	(16) Fiorenza Fanelli, Institute of Nanotechnology (NANOTEC), National Research Council (CNR), Italy, “Atmospheric pressure plasma surface modification of polymer foams for water remediation”	(48) Wolfgang Breilmann, Ruhr Uni Bochum, Germany, “High Power Impulse Magnetron Sputtering”
16.50-17.10	(49) Laura Chauvet, Ruhr Universität Bochum, Germany, “Water chemistry induced by nanosecond pulsed plasmas”	(15) Luca Matteo Martini, University of Trento, Italy, “Advances in optical diagnostics in non-equilibrium discharge plasmas”
17.10-17.30	(21) Gérard Henrion, Université de Lorraine, CNRS, Nancy, France, “Playing with the current waveform: a way to improve the efficiency of the plasma electrolytic oxidation (PEO) process”	(46) Jeroen van Oorschot, Eindhoven University of Technology, The Netherlands, “Development of a flexible pulse shape solid-state-Marx generator for PAW generation”
17.30-17.50	Stephane Lucas, Innovative Coating Solutions (ICS) & University of Namur, Namur, Belgium, “Adding advanced functional properties to nanoparticles via low-pressure plasma coating: from battery to paint applications”	G.J. van Rooij, Maastricht University, The Netherlands, “Electrification and circularity - a plasma chemistry perspective”
17.50-18.30	ISC Steering Committee Meeting	

Program Morning 03 November 2020

	Thermal Plasmas Moderator: x	Plasma Synthesis & Coatings Moderator: x
09.00-09.20	(41) Masaya Shigeta , <i>Joining and Welding Research Institute, Japan</i> , “Modelling and Simulation of Turbulent Thermal Plasma Flows for Nanopowder Mass Production”	(24) Mineo Hiramatsu , <i>Meijo University, Japan</i> , “Vertical Graphene Network: Synthesis and Applications”
09.20-09.40	(04) Margarita Baeva , <i>Leibniz Institute for Plasma Science and Technology, Greifswald, Germany</i> , “Arcs of short length between copper electrodes – challenges in their modelling and diagnostics”	(33) Gerrit Wulf , <i>Fraunhofer IFAM, Germany</i> , “Co-polymerization of organic and siloxane mixtures using atmospheric pressure plasma to prevent plasticizer leaching from PVC”
09.40-10.00	(44) Anthony Murphy , <i>CSIRO Manufacturing, Australia</i> , “Development of Arc Welding Software for Industrial Use”	(40) Robert Franz , <i>Montanuniversität Leoben, Austria</i> , “Characterisation of plasma and surface modification of multi-element arc cathodes for coating deposition”
10.00-10.20	(47) Yasunori Tanaka , <i>Kanazawa University, Japan</i> , “Numerical approach on high-production rate nanoparticle synthesis in pulse-modulated induction thermal plasmas	(43) Janith Weerasinghe , <i>Queensland University of Technology, Australia</i> , “Mask Free Copper Plating on Plastics via Micro Plasma Treatment for Flexible Electronic Applications”
10.20-10.50	Coffee Break	
	Film growth Moderator: x	Plasma Sources Moderator: x
10.50-11.10	(12) Kai Nordlund , <i>University of Helsinki, Finland</i> , “Crystal direction effects on sputtering” (I could come at least for Monday, regitrated for 1 day, possibly also both days)	(20) Pieter Leenders , <i>Aerox B.V., Vleuten, The Netherlands</i> , ““Aerox Cold Plasma Injection Technology for industrial odour control” : plasma technology developments 1995 – 2020.” Let op : ik(Hugo) ga Pieter de eerste dag rond 11.00 programmeren (booth)
11.10-11.30	(29) Marko Sturm , <i>University of Twente, Enschede, The Netherlands</i> , “Metal and metal oxide nanofilms exposed to reactive ions and radical species”	(07) Holger Heuermann , <i>University FH Aachen, Heuermann HF-Technik GmbH, Germany</i> , “Benefits of the Combination of a 3kW Microwave Plasma Jet with a Hot S-Parameter Measurement System for Plasma Applications”
11.30-11.50	(45) Ralf Duempelmann , <i>Inolytix Ltd, Switzerland</i> , “Characterization of flat or particulate surfaces by dynamic gas adsorption (IGC)”	(05) Gertjan Koster , <i>University of Twente, The Netherlands</i> , “Pulsed Laser Deposition oxide plasma plume dynamics and thin film characteristics”
11:50-12:00	Biobreak	
12.00-12.20	(51) Keun Su Kim , <i>National Research Council Canada and University of</i>	(30) Moritz Heintze , <i>TRUMPF, Germany</i> , “Industrialization of Plasma Technology:

	<i>Toronto, Canada, "Origin and reduction of BN impurities in boron nitride nanotube synthesis by high temperature plasma"</i>	Requirements for the Power Supplies When Moving to the 100 kW Range"
12.20-12:40	(23) Thierry Czerwiec, Jean Lamour Institute, Université de Lorraine, Nancy, France, "Wetting and evaporation on surfaces modified by plasma based technologies"	(37) Richard Engeln, Eindhoven University of Technology, The Netherlands, "Vibrational kinetics of CO2 in non-thermal plasma" (life, 3 nov)
12:40-13:00	Sebastian Mohr, Quantemol Limited, London, UK, "Plasma chemistry data and chemistry set optimisation approach for ALD/ALE modeling"	Milad Rasouli, Kharazmi University, Tehran, Iran, "Plasma as a steroidogenesis inducer agent"
13.00-14.00	Lunch (when no ISC meeting time 14 th ; 13.45 meeting International Scientific Committee (ISC))	

Program Afternoon 03 November 2020

	Biomedical Plasma Medicine Moderator:
14.00-14.30	Keynote Michael Keidar , The George Washington University, Washington DC, "Adaptive Plasmas and Recent Development in Biomedical Application"
14.30-14.50	(28) Bernard Nisol, Molecular Plasma Group, Luxembourg, "Grafting of antiviral and antibacterial agents on personal protective equipment using MPG's cold atmospheric pressure plasma technology"
14.50-15.10	(42) Abraham Lin, PLASMANT, University of Antwerp, Belgium, "Cancer therapy with non-thermal plasma: modulation of the tumor and tumor microenvironment" (remote)
15.10-15.30	(50) Loic Ledernez, IMTEK, Albert-Ludwigs-University of Freiburg, Germany, "Atmospheric Pressure Plasma Jet for Dentistry" (I picked day 1 but which day I come or present doesn't matter to me.)
15.30-15.50	(39) Stefan G. Mayr, Leibniz Institute of Surface Engineering (IOM), University of Leipzig, Germany, "Energetic particle assisted synthesis of smart materials for biomedical applications"
15:50-16:10	Guus Pemen, Eindhoven University of Technology, The Netherlands, "Air purification with streamer corona plasma"
16.10-16.30	Plenary Closure