XXXIII
International Conference on Phenomena in Ionized Gases

9-14 July 2017, Estoril / Lisbon, Portugal

Scientific Program

MONDAY, July 10

OPENING, 09.20-09.45, Room 1 (Auditorium)

PLENARY SESSION, 09.45-10.30, Room 1 (Auditorium)

- 09.45-10.30, M. Hori (Japan)
  Plasma-material interactions: diagnostics and control

TOPICAL SESSION, 11.00-12.30, Room 1 (Auditorium)

High pressure and thermal plasma processing
Non-equilibrium plasmas and microplasmas at high pressures
Thermal plasmas
Plasma wall interactions, electrode and solid/liquid surface effects
Medical, biological, environmental and aeronautical applications

- 11.00-11.30, T. Kaneko (Japan)
  Gas-liquid interfacial plasmas for novel gene transfer systems
- 11.30-11.50, J. Chauvin (France)
  Cell death mechanism on human colorectal cancer after PAM (Plasma Activated Medium) treatment
- 11.50-12.10, M. Pajak (UK)
  Efficacy of plasma-generated ozone in bioburden decontamination
- 12.10-12.30, E. Benova (Bulgaria)
  Surface-wave-sustained plasma for model biological systems treatment

TOPICAL SESSION, 11.00-12.30, Room 2

Plasma processing of surfaces and particles
Plasma power and pulsed power technology, particle sources
Low pressure plasmas

- 11.00-11.30, M. Nistor (Romania)
  Pulsed electron beams for thin film deposition
- 11.30-11.50, A.S.C. Nave (Germany)
  Spectroscopic study of low pressure, low temperature H2-CH4-CO2 microwave plasmas used for large area deposition of nanocrystalline diamond films
- 11.50-12.10, H. Biederman (Czech Republic)
  In-flight modification of metallic nanoparticles by low pressure RF plasma
- 12.10-12.30, A. Dias (Portugal)
  Free-standing graphene: synthesis and functionalization using plasma-based methods

POSTER SESSION I, 14.00-16.00

Poster	ID	Authors	Title
PI.1	7	Igor Melnyk	Simulation of Triode High Voltage Glow Discharge Electron Sources With Taking Into Account The Anode Plasma Parameters
PI.2	12	David Arruda Toneli, Rodrigo Savio Pessoa, Marisa Roberto and Jon Tomas Gudmundsson	Formation and annihilation of O2_ ions in an oxygen discharge
PI.3	19	Satoshi Uchida, Taketo Yoshida and Fumiyoshi Tochikubo	Molecular Dynamics Simulation of Reaction Mechanism between Reactive Oxygen Species and Membrane Lipid Molecules in Moisture

Poster	ID	Authors	Title
PI.4	24	Seyedeh Mahnaz Modir Khazeni and Juan Pablo Trelles	Coarse-Grained Simulation Method for Turbulent Nonequilibrium Plasma
PI.5	26	Maeva Courrege, Jean Jacques Gonzalez and Pierre Freton	Ablated mass in high-voltage circuit breakers following the nature of electrode material
PI.6	29	Hirotake Sugawara	Calculation of electron velocity distribution function under crossed electric and magnetic fields using a propagator method
PI.7	30	Stijn Heijkers, Marleen Ramakers, Georgi Trenchev, Antonin Berthelot and Annemie Bogaerts	Gliding arc plasmatron for CO2 splitting: A chemical kinetics modelling perspective
PI.8	33	Tomo Tadokoro, Masashi Kotari, Ohtaka Toshiya and Mikimasa Iwata	Internal Pressure Rise due to Arc under Insulating Oil in a Closed Vessel
PI.9	41	Karl Felix Lüskow, Stefan Kemnitz, Gunnar Bandelow, Julia Duras, Daniel Kahnfeld, Paul Matthias, Ralf Schneider and Detlev Konigorski	Reduction of heat-fluxes during re-entry using magnetic fields
PI.10	46	Mostafa Hemmati, Jesse Griffiths and Michael Bowman	Current Bearing Anti-Force Waves (Lightning Return Stroke)
PI.11	82	Nikolay Dyatko and Anatoly Napartovich	Theoretical study of the influence of nitrogen admixture on plasma decay rate in argon dc afterglow
PI.12	91	Youngdo Jeong, Young Jun Lee, Deuk-Chul Kwon and Heehwan Choe	A modified fluid simulation of an inductively coupled plasma discharge with radio frequency bias considering heat transfer effect
PI.13	105	Imai Ryota, Satoshi Uchida and Fumiyoshi Tochikubo	Transport Characteristics of Reactive Oxygen Species in Cell Membranes with Molecular Dynamics - Superposition Effect of Electric Field -
PI.14	107	Chia-Yu Chen and Keh-Chyang Leou	Simulation Study of Radio Frequency Capacitively Coupled CF4 Plasma Discharge
PI.15	115	Iryna Litovko, Alexey Goncharov, Andrey Dobrovolskiy, Alexey Bugaev, Vasiliy Gushenets and Efim Oks	Modeling of self-consistent mode formation in an electrostatic plasma lens
PI.16	140	Natalia Babaeva, Dmitry Tereshonok, George Naidis and Eduard Son	Diffuse discharges in helium and air: role of fast secondary electrons
PI.17	147	Ashutosh Agnihotri, Willem Hundsdorfer and Ute Ebert	Modelling heat dominated electric breakdown in air with adaptivity to electron or ion timescales
PI.18	197	Miguel Jiménez-Redondo, Luís Marques, Nathalie Carrasco, Guy Cernogora and Luís L. Alves	Modelling of N2-H2 capacitively coupled radio-frequency discharges
PI.19	208	Masaru Miyashita	RF plasma simulation using semi-analytical sheath model
PI.20	211	Loann Terraz, Tiago Silva, Duarte Nina, Nuno Pinhão, Olivier Guaitella and Vasco Guerra	N2 influence on the vibrational distribution of the asymmetric level of CO2
PI.21	229	Ning Ning and Sergey Khrapak	Atomic scale study of Al clustering and particle growth
PI.22	230	Sandugash Kodanova, Tlekkabul Ramazanov, Moldir Issanova, Elnur Shokparbayeva and Sergey Maiorov	Computer simulation of ion stopping in a dense plasma by the Monte Carlo method
PI.23	232	Antonio Tejero-Del-Caz, Duarte Nina, Samuel Jacob, Duarte Gonçalves, Mário Lino Da Silva, Luís Marques, Nuno Rombert Pinhão, Carlos Daniel Pintassilgo, Vasco Guerra and Luís Lemos Alves	Development of the LisbOn KInetics (LoKI) tool
PI.24	236	Adam Obrusnik, Marek Talaba, Martina Mrkvickova, Jan Kratzer, Pavel Dvorak and Jiri Dedina	Plasma vs combustion in analytical chemistry: comparing the kinetics of DBD plasma and flame-based atomizers
PI.25	262	Marija Grofulovic, Tiago Silva and Vasco Guerra	Sensitivity and uncertainty analysis of a kinetic model for CO2 non-equilibrium plasmas
PI.26	267	Tiago Silva, Marija Grofulović, Bart Klarenaar, Olivier Guaitella, Richard Engeln, Carlos Pintassilgo and Vasco Guerra	Understanding the electron and vibration kinetics in CO2 plasmas
PI.27	275	Behnaz Bagheri, Jannis Teunissen and Ute Ebert	Comparison study of different simulation codes for positive streamers propagating into a region below breakdown
PI.28	285	Rolando Ayllon, Hugo Terças and Mendonça	Electron trapping in ultra-cold plasma cloud
PI.29	298	Timofey Chernyshev, Dariya Krivoruchko and Alexander Skrylev	ExB-probe modeling for diagnostics of Plasma Propulsion Thruster

