

## 8th Novemeber

8:30	<b>Registration</b>	
9:00	<b>Opening Moderators: O.Kylián, M. Šimek &amp; H. de Haan</b>	
9:20	<b>Keynote M. Mozetič Moderator: O. Kylián</b> Plasma activation of polymers – scientific aspects and industrial applications	
10:00	<b>Coffee break</b>	
	<b>Energy Moderator: M. Mozetič</b>	<b>Plasma &amp; Liquids Moderator: H. Kersten</b>
10:20	<b>T. Silva - on-line</b> The role of the CO(a) excited electronic state in CO <sub>2</sub> plasma-assisted decomposition. An experimental and modelling investigation	<b>Z. Bonaventura</b> Electron avalanching in nanovoids at the initial stage of nanosecond discharge in liquid water
10:40	<b>T. Belmonte - on-line</b> Ammonia as an energy vector: a transient way to support hydrogen?	<b>P. Lukeš</b> Oxychlorine chemistry promoted in saline solutions upon treatment by He/O <sub>2</sub> plasma
11:00	<b>P. Pleskunov</b> Plasma-assisted synthesis of tantalum oxynitride nanoparticles for photoelectrochemical water splitting	<b>K. Kutasi</b> Surface-wave microwave discharge: an efficient tool to deposit active species into liquids
11:20	<b>A. Mašláni</b> Pyrolysis of hydrocarbons in thermal plasma for hydrogen production without CO <sub>2</sub> emissions	<b>D. Nikitin</b> Gas aggregation cluster source as a tool of metal nanofluids preparation
11:40	<b>T. Homola</b> Recent developments in applications of plasma to the manufacture of flexible solar cells	<b>K. Wende - on-line</b> Cold plasma-driven biomolecule modifications - key or lock to effectiveness?
12:00	<b>Lunch</b>	
	<b>Atmospheric plasma &amp; Treatment Moderator: M. Černák</b>	<b>Nanomaterials &amp; Diagnostics Moderator: H. Biederman</b>
13:20	<b>M. Lopes</b> Atmospheric Plasma Solutions: From Idea to Industrial Production Lines	<b>N. Figueiredo</b> Highly stable LSPR sensing using thermally embedded Au nanoparticles in glass substrates
13:40	<b>O. Galmiz</b> Technology for nanofiber's substrates atmospheric pressure plasma treatment	<b>V. Stranak</b> Nanostructured ITO films as a transducer for electro-optically modulated sensors
14:00	<b>R. Krumpolec</b> Ultra-fast atmospheric plasma reduction-exfoliation of highly porous aerogel-like graphene oxide	<b>J. Kratochvíl</b> Gas-phase synthesized nanomaterials: from their design up to antimicrobial applications
14:20	<b>H. Kersten</b> Cleaning and surface treatment of daguerreotypes with plasma methods	<b>P. Bílek</b> Investigating atomic nitrogen production in nitrogen plasmas
14:40	<b>A. Waskow - on-line</b> Investigating the effect of non-thermal plasma treatment on Arabidopsis thaliana seeds	<b>P. Dvořák</b> Higher harmonic frequencies in a capacitively coupled plasma
15:00	<b>Coffee break</b>	
	<b>Plasma polymers &amp; Space Moderator: L. Zajičková</b>	
15:20	<b>D. Hegemann - on-line</b> From Research to Sustainable Applications: Plasma Coating on Recycled Polymers	
15:40	<b>T. Košutová</b> X-ray scattering methods for investigation of heterogeneous nanoparticles prepared by plasma-based techniques	
16:00	<b>D. Thiry - on-line</b> Investigating the relationship between the mechanical properties of plasma polymer-like thin films and their glass transition temperature	
16:20	<b>J. Kousal</b> LA-like films prepared by Plasma-Assisted Vapour Thermal Deposition: between classical and plasma polymers	
16:40	<b>M. Nesladek</b> Diamond Quantum Magnetometers: from the lab to the space	
17:00	<b>Poster's rapid presentation Moderator: O. Kylián</b>	
17:30	<b>Poster session &amp; Coffee</b>	
20:00	<b>Social evening</b>	

## 9th November

9:20	<b>Keynote M. Černák</b> <i>Moderator: M. Šimek</i> Recent advances in the application of plasma in textile finishing
10:00	<b>Coffee break</b>
	<b>Bio-applications &amp; Sputtering</b> <i>Moderator: P. Lukeš</i>
10:20	<b>I. Sremacki</b> Plasma-aerosol system: controlled RONS and UV flux for the safe wound healing and topical drug delivery
10:40	<b>L. Blahová</b> Cell behaviour on plasma-chemically prepared surfaces
11:00	<b>B. Kretzschmar - on-line</b> Antimicrobial CVD coatings deposited under ambient pressure conditions
11:20	<b>L. Zajíčková</b> Performance of translational and cold plasma jets in polypropylene treatment required for adhesive joints
11:40	<b>T. Kozák – on-line</b> Transport of ions and neutrals in high power impulse magnetron sputtering discharges studied by particle
12:00	<b>Lunch</b>
	<b>Nanomaterials &amp; Plasma processing</b> <i>Moderator: V. Stranak</i>
13:20	<b>M. Kormunda</b> Functionalization of electrospun nanofiber membranes by plasma processes
13:40	<b>A. Barranco - on-line</b> Ultraporous conformal nanostructures developed by plasma deposition and processing of metal phthalocyanines and porphyrins
14:00	<b>P. Solař</b> High resolution measurements of nanoparticle velocities and mass filtration using a mechanical time-of-flight filter
14:20	<b>H. Nizard - on-line</b> Gas phase aggregation and PECVD combined setup for the deposition of nanocomposite coatings on large size and flexible substrates
14:40	<b>M. Kubečka</b> Predictive multiscale simulation of reactive magnetron sputtering at industrial scale
15:00	<b>H. Biederman</b> Cylindrical post magnetron applied in novel gas aggregation cluster source
15:20	<b>Closing</b>

**Optional lab tours**

## POSTER PRESENTATION

- T. Egghe** Silanization of plasma polymerized hexamethyldisiloxane coatings with (3-aminopropyl)triethoxysilane and aging of the resulting coatings
- M. Godec** Surface Modification of Additive-Manufactured Metallic Materials by Plasma Nitriding
- A. Hanková** Plasma-assisted synthesis of vanadium and vanadium-oxide nanoparticle films
- M.E. Hassan** Investigation of the transport of gaseous H<sub>2</sub>O<sub>2</sub>, HNO<sub>2</sub>, NO<sub>2</sub>, and O<sub>3</sub> into the bulk water and the electrosprayed microdroplets
- H. Libenská** Cu nanoparticle production by FFE magnetron-based GAS
- J. Kelar** Plasma pretreatment of materials used for UV-Digital printing by means of atmospheric pressure plasma
- N. Khomiakova** Plasma-based metallization of textiles
- L. Kusýn** Sub-nanosecond spectra of pulsed argon plasma
- A. Kuzminova** Plasma-based synthesis of SERS-active nanostructures
- O. Mashchenko** Understanding of laser-nanoparticle interaction for MALDI-ToF mass spectrometry
- M. Pazderka** New robust current peak detection method for DBD
- D. Prokop** Electrical investigation of nanosecond-pulsed barrier discharge in argon
- K. Škorváňková** Mechanical time-of-flight filter for measurement of nanoparticle velocities exiting the plasma-based gas aggregation source
- L. Švandová** Characterization of electrical properties of Cr-doped alumina ceramics for dielectric barrier discharges