

# Poster Session Program

## POSTER SESSION 2, Thursday, July 11, 14:30-16:30

- P2-T1-01** **S. Kawaguchi**; Y. Iwabe; K. Takahashi; K. Satoh; *Electron collision cross section set of  $O_2$*
- P2-T1-02** **V. J. Herrero**; R. J. Pelaez; M. Jimenez-Redondo; I. Tanarro; *Ion chemistry in  $C_2H_2/N_2/Ar$  cold plasmas: Anions of astrophysical interest*
- P2-T1-03** **W. Graef**; E. Carbone; L. Vialetto; M. Hopkins; L. L. Alves; *The 2024 status report on the LXCat project*
- P2-T3-04** **L. Kuijpers**; C.F.A.M van Deursen; E.J. Devid; W.A. Bongers; M.C.M. van de Sanden; *Experimental investigation of the complex chemistry in dry reforming microwave discharges*
- P2-T3-05** **N. Babucic**; K.Kutasi; N.Skoro; N.Puac; *Characterization of Microwave Surface-Wave Launchers operating at Atmospheric pressure for Water Treatment*
- P2-T3-06** V. Ilbeigi; **P. Kumari**; S. Matejcek; *Study plasma-chemical processes of alkanes in atmospheric pressure corona discharge by ion mobility spectrometry-mass spectrometry (IMS-MS)*
- P2-T3-07** S. Lazarova; Ts. Paunska; V. Vasilev; **St. Kolev**; *CO<sub>2</sub> Conversion in a Gliding Arc Discharges with Different Electrode Materials and Magnetic Field Configurations*
- P2-T4-08** **F. J. Morales-Calero**; A. Cobos-Luque; J. Munoz; R Rincon; A. M. Raya; J. A. Alcuson; N. Y. Mendoza-Gonzalez; M. D. Calzada; *Fundamental study of atmospheric pressure Ar-N<sub>2</sub> postdischarges and their application for metallic surfaces cleaning and activation*
- P2-T4-09** **G. Cartry**; R. MaGee; J. Broude; T. Gans; J. Dedrick; M-A Pinault-Thaury; M. Sasao; Jocelyn Archard; J.M. Layet; *Surface production of negative-ions in hydrogen plasmas: comparative analysis of different surface materials*
- P2-T4-10** **L. Zajickova**; M. Janusova; D. Necas; M. Elias; D. Hegemann; P. Navascues; L. Janu; *Insight into plasma polymerization with the significant contribution of ions towards deposition and etching balance*
- P2-T4-11** **R. Masheyeva**; P. Hartmann; L.-Y. Luo; K. Dzhumagulova; Y.-X. Liu; J. Schulze; Z. Donko; *On the in-situ determination of the effective secondary electron emission coefficient in low pressure capacitively coupled radio frequency discharges based on the electrical asymmetry effect*
- P2-T4-12** **T. Nonaka**; K. Takahashi; A. Uchida; O. Tsuji; *Deposition rates and chemical compositions of  $C_4F_8$  plasma polymerization films on trench sidewalls*
- P2-T4-13** **V. Mazankova**; D. Trunec; *Kinetics of ozone production by surface processes*
- P2-T4-14** A. Siby; D. Stefas; Y. Agha; L. Invernizzi; C.Y. Duluard; K. Gazeli; G Lombardi; K. Hassouni; **S. Prasanna**; *Usefulness of ps-TALIF to measure gas temperature and collisional cross-sections*
- P2-T4-15** **P. Viegas**; J. Afonso; J. Silveira; T. C. Dias; L.Vialetto; A. S. Morillo-Candas; V. Guerra; *Surface recombination in Pyrex in oxygen DC glow discharges*
- P2-T5-16** **N. Selakovic**; D. Maletic; N. Puac; G. Malovic; Z. Lj Petrovic; *Time-resolved images and detection of positive and negative ion species of atmospheric pressure plasma jet with spiral electrodes*