Poster	ID	Authors	Title
PI.30	302	Jozef Brcka	The NH3 plasma transition into “ion-ion” or transient H-E plasma mode
PI.31	317	Maria Castela, Bruno Lopez and Mario Lino Da Silva	Parallel computing of multidimensional hypersonic re-entry flows considering a state-to-state description
PI.32	346	Jens Oberrath	Kinetic damping in the admittance and impedance spectra of the spherical impedance probe
PI.33	384	Lijun Wang, Xiao Zhang and Shenli Jia	Model and Simulation of the formation of cathode spot in vacuum arc
PI.34	410	Ao Xu, Lin Yang, Wei Zhong, Yunlong Liu, Dazhi Jin and Lei Chen	Simulation on the characteristic of plasma evolution in three electrode gas spark gaps
PI.35	57	Prabhakar Srivastav, Rameshwar Singh, L M Awasthi, A K Sanyasi, R Singh and P K Kaw	Study of Turbulent Particle Transport in ETG Dominated Plasma of LVPD
PI.36	67	Yui Okuyama, Kotaro Arai, Susumu Suzuki and Haruo Itoh	Negative ion mobility and ion-molecule reactions in O2 with a trace amount of moisture
PI.37	187	Sandugash Kodanova, Tlekkabul Ramazanov, Moldir Issanova and Elnur Shokparbayeva	Transport properties of hot dense plasmas
PI.38	198	Yuri Golubovskii, Dmitry Kalanov, Vsevolod Maiorov, Margarita Baeva, Dirk Uhrlandt and Sergey Gortschakow	Radiation trapping in non-equilibrium plasmas: matrix methods and its application to arcs and glow discharges
PI.39	296	Chao Dong, Wenlu Zhang and Ding Li	The influence of strong magnetic field on the plasma transport
PI.40	17	Zoé Laforest, Jean-Jacques Gonzalez and Pierre Freton	Experimental and numerical study of a bubble plasma gas initiated by a wire explosion in a liquid
PI.41	22	Maria C García, Antonio Rodero, Antonio Gamero and Cristina Yubero	Gas temperature determination of non-thermal plasma jets from the collisional broadening of argon atomic emission lines
PI.42	45	Abhyuday Chatterjee, Jean-Paul Booth, Olivier Guaitella, Laurent Nahon, Nelson De Oliviera and Colin Western	Metastable Molecules in O2 Plasmas probed by High Resolution Fourier Transform Absorption Spectroscopy
PI.43	58	Vladimir Bernshtam, Eyal Kroupp, Alexander Starobinetz, Oleg Nedostup, Yury Zarnitzky, Yury Kuzminykh and Yitzhak Maron	Analysis of the K-radiation structure for the determination of HED-plasma parameters and their spatial variations along the line of view.
PI.44	62	Nikolay Britun, Thomas Godfroid, Tiago Silva and Rony Snyders	Optimizing the CO2 conversion efficiency in a low-pressure pulsed microwave plasma source
PI.45	74	Mamadou Sankhe	Diagnostics on aluminium dust explosion ignited by spark discharge
PI.46	80	Isabel Tanarro, Belén Alemán, Ramón Javier Peláez, Víctor José Herrero, José Luis Doménech, Pablo de Vicente, Juan Daniel Gallego, Juan Ramón Pardo, Koen Lauwaet, Gonzalo Santoro, José Ángel Martín-Gago and José Cernicharo	Astronomical radio-reception techniques for emission spectroscopy of molecular and short lived species in cold plasmas
PI.47	83	Galina Grigorian, Nikolay Dyatko and Igor Kochetov	Experimental and theoretical study of radial profiles of the Ar metastable atom density in diffuse and constricted dc discharges
PI.48	92	Wu Ying-Chieh and Leou Keh-Chyang	A Spiral Microstrip-line Microwave Resonant Probe- for Measurement of Plasma Density
PI.49	98	Sebastian Nemschokmichal, Robert Tschiersch and Juergen Meichsner	Electric field strength measurement by Stark polarization spectroscopy in diffuse helium-nitrogen barrier discharges
PI.50	101	Robert Tschiersch, Sebastian Nemschokmichal and Jürgen Meichsner	Surface charge measurements on different dielectrics in diffuse and filamentary barrier discharges
PI.51	119	Jan Vorac, Petr Synek, Vojtech Prochazka and Tomas Hoder	State-by-state emission spectra fitting for non-equilibrium plasmas: OH spectra of surface barrier discharge at argon/water interface
PI.52	120	Petr Synek, Yuri Semenovich Akishev, Alexander Petryakov, Nikolai Trushkin, Jan Vorac and Tomas Hoder	Charge transfer and ultra-fast imaging of the surface barrier discharge at argon/water interface
PI.53	125	José Luis Doménech, Isabel Tanarro, Brian Drouin, Víctor José Herrero and José Cernicharo	High resolution infrared spectroscopy of ions of astrophysical interest: H35Cl+ and H37Cl+, investigated in a cold plasma
PI.54	145	Milica Vasiljević, Gordana Majstorović and Nikola Šišović	Gas temperature distribution in cathode fall region of hydrogen Grimm glow discharge
PI.55	160	Fumiaki Mitsugi, Shota Kusumegi, Shin-Ichi Aoqui, Toshiyuki Nakamiya, Yoshito Sonoda and Toshiyuki Kawasaki	Optical wave microphone measurements on pressure waves emitted from plasma jets

