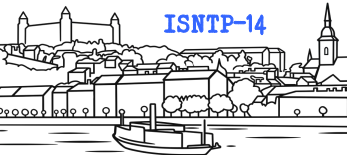
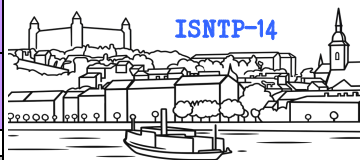


14th International Symposium on Non-thermal/Thermal Plasma for Pollution Control and Sustainable Energy (ISNTP-14)

TIME	MONDAY (September 28)	TUESDAY (September 29)	WEDNESDAY (September 30)	THURSDAY (October 1)
9 00	opening ceremony	I-04 chair: R. SNOECKX Vasco GUERRA Machine-learning-assisted mesoscopic modelling of plasma-surface reaction kinetics	I-06 chair: E. MAROTTA Petr LUKEŠ Plasma-liquid interfacial processes in advanced water treatment: From reactive species transport to scalable technologies	
15 30	I-01 chair: E. MOREAU Seiji KANAZAWA Spatiotemporal diagnostics of generation and transport of reactive species in AP discharge plasmas	O-14 Stein MAERIVOET Multidimensional modeling of non-oxidative coupling of methane to understand soot formation in and around the plasma	O-24 Zdenko MACHALA Various atmospheric air plasma sources for water treatment	chair: M. B. CHANG Keping YAN Ups and downs of NTP: Environmental applications ISNTP Achievement Award
45 30	O-01 Zuzana KOVAL'OVÁ Interaction of NaI solutions with atomic oxygen produced by atmospheric pressure He/O ₂ plasma jet	O-15 Vit JIRÁSEK 2-D modeling of hypochlorite formation in salt water treated by He/O ₂ RF microplasma jet	O-25 Eric MOREAU Plasma-driven liquid flows in surfactant solution: Influence of the high voltage frequency and surfactant concentration on flow regimes	
10 00	O-02 Yuki ISHII Relationship between electrode configuration and ionic wind reversal in plasma synthetic jet actuators	O-16 chair: Z. MACHALA Seunghoon LEE Combining plasma healthcare technology and artificial intelligence for treatment of immune diseases induced by environmental pollution	O-26 Kefeng SHANG Nitrogen fixation in gas-liquid two-phase DBD reactor with three electrodes	
15 30	O-03 Peter TÓTH Interaction and mutual influence of transient spark with electrospray for plasma activated water generation	O-17 Joo Young PARK In-situ optical diagnostics and 0-D modeling of reactive species at confined gas-liquid interface of wearable plasma patch	O-27 Tomoaki MIICHI Investigation of acetic acid decomposition process in N ₂ -O ₂ pulsed plasma using TOC and liquid-phase ionic species	O-44 Daiqi YE Selective conversion of CO ₂ catalyzed by non-thermal plasma coupled catalyst
30 30	O-04 Muhd Hadi ISKANDAR Operational characteristics of atmospheric-pressure plasma CO ₂ decomposition using SV, SEI and active power analysis	O-18 Ana SAINZ-GARCÍA Combined cold plasma strategies for biofilm inactivation on endoscopes	O-28 Kiran AHLAWAT Microbubble-enhanced cold plasma for water treatment	O-45 Stefan NEUHAUS DC plasma technology as alternative to conventional burners in semiconductor point-of-use abatement
45 30	O-05 Asami HATAMOTO Development and validation of similarity law for dielectric surface temperature of DBD plasma actuator	O-19 Oleksandr GALMIZ Antimicrobial decontamination of tubes using a water-electrode surface DBD	O-29 Katsuyuki TAKAHASHI Influence of voltage polarity and conductivity on chemical and physical reactions induced by pulsed discharges over liquid	O-46 Akinori ZUKERAN Collection efficiencies of black carbon, soluble organic fraction and sulfate particles in a high-electric-field ESP for diesel exhaust
11 00	coffee break (30 min)	coffee break (30 min)	coffee break (30 min)	O-47 Alex DESTRIEUX VOC removal by DBD coupled with UV activated TiO ₂ for indoor air treatment
30 30	I-02 chair: C. O. LAUX Dae-Yeong KIM Understanding plasma-catalyst interactions in CO ₂ and CH ₄ conversion	I-05 chair: V. GUERRA Ramses SNOECKX Kinetic and thermodynamic insights into CO ₂ and CH ₄ plasmas for Power-to-X	I-07 chair: H.-H. KIM Yaolin WANG Plasma catalysis for the sustainable production of fuels	O-48 Rashid ARIPRAM Effect of dielectric and ferroelectric packing materials on benzene degradation in packed-bed DBD
45 30				coffee break (30 min)