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- P2-T5-17** **G. LaCombe**; J. Wang; J. Rouxel; M. S. Simeni; *New Coherent Techniques for Ultrafast Diagnostics in Plasmas*
- P2-T5-18** **M. Pazderka**; A.P. Jovanovic; M. Cernak; M.M. Becker; T. Hoder; *Sub-nanosecond development of electrical current in argon barrier discharge at atmospheric pressure*
- P2-T5-19** L. Beving; **M. Hopkins**; G. Severn; *Sheath Expansion around Langmuir Probes in Flowing Plasmas*
- P2-T5-20** **M. Mrkvickova**; P. Dvorak; B. Stadlerova; J. Kratzer; *Atomizers of tin hydride studied by laser-induced fluorescence*
- P2-T5-21** **D. Prokop**; M. Mrkvickova; J. Tungli; P. Dvorak; S. Kadlec; T. Hoder; *Electrical charge relaxation on a dielectric surface*
- P2-T5-22** **O. Jovanovic**; F. Krcma; L. Dostal; N. Puac; N. Skoro; *Time evolution of emission profiles and spatial structure of a plasma jet streamer discharge in contact with liquid*
- P2-T5-23** **P. Skopal**; P. Dvorak; *The ignition of low-pressure capacitively coupled discharge*
- P2-T5-24** **K. Polaskova**; P. Drexler; M. Klima; J. Machac; D. Necas; M. Svanda; L. Zajickova; *Antenna measurement of electric field and higher harmonics in atmospheric plasma jets interacting with different targets*
- P2-T5-25** **R. Labenski**; D. Steuer; H. van Impel; M. Boeke; V. Schulz-von der Gathen; J. Golda; *Surface charge tailoring for plasma catalysis*
- P2-T5-26** F. Enescu; A. Gobarev; G. Rotaru; C. Ionita; **R. Schrittwieser**; *Spectral investigation on two spherical cathode discharges*
- P2-T5-27** **K. Sasaki**; K. Takada; S. Nishiyama; *Estimation of sheath electric field based on Doppler broadened absorption spectrum of hydrogen Balmer-alpha line*
- P2-T5-28** P. Bilek; G. Arora; P. Hoffer; V. Prukner; T.C. Dias; V. Guerra and **M. Simek**; *Advanced analysis of overlapping emission spectra induced by highly transient discharges*
- P2-T5-29** **Y. Yamashita**; K. Doi; T. Kiyota; S. Watanabe; K. Shimatani; W. Kikuchi; Y. Ye; A. Nezu; H. Akatsuka; *Electron temperature diagnosis of CF<sub>4</sub> O<sub>2</sub> plasma based on fluorine atomic corona model by tomographic optical emission spectroscopic measurement*
- P2-T5-30** **Z. Navratil**; L. Kusyn; Z. Bonaventura; T. Hoder; *On the line intensity ratio for electric field measurement in dielectric barrier discharge in argon at atmospheric pressure*
- P2-T5-31** **Z. Shu**; N.A. Popov; S.M. Starikovskaia; *Absolute calibration of Xe/O cross-section ratio for TALIF in nanosecond capillary discharge: optimization of the discharge parameters*
- P2-T6-32** **D. F. N. Santos**; O. Ojeda Mena; M. Lisnyak; M. S. Benilov; *Exploring arcing phenomena in low-voltage contactors: a comprehensive study through numerical modelling and experiment*
- P2-T6-33** **P. G. C. Almeida**; G. V. Naidis; and M. S. Benilov; *Theory of stability of self-sustaining DC discharges at inception with application to negative corona*