Poster	ID	Authors	Title
PI.56	178	Ruslan Kozakov, Marc Bogaczyk, Saravanakumar Arumugam and Sergey Gortschakow	Combined electrical and optical diagnostics of surface discharges in high-voltage systems
PI.57	190	Valeriy Chinnov, Mikael Sargsyan, Dmitriy Kavyrshin and Andrei Chistolinov	Nitrization of graphite during its interaction with nitrogen plasma jet
PI.58	192	Valeriy Chinnov, Mikael Sargsyan, Makhach Gadzhiev, Dmitriy Kavyrshin and Max Khromov	The movement of the optical inhomogeneities and the velocity of the plasma jet
PI.59	201	Guillermo Fernando Regodón, José Ignacio Fernández Palop, Antonio Tejero-Del-Caz, Juan Manuel Diaz-Cabrera, Rafael Carmona-Cabezas and Jerónimo Ballesteros	Removal of supersonic ion singularity in radial Langmuir probe models
PI.60	233	Bart Klarenaar, Richard Engeln, Mark Damen, Richard van de Sanden, Ana-Sofia Morillo-Candas and Olivier Guaitella	Vibrational excitation kinetics of CO2 in a pulsed glow discharge
PI.61	263	Abderrahmane Kais, Juslan Lo, Laurent Therese and Philippe Guillot	Non-intrusive method for electron-density determination in low-pressure microwave plasma
PI.62	272	Antoine Durocher-Jean and Luc Stafford	Departure from Maxwellian electron energy distribution function in microwave argon plasma at atmospheric pressure
PI.63	273	Elmar Slikboer, Enric Garcia-Caurel, Ana Sobota and Olivier Guaitella	Tangential and Normal Electric Field Imaging using Mueller Ellipsometry for kHz driven Atmospheric Jet in Controlled Environment
PI.64	342	Saša Ivković, Bratislav Obradović, Nikola Cvetanović and Milorad Kuraica	Study of electric field distribution in helium and hydrogen DBD at lower pressures
PI.65	357	Mamadou Sankhe	Studies of laser-induced plasma in argon using emission spectroscopy and laser Thomson scattering: thermodynamic equilibrium and plasma heating by the probe laser beam
PI.66	358	Milorad Kuraica, Goran Sretenović, Vesna Kovačević and Bratislav Obradović	Electric field measurements in DBD plasma jet using intensity ratio of helium lines
PI.67	385	Fred Skiff, Ryan Hood, Robert Merlino and Scott Baalrud	High-resolution laser-induced fluorescence in the pre-sheath of a positively biased probe
PI.68	406	Roman Kornev, P Sennikov, A Abramov, S Sintsov and A Vodopyanov	Diagnostics of Chemically Active Plasma of RF Capacitive-coupled Discharge in H2+SiF4, H2+GeF4, H2+BF3 mixtures
PI.69	47	Antoine Sahab, Mohamad Hamady and Georges Zissis	Radiation study for DC and microware (mw) HID lamps
PI.70	319	Sergey Andreev, Nikolay Bogachev and Namik Gussein-Zade	Radiation of FM-signal by plasma asymmetrical dipole antenna
PI.71	335	Robert Carman, Deborah Kane, Noah Goldberg, Stu Hansen and Nigel Gore	Performance optimisation of a high-pressure argon dielectric barrier discharge excimer lamp: transient behaviour of the VUV output
PI.72	414	Deoggyun Cho, Duksun Han and Se Youn Moon	A study on the characteristics of hollow cathode discharge for the development of VUV lamp
PI.73	13	Askhat Amrenov and Mendykhan Khassenov	Luminescent spectra of noble gases and their binary mixtures under ion beam excitation

TOPICAL SESSION, 16.30-19.00, Room 1 (Auditorium)

Plasma diagnostic methods
Plasma lamps and radiation sources
Plasma created by external sources of ionization

- 16.30-17.00, C. Ionita (Austria)
  Recent developments in probe diagnostics
- 17.00-17.30, S. K. Karkari (India)
  Diagnosing negative ions using electrical probes
- 17.30-18.00, T. Trottenberg (Germany)
  Non-conventional plasma and sheath diagnostics
- 18.00-18.30, S. Nunomura (Japan)
  Characterization of electronic transport in semiconductor films during plasma processing
- 18.30-19.00, I. Adamovich (USA)
  Electric field measurements in surface discharges in atmospheric air over solid and liquid dielectrics

TOPICAL SESSION, 16.30-19.00, Room 2

Plasma processing of surfaces and particles
Plasma power and pulsed power technology, particle sources
Low pressure plasmas
Complex and dusty plasmas, ion-ion plasmas, mixed phase plasmas
Collective and nonlinear phenomena
Astrophysical, geophysical and other natural plasmas

- 16.30-17.00, M. Chaker (Canada)
  Pulsed laser and sputtering deposition of optical materials
- 17.00-17.30, T. Huiskamp (Netherlands)
  Nanosecond pulsed discharges: generation, measurements and plasma processing
- 17.30-18.00, K. Hara (USA)
  Direct kinetic simulation of nonlinear plasma waves and Hall thruster discharge plasmas
- 18.00-18.30, S. Tsikata (France)
  Rotating spoke instabilities in standard and wall-less Hall thrusters: experiments and PIC simulations
- 18.30-19.00, L. Couedel (France)
  Two-dimensional plasma crystals: waves and instabilities

TUESDAY, July 11

PLENARY SESSION, 09.00-10.30, Room 1 (Auditorium)

- 09.00-09:45, A. Neuber (USA)
  VUV Radiation from streamers
- 09:45-10.30, M. Cernak (Czech Republic)
  Unified theory of the streamer initiated gas breakdown

TOPICAL SESSION, 11.00-12.30, Room 1 (Auditorium)

Plasma processing of surfaces and particles
Plasma power and pulsed power technology, particle sources
Low pressure plasmas

- 11.00-11.30, A. von Keudell (Germany)
  Dynamic of HiPIMS plasmas
- 11.30-11.50, H. Toyoda (Japan)
  Quantitative evaluation of high-energy oxygen negative ion flux in DC magnetron sputtering of indium-tin-oxide
- 11.50-12.10, Y. Jang (South Korea)
  Investigation of ion dynamics in collisionless RF sheath
- 12.10-12.30, S. Béchu (France)
  Effects of plasma-facing materials on the negative ion (H-/D-) current extracted from an ECR plasma source

TOPICAL SESSION, 11.00-12.30, Room 2

Plasma diagnostic methods
Plasma lamps and radiation sources
Plasma created by external sources of ionization

- 11.00-11.30, E. Wagenaars (UK)
  Diagnostics of atmospheric pressure plasma jets
- 11.30-11.50, M. Kühn-Kauffedt (Germany)
  Stark broadening of multiple Ar I lines as a diagnostics tool for transient welding arcs containing metal vapor
- 11.50-12.10, A. Skrylev (Russia)
  Investigation of the excited state population density of Xe plasma by active and passive spectroscopy
- 12.10-12.30, P. Bílek (Czech Republic)
  Sensitivity analysis and uncertainty quantification for electric field determination in air from FNS and SPS intensity ratio