12 00	O-06 Yanbin XIN Hydrogen donor regulated reaction pathways for heavy oil lightening by liquid phase gliding arc plasma	O-20 Hyun-Ha KIM Role of oxygen content in plasma nitrogen fixation	O-30 Zunrong SHENG Selective activation of C-H bonds NTP by pore-modulated electron shielding	O-49 chair: N. TAKEUCHI Joanna PAWLAT Non-thermal cold plasma technologies in food science
15 30	O-07 Laurent MILLIERE Comparative performance of polymers pellet plasmalysis using kHz, MHz, and GHz NTP discharges	O-21 Mário JANDA Enhancing nitrogen fixation in a transient spark by air-inlet hydrogen peroxide addition	O-31 Richard CIMERMAN Plasma-catalytic VOC removal with nonthermal plasma regeneration and repetitive use of coke-deactivated catalysts	O-50 Volker BRÜSER Plasma and ultrasound - Synergistic approach for biomass pretreatment
30 30	O-08 Amal BELHCEN Catalytic reverse water gas shift reaction assisted by electric field over Ce- and Zr-based materials	O-22 Junliang WU NTP-initiated water-gas shift for direct synthesis of H ₂ O ₂ and NH ₃	O-32 Ikram GORRAM Investigating plasma-catalyst interactions for CO ₂ hydrogenation over structured catalysts under NTP	O-51 Toshiyuki KAWASAKI Plasma-driven ROS transport in straight nanothrough-hole arrays
45 30	O-09 Nito DEBACHER Comparative study of graphene functionalization by non-thermal plasma using multiple precursors	O-23 Rezvan HOSSEINI RAD Novel integration of electrolysis cell into planar DBD reactor for ammonia synthesis	O-33 Samy BOUACEM Production of H ₂ from H ₂ S using plasma-catalysis coupling	O-52 Adriana MIŠÚTHOVÁ Multifunctional horizon of plasma-activated water in hydroponic lettuce cultivation
13 00	lunch (90 min)	lunch (90 min)	lunch (90 min)	closing ceremony
14 30	I-03 chair: K. YAN Christophe LAUX Plasma-assisted combustion: From mechanisms to applications	excursion	O-34 chair: S. KANAZAWA Moo Been CHANG Advancing resource recovery: Synergistic gas-phase IPA removal and hydrogen generation via plasma-catalytic system	TOPICS 1. Fundamentals and plasma diagnostics 2. Modeling and simulations 3. Air pollution control (NOx, VOCs, PM, Odors) 4. Water and wastewater treatment 5. Remediation of hazardous compounds 6. Plasma catalysis 7. Plasma assisted combustion 8. Fuel reforming and sustainable energy 9. Power-to-X (X = H ₂ , CH ₄ , NH ₃ , MeOH, NOx) 10. Biological and biomedical applications 11. Agriculture and food processing 12. Industrial plasma techniques and applications
15 00	O-10 Yanan LIU Plasma technologies for pollutant removal from different environmental media		O-35 Amir MACHMUD Plasma-driven conversion of aqueous isopropanol into hydrogen over Ni-TiO ₂ catalysts	
15 30	O-11 Yong Sup CHOI Development of plasma technologies in KFE-IPT for carbon neutral society		O-36 Kaixun YAO Green sulfonation of carbon nanotubes by water-film DBD plasma for cellulose hydrolysis catalysis	
30 30	O-12 Tae-Hee KIM Thermal plasma processing for advanced nanomaterials synthesis		O-37 Christopher SALES Investigating the use of non-thermal reverse vortex flow gliding arc plasma for treatment of PFAS	
45 30	O-13 Hendrik BURGHHAUS Waste to syngas: Plasma as an enabler for a circular carbon economy		O-38 Nozomi TAKEUCHI Investigation of effective plasma methods for PFAS decomposition	
16 00	coffee break (30 min)		O-39 Siqi DENG Effect of interfacial behavior and solution conductivity on PFAS degradation by pulsed plasma-liquid interaction	
30 30	poster session (90 min)		coffee break (30 min)	
45 30			O-40 chair: Y. LIU Ester MAROTTA Energy-neutral hybrid plasma system for holistic point-of-use wastewater treatment	
17 00			O-41 Plamena MARINOVA Effect of different plasma pre-treatment regimes on biomethane potential during anaerobic digestion of biodegradable waste	
15 30			O-42 Mei KADOWAKI Effects of geometric parameters of holes on PFOA decomposition using passing-through type diaphragm discharge	
18 00		O-43 Sofía De La YDALGA MENÉNDEZ Cold plasma treatment of grape stalk waste for enhanced Cu(II) biosorption	 ISNTP-14	
19 00		gala dinner		
			Sept 27 - Oct 1, 2026, Bratislava, Slovakia	