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- P2-T6-34** **J. Tungli**; Z. Bonaventura; D. Prokop; L. Kuthanova; T. Hoder; J. Fedor; M. Rankovic; M. Horky; S. Kadlec; *Determination of photoionization properties of  $C_4F_7N - N_2$  mixture and their application in streamer simulation*
- P2-T6-35** **J. Jansky**; R. Janalizadeh; V. P. Pasko; *Investigating of ignition of positive corona discharge in air using a time dependent fluid model*
- P2-T6-36** **K. Tomankova**; K. Mrozek; A. Obrusnik; A. Fromm; F. Burmeister; *Sensitivity analysis of various physics processes in industrial HiPIMS: A global plasma modelling perspective*
- P2-T6-37** **L.Y. Luo**; P. Hartmann; Z. Donko; H.P. Li; *Argon metastable atom quenching in low pressure Ar O<sub>2</sub> CCPs*
- P2-T6-38** **Y. Liu**; T. Silva; T. C. Dias; P. Viegas; X. Zhao; Y. Du; J. He; V. Guerra; *Kinetic study of gas heating in low pressure CO<sub>2</sub> plasmas*
- P2-T6-39** **S. Van Rompaey**; M. Gromov; E. Morais; A. Bogaerts; R. Morent; *Diagnostic characterisation and 0D modelling study of ns-pulsed plasma-assisted methane pyrolysis*
- P2-T6-40** **U. Ebert**; D. Bouwman; J. Teunissen; *Macroscopic parameterization of positive streamers in air: velocity, radius, field etc.*
- P2-T6-41** **M. M. Becker**; A.P. Jovanovic; L. Kusyn; T. Hoder; *Influence of voltage waveform and repetition frequency on atmospheric-pressure barrier discharges in argon*
- P2-T6-42** **N. G. C. Ferreira**; P. G. C. Almeida; A. E. Taher; G. V. Naidis; M. S. Benilov; *Numerical investigation of stability of low-current point-to-plane negative corona in air*
- P2-T6-43** **E. Calvo**; T. Santos; J. Henriques; M. J. Pinheiro; P. Sa; *Three-Dimensional Charged Particle Tracing of ExB Plasma Discharge in Hall Thrusters*
- P2-T6-44** **P. Burda**; N. Corthouts; G. May; Z. Bonaventura; T. Magin; *Solving steady and unsteady multi-physics problems using a hybridized discontinuous Galerkin solver*
- P2-T6-45** K. Koehn; D. Krueger; L. Vogelhuber; D. Eremin; L. Xu; **R.P. Brinkmann**; *The electric potential in high power magnetron discharges: A toy model*
- P2-T6-46** **R. Almeida**; P. Almeida; H. Kaufmann; M. Benilov; *Fast Calculation Tool for Breakdown Voltage in a setup with a Dielectric Surface*
- P2-T6-47** **R. Brunovsky**; A. Obrusnik; Z. Bonaventura; G. D. Stancu; *Multi-physics simulation of microwave capillary discharge in Argon: towards comprehensive power balance*
- P2-T6-48** **S. J. Doyle**; R. W. Boswell; C. Charles; J. P. Dedrick; *Magnetic Enhancement of the Electrical Asymmetry Effect in Capacitively Coupled Plasmas*
- P2-T6-49** **Q. Shen**; A. Pikalev; J. Gans; and R. van de Sanden; *Understanding NO formation and destruction by non-thermal effect in the quenching process of microwave air plasma*
- P2-T6-50** **M. Stastny**; K. Mrozek; K. Jurik; L. Havlicek; M. Novotny; A. Obrusnik; *Numerical simulation of a low-pressure electrodeless ion source intended for air-breathing electric propulsion*
- P2-T6-51** A. Tejero del Caz; D. Simoes; T. C. Dias; V. Guerra; M. Lino da Silva; L. Marques; N. Pinhao; C. D. Pintassilgo; **L. L. Alves**; *The LisbOn Kinetics LoKi-B+C simulation tool*