POSTER SESSION II, 14.00-16.00

Poster	ID	Authors	Title
PII.1	18	Violeta Georgieva, Stefan Tinck and Annemie Bogaerts	Influence of the radial plasma non-uniformity on the etch process
PII.2	40	André Ricard, Jean Philippe Sarrette, Yunfei Wang and Yu Kwon Kim	Densities of active species in N2/Ch4 afterglows with application to nitrogen and carbon doping of anatase nanocrystals and ALD TiO2
PII.3	68	Ryuta Ichiki, Keiichi Kitamura, Akihide Maeda, Ryuji Sannomiya, Kenta Yamanouchi, Seiga Chiba, Masayuki Kono, Tatsuro Onomoto, Shuichi Akamine and Seiji Kanazawa	Comparative study on atmospheric-pressure plasma nitriding processes with pulsed-arc jet and barrier discharge

Poster	ID	Authors	Title
PII.4	69	Hidetsugu Yagi, Shinji Yudate, Hideki Motomura and Masafumi Jinno	Characterization of carbon films by microwave-plasma assisted chemical vapour deposition in open-air system
PII.5	72	Yusuke Nakamura, Shiori Azuma, Toshiyuki Isshiki and Tatsuru Shirafuji	Solution-plasma synthesis of a gold-nanoparticle-containing polymer membrane on aqueous solution
PII.6	86	Paul Moroz and Daniel J. Moroz	Simulation of Plasma Processing with FPS3D
PII.7	95	Masaharu Shiratani, Toshiyuki Takasaki, Han Wang, Koichi Matsushima, Hyunwoong Seo, Kazunori Koga, Keigo Takeda, Masaru Hori and Naho Itagaki	Measurements of nitrogen and oxygen atom density in N2/Ar sputtering plasma for fabrication of high-mobility amorphous In2O3:Sn films
PII.8	97	Bogdan George Rusu, Ionut Topala, Catalin Borcia and Gabriela Borcia	Air versus Helium atmospheric-pressure plasma for enhanced adhesion of woven textiles
PII.9	99	Ryuji Sannomiya, Ryuta Ichiki, Katsuhiro Hanada, Syuichi Akamine and Seiji Kanazawa	Calcium phosphate film formation on TiN surface created by atmospheric-pressure plasma
PII.10	100	Akihide Maeda, Ryuta Ichiki, Ryo Tomizuka, Hiroyasu Nishiguchi, Tatsuro Onomoto, Shuichi Akamine and Seiji Kanazawa	Investigation on local formation of expanded austenite phase by atmospheric-pressure plasma jet
PII.11	114	Sanghamitro Chatterjee and Sudeep Bhattacharjee	Tuning the wettability of metallic surfaces by microwave plasma generated low energy noble gas ion beams
PII.12	127	Andrada Lazea-Stoyanova, Valentina Marascu, Cristian Stancu and Gheorghe Dinescu	Synthesis of titanium particles by RF atmospheric plasma jet: continuous mode vs. pulsed mode
PII.13	133	Neli Bundaleska, Ana Ines Vieitas de Amaral Dias, Edgar Felizardo, Julio Henriques, Francisco Marques Dias, Nenad Bundaleski, Orlando Teodoro, Miroslav Abrashev, Jivko Kissovski, Uros Cvelbar and Elena Tatarova	Plasma based N-graphene synthesis – in-situ and post treatment approaches
PII.14	141	Natalia Babaeva	Reactive fluxes and ion activation energy to particulates in air and on dielectric surfaces
PII.15	142	Leide Lili G. Silva, Nilson A. Ferraz, Vadym Prysiazhnyi and Konstantin Kostov	Surface Properties of Polymer Films obtained by Atmospheric Pressure Plasma Jet on SAE 1020 Steel
PII.16	146	Catalina Quiros, Guillaume Lombardi, Jonathan Mougenot, Michael Redolfi and Khaled Hassouni	Plasma-surface interaction, blister formation and hydrogen retention on ITER relevant materials
PII.17	170	Takayuki Ohta, Atsushi Ishikawa, Akinori Oda and Hiroyuki Kohsaka	Deposition of diamond-like carbon film using high power impulse magnetron sputtering
PII.18	218	Won Chang Lee, Eun Chang Choi and Byungyou Hong	The Characterization of Sputtered Nickel Oxide Thin Films by DC Reactive Sputtering for Application of an Electrochromic device
PII.19	221	Eun Chang Choi, Won Chang Lee and Byungyou Hong	Fabrication of transparent conductive films with Ag mesh patterns using a monolayer of polystyrene shperes
PII.20	235	Veronika Medvecká, Anna Zahoranová, Dušan Kováčik and Mirko Černák	Atmospheric pressure plasma assisted preparation of ceramic submicron fibers
PII.21	244	Jens Harhausen, Jochen Wauer, Detlef Loffhagen and Rüdiger Foest	Investigation of optical emission in the plume of the Advanced Plasma Source in argon-oxygen mixtures
PII.22	245	Wonil Choo and Hyun Jong You	Study on high flow rate F-radical generation by a compact water-cooled surface wave plasma source for remote plasma cleaning process
PII.23	246	Shin-Ichi Aoqui, Fumiaki Mitsugi and Hiroharu Kawasaki	Dependence of electrode materials and gaseous in serpentine plasma for nano particles preparation
PII.24	252	Susumu Toko, Kazuma Tanaka, Kimitaka Keya, Daisuke Yamashita, Hyunwoong Seo, Naho Itagaki, Kazunori Koga and Masaharu Shiratani	Suppression of Si-H2 bond formation at P/I interface in a-Si:H solar cells deposited by multi-hollow discharge plasma CVD
PII.25	268	Masaaki Nagatsu and Masahiro Kimpara	Surface Functionalization of Fluoropolymers with Amino and Carboxyl Groups by Atmospheric Pressure Plasma Jets with Substrate Biasing
PII.26	276	Ana Dias, Edgar Felizardo, Miroslav Abrashev, Amélia Almeida, Júlio Henriques and Elena Tatarova	Direct Synthesis of Nanodiamonds by Ar-H2-CH4 Microwave Discharges
PII.27	282	Artem Shelemin, Andrei Choukourov, Daniil Nikitin, Pavel Pleskunov, Danka Slavinska and Hynek Biederman	Nitrogen-containing plasma polymer nanoparticles produced by means of a gas aggregation cluster source
PII.28	306	Mohamed El Shaer, Hassan Afifi, Mona Mobasher, Milad Samir and Mohamed Habib	Porous nanostructure thin film titanium dioxide synthesized by atmospheric microwave plasma