Sept 27 - Oct 1, 2026, Bratislava, Slovakia

14th International Symposium on Non-thermal/Thermal Plasma for Pollution Control and Sustainable Energy (ISNTP-14)

P-01	Zhuo HUANG Optimization-based method for designing resonant magnetic perturbation coils in magnetic confinement devices
P-02	In Je KANG Characteristics of laminar plasma jet using an enthalpy probe for plasma-assisted methane cracking
P-03	Saeedeh KHOSRAVI Electrochemical impedance monitoring of plasma-treated water
P-04	Filip PASTIEROVIČ Absorption spectrometer for in situ measurement of NO ₂ , NO ₃ in the atmospheric plasma discharge
P-05	Momoko SHIMIZU Numerical analysis of ionic-wind generation by repetitive positive streamers in needle-to-plate electrode configuration
P-06	Sergei SMIRNOV Study of transient spark using Schlieren imaging
P-07	Barbora TARABOVÁ Interfacial reaction of O ₂ -He plasma jet-derived atomic oxygen with aqueous nitrite
P-08	Desanka TOPALOVIĆ Influence of amorphous ZnO and metallic Zinc on RONS formation in plasma activated water
P-09	Tim BOLLES Experimental and numerical characterization of the micro APPJ in argon
P-10	Sangheum EOM Computational modeling of a laminar plasma jet for plasma-assisted methane cracking
P-11	Dominik FILLA Investigation of streamer dynamics in dielectrically coated surface dielectric barrier discharges under ns excitation
P-12	Pierre-Antoine GOUTIER Analytical determination of nanosecond electric discharge impedance from voltage-current time traces
P-13	Kotaro HAMADA Development of numerical platform for charge transport analysis in plasma-liquid interaction systems
P-14	Akshara CHITHRAN Microbubble-enhanced cold plasma system combined with catalytic nanoparticles for the degradation of tetracycline from water
P-15	Yanan LIU NTP for sustainable water and wastewater treatment
P-16	Ramin MEHRABIFARD Degradation of tetracycline in wastewater using various plasma-based systems
P-17	Martina MODIC Non-thermal air plasma in falling film reactor for mitigation of chemicals of emerging concern in wastewater
P-18	Kecheng SHEN Effect of plasma-induced liquid flow on PFAS decomposition
P-19	Fernando ALBA-ELÍAS PLASMA-LIPS: a scalable, energy-efficient plasma-treated water platform for sustainable water treatment
P-20	Jie LI Devulcanization of ground tire rubber using a plasma-assisted fluidized-bed system
P-21	Plamena MARINOVA Low-temperature plasma treatment as sustainable approach for elimination of heavy metals contamination effects
P-22	Richard CIMERMAN CO ₂ conversion by transient spark discharge in dry N ₂ /CO ₂ and humid N ₂ /CO ₂ /H ₂ O gas mixtures
P-23	Nan JIANG Mechanistic insights into plasma-driven MgO nitridation for chemical looping ammonia synthesis
P-24	Yue LIU NTP-coupled MOFs enabling CO ₂ capture and selective conversion under ambient conditions
P-25	Gokul SELVARAJ Synergistic non-thermal plasma and mixed metal oxide honeycomb catalysis for scalable VOC abatement
P-26	Priyanka KUMARI Plasma induced oxidation of C5-C8 saturated hydrocarbons in ambient corona discharge characterized by IMS MS
P-27	Nito DEBACHER Biomass-derived carbon functionalized by non-thermal plasma for enhanced supercapacitor electrodes
P-28	Nito DEBACHER Surface and electronic effects of NTP on organic photovoltaic materials
P-29	Dae Hoon LEE In progress report on parametric study of cost effective nitrogen fixation by controlled arc
P-30	Vasyl SHVALYA Plasma-enabled plasmonic sensors for nucleic acid topological states
P-31	Raul SÁNCHEZ ARANZUBÍA Cold plasma treatments to boost barley germination for sustainable beer production
P-32	Shivang SINGH Plasma-activated water produced by transient spark discharge for soilless plant cultivation
P-33	Piotr TEREKUN Application of a gliding arc reactor in plasma treatment of wine without the addition of sulfites
P-34	Dawid ZARZECZNY Use of low-temperature plasma for decontamination of meat
P-35	Han Jun LEE Biochar production from <i>Undaria pinnatifida</i> using DC thermal plasma