## Poster Session Program

- P2-T6-52** **Z. Belkaid**; E. Morel; A. Revel; T. Minea; *Plasma model for high power impulse magnetron sputtering (HiPIMS) with helium*
- P2-T6-53** **F. Zmeko**; E. Mullerova; Z. Bonaventura; *Macroscopic Model of Non-thermal Plasma Filament Based on Probabilistic Approach*
- P2-T7-54** **S.S. Ussenkhan**; A.T. Zhunisbekov; Y. Yerlanuly; A.U. Utegenov; S.A. Orazbayev; T.S. Ramazanov; L. Boufendi; H.Vach; *Obtaining of silicon nanoclusters by the PECVD method*
- P2-T8-55** **F. Krcma**; Z. Kozakova; F. Zbytek; M. Moravcik; *Influence of discharge kind on processes in Titan like atmosphere*
- P2-T8-56** **M. Moravcik**; F. Krcma; *Influence of water vapor on electrical discharge-initiated processes in prebiotic atmospheres*
- P2-T8-57** **F. J. Pérez-Invernón** ; J. F. Ripoll; F. J. Gordillo-Vázquez; P. Camino-Faillace; T. Neubert; O. Chanrion; N. Ostgaard; *A Comprehensive Analysis of Optical Emissions in Exposed Lightning Channels*
- P2-T9-58** S. J. Doyle; **M. J. Kushner**; *Toroidal Plasma Sources for Remote and Isotropic Processing*
- P2-T9-59** **J. Marjanovic**; D. Maric; Z. Lj Petrovic; *Emission properties of low-pressure low-current DC discharge in freons of new generation*
- P2-T9-60** **V. Orlandi**; M. Dion; J. Brochie; A. Paillet; M. L. Kahn; L. Stafford; R. Clergereaux; *Effects of argon pulsed injection on a surface-wave plasma column at low pressures*
- P2-T9-61** **V. Wolf**; R. Friedl; U. Fantz; *Ammonia production in a low- to mid-pressure microwave discharge*
- P2-T10-62** **T. Bogdanov**; E. Benova; P. Marinova; *Novel microwave plasma source for wastewater treatment and prevention of chemical pollution in the environment*
- P2-T10-63** **J. Thiel**; S. Kreuznacht; M. Boeke; A. von Keudell; *Iron oxide reduction in a high-performance argon-hydrogen plasma*
- P2-T10-64** **L. Silberer**; S. Soldatov; G. Link; A. Navarrete; R. Dittmeyer; J. Jelonnek; *Investigation of emission spectra of atmospheric CO<sub>2</sub> plasmas sustained with microwave pulsation in a high Q resonator*
- P2-T10-65** S. Soldatov; **L. Silberer**; G. Link; A. Navarrete; R. Dittmeyer; J. Jelonnek; *Optimization of gas quenching of atmospheric CO<sub>2</sub>-plasma sustained in microwave reactor by application of water-cooled nozzles*
- P2-T10-66** **M. Khasenov**; S. Samarkhanov; E. Batyrbekov; Yu. Gordienko; Yu. Ponkratov; V. Bochkov; E. Sapparbek; A. Sluyanov; S. Tolmachev; *Reaction of lithium-6 with thermal neutrons as a source of nuclear-induced plasmas of gas mixtures*
- P2-T10-67** E. Bizeray; A. Belinger; S. Dap; F. Fanelli; **N. Naude**; *Synthesis of metal polymer nanocomposite thin film through interaction of a gold salt solution aerosol with a Dielectric Barrier Discharge*
- P2-T10-68** **N. Skoro**; O. Jovanovic; G. Malovic; N. Puac; *Characterization and optimization of 3-pin atmospheric pressure plasma jet system for water treatment*
- P2-T10-69** **P. Marinova**; T. Bogdanov; E. Benova; M. Kirilova; Y. Todorova; I. Yotinov; I. Schneidern; Y. Topalova; *Non-thermal plasma treatment of landfill leachate for detoxification of hazardous pollutants*

# Poster Session Program

- P2-T10-70** G. Regodon; H. Acosta-Rivera; R. Alvarez; V. Rico; A. Palmero; **M. C. Garcia**; *Modifying atmospheric pressure surface-wave-sustained plasmas with silicon plates for discharge stability*
- P2-T10-71** T. Ohara; S. Kinoshita; **K. Takahashi**; *Inactivating C.sphaerospermum and its mechanism in atmospheric pressure plasmas with water mist*
- P2-T11-72** **O. Jašek**; J. Toman; P. Šťáhel; J. Jurmanová; M. Stupavská; *Tunable stability of microwave plasma synthesized few-layer graphene dispersion in water*
- P2-T11-73** F. J. Morales-Calero; A. Cobos-Luque; J. M. Blázquez-Moreno; A.M. Raya; **R. Rincón**; J. Muñoz; A. Benítez; N. Y. Mendoza-González; J.A. Alcusón; A. Caballero; M. D. Calzada; *Experimental Evidence of TIAGO Torch Plasma as a Surface Wave Discharge and Identification of the Radiation Zone: Improving Graphene Synthesis*
- P2-T11-74** **A. Obrusnik**; M. Mrkvickova; W. Khan; N. Boulouki; T. Medek; M. Svoboda; J. Kratzer; J. Dedina; P. Dvorak; *Simulation of plasma; chemistry; and flow dynamics in flame-based and plasma-based hydride atomizers*
- P2-T11-75** **R. Vertongen**; G. De Felice; H. van den Bogaard; F. Gallucci; A. Bogaerts; S. Li; *A different take on DRM in DBD: combining sorbents and plasma for single-stage CCU*
- P2-T11-76** V. Lafaurie; Z. Shu; M. Sadauskaite; P. Vidal; **S. M. Starikovkaia**; *Nanosecond plasmas generation of a chemical gradient for detonation initiation: O-TALIF and OES characterisation*