Poster	ID	Authors	Title
PII.29	326	Jozef Rahel, Tomas Moravek and Martina Ilcikova	The use of thermally stimulated luminescence for rapid assessment of plasma treated particulate materials
PII.30	336	Bianca Hodoroaba, Delia Ciubotaru, Bogdan George Rusu, Alina Chiper, Valentin Pohoata, Ilarion Mihaila and Ionut Topala	Morphological and spectral features of interstellar carbon dust analogues deposited in high power regime DBD
PII.31	376	Anton A. Kobelev, Alexander S. Smirnov, Nikita A. Babinov, Artem M. Dmitriev, Eugene E. Mukhin and Aleksey G. Razdobarin	A Numerical and Experimental Study of Ion Impingement from RF Discharge on the Mirror Surface in Strong Magnetic Field
PII.32	382	Andrey Vladimirovich Samokhin, Dmitriy Evgenievich Kirpichev, Nikolay Vasilievich Alekseev and Mikhail Aleksandrovich Sinayskiy	TiC nanopowder plasma-chemical synthesis with titanium tetrachloride raw material in the DC plasma-arc reactor
PII.33	383	Andrey Anatolievich Nikolaev, Dmitriy Evgenievich Kirpichev, Anatoliy Vladimirovich Nikolaev and Yuriy Vladimirovich Tsvetkov	The temperature of leucoxene melted zone under DC plasma arc anode spot
PII.34	401	Celia L. Rojo Blanco and Stephen Muhl	Synthesis of Metallic Nanoparticles using a Submerged Pulsed Arc
PII.35	407	Veronica Satulu, Valentin Ion, Bogdana Mitu and Gheorghe Dinescu	Dielectric Properties of Magnetron Sputtered PTFE Thin Films
PII.36	411	Andrea Jurov, Nikša Krstulović, Martina Modic, Nataša Hojnik, Anton Nikiforov, Andrea Zille, Christophe Leys and Uroš Cvelbar	Plasma-Laser Assisted Synthesis of Nanoparticles for Antibacterial Coatings
PII.37	413	Seongchan Kang, Rodolphe Mauchauffé and Se Youn Moon	Synthesis and Characterization of Photocatalytic Titanium Oxide Thin Film Deposited on Glass by Atmospheric Pressure Plasma CVD
PII.38	1	Yangyang Fu, Xinxin Wang, Shuo Yang, Xiaobing Zou and Haiyun Luo	Similarity of gas discharges at low pressure in the gaps between two plane-parallel electrodes
PII.39	21	Gennadii Liziakin, Andrey Gavrikov, Ravil Usmanov and Valentin Smirnov	Formation of electrical potential profile in DC reflex discharge
PII.40	106	Loïc Dubois, Freddy Gaboriau, Laurent Liard and Jean Pierre Boeuf	A magnetized RF ion source for space propulsion applications
PII.41	136	Ursel Fantz, Stefan Briefi, Roland Friedl, Caecilia Fröhler, David Rauner and Dirk Wünderlich	Quantification of UV/VUV photon fluxes of hydrogen plasmas by spectroscopy and by collisional radiative modelling
PII.42	169	Toshikio Takimoto, Ryuta Endo, Akira Tonegawa, Kohnosuke Sato and Kazutaka Kawamura	Characteristics of recombination plasma in divergent magnetic field on the linear divertor simulator TPD-Sheet IV
PII.43	199	Ovidiu Vasilovici, Stefan Costea, Bernd S. Schneider, Roman Schrittwieser and Codrina Ionita	Uniform and strongly magnetized plasma using a Halbach array
PII.44	207	Prashant Kumar Barnwal, Satyananda Kar, Ramesh Narayanan, Ashish Ganguli and Ram Dattatraya Tarey	Dependence of anode glow on surrounding geometry in a parallel plate glow discharge plasma
PII.45	224	Yuna Lee, Kyoung-Jae Chung and Y. S. Hwang	Dependence of double layer potential on the properties of anode spot plasma
PII.46	225	Masaharu Shimabayashi, Kazuaki Kurihara and Koichi Sasaki	Effect of discharge tube temperature on the density of N(4So) in a remote nitrogen plasma source
PII.47	247	Sebastian Wilczek, Jan Trieschmann, Julian Schulze, Ralf Peter Brinkmann, Zoltán Donkó and Thomas Mussenbrock	Fine Structure of Ionisation Patterns and Confinement of Energetic Electrons in Asymmetric Capacitive Radio Frequency Discharges
PII.48	249	Susumu Toko, Satoshi Tanida, Kazunori Koga and Masaharu Shiratani	Rise time of Sabatier process using low pressure and low temperature plasma
PII.49	253	Ignacio Gabriel Vicente Gabás, Goesta Mattausch and Ralf Bluethner	Segmented high voltage glow discharge for a controllable ion source
PII.50	274	Romaric Landfried, Thierry Leblanc, Emmanuel Odic and Philippe Teste	Influence of pressure on electrical discharge/arc transition
PII.51	321	Valeriy A. Lisovskiy, Stanislav Dudin, Polina Ogloblina, Nikolay Vusyk, Vladyslav Volkov, Vladimir Yegorenkov and Alexandr Dakhov	Modes of unipolar and bipolar pulsed discharges in CO2
PII.52	323	Mario Lino Da Silva, Bernardo Carvalho, Rafael Rodrigues and Maria Castela	ESTHER: A laser-ignited, combustion-driven, two-stage shock-tube for the simulation of hyperbolic planetary entries
PII.53	332	Victor H. Granados, Mario J. Pinheiro and Paulo A. Sá	EHD thruster discharge simulation on N2-O2 mixture at low pressure

Poster	ID	Authors	Title
PII.54	353	Erik Varberg and Ashild Fredriksen	Effect of permanent magnets on plasma confinement and ion beams from a helicon plasma source
PII.55	359	Adrian Cross, Huabi Yin, Liang Zhang, Wenlong He, Yong Yin, Junping Zhao and Alan Phelps	W-band Extended Interaction Oscillator based on a pseudospark-sourced electron beam
PII.56	372	Irina Schweigert and Michael Keidar	Plasma structures induced by external magnetic field
PII.57	377	Xin Yang, Dmitry Kogut, Jean Marc Layet and Gilles Cartry	Hydrogen low-pressure pulsed plasma: measurement of H atom decay in the post discharge
PII.58	381	Roba Moussaoui, Dmitry Kogut and Jean-Marc Layet	Method of pulsed DC bias for negative-ion production study on surfaces of insulating materials in low pressure H2 plasmas
PII.59	66	Alexander Oreshko, Anna Oreshko and Timur Mavlyudov	Ball lightning as a key for the solution of an energy problem by means of muon-catalyzed fusion
PII.60	238	Mykhailo Vaidulych, Jan Hanus, Stanislav Kadlec, Aleš Marek, Ivan Khalakhan, Ondřej Kylián, Andrei Choukourov and Hynek Biederman	Effect of the magnetic field on formation of Cu nanoparticles during the magnetron sputtering in a gas aggregation source
PII.61	270	Benjamin Seznec, Philippe Dessante, Philippe Teste and Tiberiu Minea	Effect of space charge on electron emission in vacuum
PII.62	293	Sanjeev Kumar Maurya and Sudeep Bhattacharjee	Micro-glass capillary focusing of plasma ion beams and creation of microstructures
PII.63	352	Reenu Gill, Sheetal Punia and Hitendra Malik	Generation of Terahertz Radiation by Beating of Dark Hollow Laser Beams in Magnetized Plasma
PII.64	378	Irina Schweigert, Andrey Alexandrov, Pavel Gugin, Maxim Lavrukhin, Petr Bokhan and Dmitry Zakrevsky	Effect of secondary electron emission on subnanosecond breakdown in high-voltage pulse discharge
PII.65	409	Wei Zhong, Yunlong Liu, Ao Xu and Lei Chen	Visualization of particulates distribution from electrode erosion
PII.66	5	Vladimir Nosenko, Martin Jambor, Sergey Zhdanov and Hubertus Thomas	Dynamics of a complex plasma measured with a 3D light field camera
PII.67	16	Myoung-Jae Lee, Gwanyong Jung and Young-Dae Jung	Mode conversion characteristics of the electrostatic hybrid waves in a magnetized plasma slab
PII.68	35	Nathalie Carrasco and Guy Cernogora	Compared chemical compositions of grains and thin films produced in a CCP plasma
PII.69	144	Laishram Modhuchandra Singh, Dr. Devendra Sharma and Prof. Kaw Predhiman K	Steady equilibrium co-rotating dust vortices in a streaming sheared plasma
PII.70	161	Merlan Dosbolayev, Assan Abdirakhmanov, Tlekkabul Ramazanov and Sergey Maiorov	Dusty plasma structures in gas- metal vapor mixtures
PII.71	308	Wojciech Miloch	Simulations of dust charging and wake formation in magnetized plasmas
PII.72	329	Vincent Garofano, Luc Stafford, Rémi Bérard, Kremena Makasheva and Christine Joblin	Cyclic growth dynamics of nanoparticles in low-pressure rf dusty plasmas
PII.73	399	Brandon Harris and Paul Bryant	Levitation of Dust in a Magnetised RF Plasma
PII.74	43	Francisco J Gordillo-Vázquez, María Passas, Justo Sánchez, Alejandro Luque, Oscar Van Del Velde and Joan Montanya	Remote sensing of plasma phenomena in the upper atmosphere of the Earth by ground-based optical emission spectroscopy
PII.75	124	Chun-Sung Jao, Ye Chen, Matthias Gross, Gregor Loisch, Alberto Martinez de La Ossa, Jacek Niemiec, Jens Osterhoff, Martin Pohl, Frank Stephan and Sergei Vafin	Bell's instability in the laboratory: pre-experiment simulation study
PII.76	260	Alejandro Malagón and Alejandro Luque	Towards a fluid model for the streamer-to-leader transition in lightning channels
PII.77	310	Petr Dohnal, Ábel Kálosi, Štěpán Roučka, Radek Plašil and Juraj Glosík	A study of N2H+ dominated afterglow plasma using cavity ring-down spectroscopy
PII.78	363	Stanislav Chudjak, Frantisek Krcma and Vera Mazankova	PTR-TOF analyzis of glow discharge products in Titan related atmosphere

TOPICAL SESSION, 16.30-17.30, Room 1 (Auditorium)

Elementary processes and fundamental data
Modelling and simulation techniques
High frequency discharges
Thermodynamics and transport phenomena

- 16.30-17.00, F. Esposito (Italy)
  Reactivity, relaxation and dissociation of molecules in plasma modelling
- 17.00-17.30, I. Schneider (France)
  Electron/molecular-cation collisions in cold plasmas: super-excited states at "zero" energy

TOPICAL SESSION, 16.30-17.30, Room 2

High pressure and thermal plasma processing
Non-equilibrium plasmas and microplasmas at high pressures
Thermal plasmas
Plasma wall interactions, electrode and solid/liquid surface effects
Medical, biological, environmental and aeronautical applications

- 16.30-17.00, J. Pawlat (Poland)
  Atmospheric pressure plasmas for agriculture, medicine and surface technology
- 17.00-17.30, K. Kostov (Brazil)
  Atmospheric pressure plasmas for surface and medical applications

SPECIAL SESSION, 17.30-19.30, Room 1 (Auditorium)

- 17.30-17.40, Luís L. Alves (Portugal)
  Opening. Evocation of Carlos Matos Ferreira
- 17.40-18.00, Ron White (Australia)
  Challenges in the kinetic modelling of electrons and ions in gaseous and liquid matter
- 18.00-18.20, Thomas Mussenbrock (Germany)
  Challenges in PIC modelling: electromagnetic description and resonance phenomena
- 18.20-18.40, Juan Pablo Trelles (United States)
  Advances and challenges in fluid flow models of low-temperature plasmas
- 18.40-19.00, Vasco Guerra (Portugal)
  Challenges in the modelling of plasma-surface interaction
- 19.00-19.20, Andrew Gibson (United Kingdom)
  Challenges in the modelling of reactive plasmas: limitations and opportunities in global modelling
- 19.20-19.30, Discussion and closure

WEDNESDAY, July 12

PLENARY SESSION, 09.00-10.30, Room 1 (Auditorium)

- 09.00-09.45, E. Tatarova (Portugal)
  Microwave plasma applied for synthesis of 2D nanostructures
- 09.45-10.30, A. Rousseau (France)
  Surface and volume kinetics of molecules in air depollution processes

TOPICAL SESSION, 11.00-12.10, Room 1 (Auditorium)

Complex and dusty plasmas, ion-ion plasmas, mixed phase plasmas
Collective and nonlinear phenomena
Astrophysical, geophysical and other natural plasmas

- 11.00-11.30, V. Herrero (Spain)
  Plasma generation and processing of interstellar carbonaceous dust analogs
- 11.30-11.50, F.J. Pérez-Invernón (Spain)
  Modelling the chemical and electrical impact of lightning in the upper atmospheric plasma of planetary atmospheres
- 11.50-12.10, K. Sasaki (Japan)
  Bubble formation in the discharge between planar and needle electrodes via laser ablation-induced cavitation bubble

TOPICAL SESSION, 11.00-12.20, Room 2

High pressure and thermal plasma processing
Non-equilibrium plasmas and microplasmas at high pressures
Thermal plasmas
Plasma wall interactions, electrode and solid/liquid surface effects
Medical, biological, environmental and aeronautical applications

- 11.00-11.20, M. Magureanu (Romania)
  Mineralization of 2,4-dichlorophenoxyacetic acid by plasma-ozonation
- 11.20-11.40, B. Vayner (USA)
  Electron temperature of thruster plume plasma in far field
- 11.40-12.00, A. Surov (Russia)
  AC electric arcs burning in and outside of the discharge channels of high voltage three-phase plasma torches
- 12.00-12.20, S. Espinho (Portugal)
  Photoluminescence of plasma produced graphene quantum dots

THURSDAY, July 13

TOPICAL SESSION, 09.00-10.30, Room 1 (Auditorium)

Plasma diagnostic methods
Plasma lamps and radiation sources
Plasma created by external sources of ionization

- 09.00-09.30, P. Veis (Slovakia)
  Simultaneous vacuum UV and broadband UV-NIR plasma spectroscopy for LIBS improvement
- 09.30-09.50, E.V. Barnat (USA)
  Ultrafast laser diagnostics to interrogate high pressure, highly collisional plasma environments
- 09.50-10.10, E. Panousis (Switzerland)
  Active and passive optical diagnostics in a model HV circuit breaker
- 10.10-10.30, A. Rawat (India)
  A novel non-invasive technique for detection and analysis of harmonics in Radio Frequency plasmas

TOPICAL SESSION, 09.00-10.30, Room 2

Plasma processing of surfaces and particles
Plasma power and pulsed power technology, particle sources
Low pressure plasmas

- 09.00-09.30, P. Baroch (Czech Republic)
  Specific plasma phenomena in dual magnetron sputtering system
- 09.30-09.50, I.L. Velicu (Romania)
  High power impulse magnetron sputtering: an overview on the benefits of ultra-short pulse mode
- 09.50-10.10, M. Oshiro (Japan)
  Application of plasma-bullet propagation to hydrophilic treatments of an interconnected porous scaffold
- 10.10-10.30, S. Kajita (Japan)
  Fuzzy nanostructure growth on precious metals by He plasma irradiation

TOPICAL SESSION, 11.00-12.30, Room 1 (Auditorium)

High pressure and thermal plasma processing
Non-equilibrium plasmas and microplasmas at high pressures
Thermal plasmas
Plasma wall interactions, electrode and solid/liquid surface effects
Medical, biological, environmental and aeronautical applications

- 11.00-11.30, I. Jögi (Estonia)
  Plasma and catalyst for the oxidation of NOx
- 11.30-11.50, A.S. Morillo-Candas (France)
  O atom kinetics in CO2 pulsed glow discharges
- 11.50-12.10, S. Ryu (South Korea)
  Control methods of RONS in Dielectric Barrier Discharge
- 12.10-12.30, N. Pinhão (Portugal)
  Measurement of the CH rotational temperature in DBD discharges in CH4/CO2/He mixtures and simulation of the gas temperature

TOPICAL SESSION, 11.00-12.30, Room 2

Elementary processes and fundamental data
Modelling and simulation techniques
High frequency discharges
Thermodynamics and transport phenomena

- 11.00-11.30, P. Papp (Slovakia)
  Electron interactions for plasma diagnostics and modelling
- 11.30-11.50, V. Vermeiren (Belgium)
  A computational chemical kinetics study of a supersonic microwave plasma for CO2 dissociation
- 11.50-12.10, Z. Bonaventura (Czech Republic)
  Effect of runaway electron preionization on discharge breakdown in air at atmospheric pressure: simulation study
- 12.10-12.30, T. Orriere (France)
  Flow characterization of the electro-thermal plume induced by nanosecond repetitively pulsed microplasmas

POSTER SESSION III, 14.00-16.00

Poster	ID	Authors	Title
PIII.1	55	Victor Kartoshkin	Observation of the spin polarization of 87Rb atoms during collisions with oriented metastable helium atoms
PIII.2	87	Susumu Suzuki, Youhei Usui and Haruo Itoh	Determination of collisional quenching rate coefficients of metastable excited atoms Ar(3P2) by Ar and H2O
PIII.3	94	Nicolina Pop, Janos Zsolt Mezei, Florian Colboc, Youssef Moulane, Sebastien Niyonzima, Michel Douglas Epée Epée, Ousmanou Motapon, Felix Iacob, Remus Boata, Vicenzo Laporta, Kalyan Chakrabarti, Jonathan Tennyson and Ioan F. Schneider	Excitation, recombination and dissociation of molecular cations by electron-impact in cold plasmas: Application to H2+, HD+, BeD+and BF+
PIII.4	129	Cyril Van de Steen, Malika Benhenni and Kalus René	Mobility of Kr+ ions in Kr for cold plasma modelling
PIII.5	149	Polina Ogloblina, Antonio Tejero-Del-Caz, Vasco Guerra and Luís L. Alves	Complete and consistent set of electron-neutral scattering cross sections for carbon monoxide
PIII.6	157	Yasuhide Kashiwagi	Role of spectral region of discharge emission on initial electron generation for inducing surface discharge in air
PIII.7	175	Satoru Kawaguchi, Kazuhiro Takahashi and Kohki Satoh	Electron collision cross section set of C2F4 gas
PIII.8	181	David Trunec, Vera Mazankova, Lucie Torokova and Nigel Mason	Simulation of prebiotic atmospheres by atmospheric pressure glow discharge generated in nitrogen-methane gas mixture
PIII.9	185	Igor Korolov, Mate Vass, Detlef Loffhagen, Nuno Pinhão and Zoltan Donkó	Measurements and kinetic computations of electron transport parameters in CO2 in an extended E/N range
PIII.10	196	Juraj Orszagh, Marian Danko, Michal Durian and Stefan Matejcik	Continual radiation of H2 and D2 (a3 Σg+→b3 Σu+) induced by electron impact
PIII.11	204	Fabrizio Esposito, Ernesto Garcia and Antonio Laganà	Comparisons and scaling rules between N+N2 and N2+N2 collision induced dissociation cross sections from atomistic studies
PIII.12	206	Turekhanova Kunduz and Kaliyeva Dameli	Investigation of collisional processes in dense semiclassical plasma
PIII.13	292	Jean-Paul Booth, Olivier Guaitella, A Chatterjee, Sergey Zyryanov, Dmitry Lopaev, Dmitry Voloshin and Tatyana Rakhimova	O2 dissociation in plasma and problem of O2 cross sections set
PIII.14	318	Joao Vargas, Bruno Lopez and Mario Lino Da Silva	A reinvestigation on the energy levels of CO2 up to the dissociation limit
PIII.15	325	Jaime de Urquijo, Eduardo Basurto and Olmo González-Magaña	Mobility of negative ions in H2O-He mixtures
PIII.16	343	Radek Plašil, Artem Kovalenko, Thuy Dung Tran, Serhiy Rednyk, Štěpán Roučka, Petr Dohnal and Juraj Glosík	Probing internal excitation of trapped O+(4S, 2D, 2P) ions by reaction with N2

Poster	ID	Authors	Title
PIII.17	23	Hans Höft and Manfred Kettlitz	On the axial and radial streamer dynamics in dielectric barrier discharges
PIII.18	25	Manfred Kettlitz, Hans Höft and Ronny Brandenburg	Investigation of streamer propagation and discharge development on dielectric surfaces
PIII.19	50	Haruka Suzuki, Yuto Tamura, Yaoki Inomata and Hirotaka Toyoda	Optical measurement of meter-scale microwave line plasma under atmospheric pressure
PIII.20	63	Alexander Kuznetsov, Irina Mursenkova and Irina Znamenskaya	Decay of radiation of the sliding surface discharge and the combined volume discharge
PIII.21	70	Markus Becker, Jens Philipp, Andreas Czerny, Claus-Peter Klages and Detlef Loffhagen	Ignition behaviour of atmospheric-pressure dielectric barrier discharges in argon with admixtures of hexamethyldisiloxane and tetramethylsilane
PIII.22	77	Takashi Miura	Energy dependence of intensity ratio between nitrogen spectral lines of N II and N I from electrostatic discharge in air
PIII.23	96	Ionut Topala and Gabriela Borcia	Time-space behaviour of barrier discharge ionization front in presence of 3D textured dielectric layer
PIII.24	122	Pedro Viegas and Anne Bourdon	Numerical study on the dynamics of He plasma jets with N2 or O2 admixtures
PIII.25	137	Kristaq Gazeli, Gérard Bauville, Michel Fleury, Olivier Neveu, Pascal Jeanney, Stéphane Pasquiers and Joao Santos Sousa	Radial and temporal density profiles of Ar(1s5) metastables in a nanosecond pulsed plasma jet impinging on different dielectric surfaces
PIII.26	152	Panagiotis Svarnas, Maria Mitronika, Dimitrios Athanasopoulos, Epaminondas Mitronikas and Kristaq Gazeli	Controlling Atmospheric-Pressure Plasma Reactive Species Densities by means of Modulated Sinusoidal High Voltage
PIII.27	163	Haruaki Akashi and Tomokazu Yoshinaga	Effect of accumulated charge desorption in atmospheric pressure dielectric barrier discharges
PIII.28	165	Yerbolat Ussenov, Azmuhammed Pazyl, Ainur Akildinova, Merlan Dosbolayev, Maratbek Gabdullin, Talgat Daniyarov and Tlekkabul Ramazanov	Comparative analysis of properties of helium and argon atmospheric pressure plasma jets
PIII.29	179	Jingjing Liu	Research on Active Species Production Mechanism of an Atmospheric He-Water Plasma Jet
PIII.30	193	Nenad Selaković, Jan Voráč, Nevena Puač, Gordana Malović, Pavel Dvořák and Zoran Petrović	Influence of humidity on formation of pulsed atmospheric pressure plasma streamers
PIII.31	212	Yuki Inada, Ryo Ono, Akiko Kumada, Kunihiko Hidaka and Mitsuaki Maeyama	Two-Dimensional Electron Density Distribution over Positive Primary Streamer Propagating in Atmospheric-Pressure Air
PIII.32	234	Xavier Damany, Goran Sretenović, Sylvain Iséni, Vesna Kovačević, Ivan Krstić, Sébastien Dozias, Jean-Michel Pouvesle, Milorad Kuraica and Eric Robert	Comparison of two electric field measurement methods for a kHz microsecond atmospheric pressure plasma jet
PIII.33	257	Kasri Salima, Gérard Bauville, Michel Fleury, Kristaq Gazeli, Joao Santos Sousa, Stéphane Pasquiers, Xavier Aubert, Guillaume Lombardi, Ludovic William and Claudia Lazzaroni	Experimental study of ns pulsed microdischarges arrays reactor in nitrogen
PIII.34	264	Nikita Lepikhin, Nikolay Popov and Svetlana Starikovskaia	Relaxation of electronic excitation in nitrogen discharge plasma at high specific deposited energy
PIII.35	265	Andrew Gibson, Layla Alelyani, Scott Doyle, Jerome Bredin, Jean-Paul Booth, James Dedrick, Timo Gans and Deborah O'Connell	Control of charged species dynamics in atmospheric pressure plasmas using tailored voltage waveforms
PIII.36	269	Sergey Gortschakow, Marc Bogaczyk and Ruslan Kozakov	Discharge properties in gas filled micro voids in XLPE material
PIII.37	271	Marc van der Schans, Joran Savenije, Laurens van Mouche, Mark van Ommeren, Rick Jongen, Wilbert Ijzerman and Sander Nijdam	The memory effect of pulsed plasma jets in He, Ar and N2
PIII.38	278	Constantinos Lazarou, Charalambos Anastassiou, George Georghiou, David Klute and Joachim Franzke	The influence of air impurities on the evolution of plasma species in a capillary helium plasma jet
PIII.39	286	Hasna Guedah, Alyen Abahazem, Nofel Merbahi and Mohamed Yousfi	Rotational, vibrational and electronic temperatures of pulsed corona discharge at atmospheric pressure in humid air
PIII.40	291	A. Sobota, V.V. Kovačević, G.B. Sretenović, I. B. Krstić, B. M. Obradović, M.M. Kuraica, Elmar Slikboer and Olivier Guaitella	Influence of target on electric field in kHz-driven atmospheric pressure plasma jet in Helium
PIII.41	295	Karim Ouaras, Lionel Magne, Pierre Tardiveau, Alexandra Brisset and Stephane Pasquiers	Spatial and temporal analysis of acetone decomposition and subsequent OH formation in nanosecond diffuse discharge

Poster	ID	Authors	Title
PIII.42	297	Pedro Almeida, Nuno Ferreira and Mikhail Benilov	Numerical modelling of glow corona discharges by means of stationary solvers of COMSOL Multiphysics
PIII.43	299	Antonio Mendez, Ana Maria Gomez-Ramirez, Victor Rico, Agustin R Gonzalez-Elipe and Jose Cotrino	Characterization of a ferro-electric packed bed plasma reactor
PIII.44	300	Nuno Ferreira, Pedro Almeida, George Naidis and Mikhail Benilov	Numerical investigation of stability of glow corona discharges and corona-to-streamer transition
PIII.45	334	Susumu Kato, Masanori Fujiwara, Hiromasa Yamada, Yutaka Fujiwara, Satoru Kiyama and Hajime Sakakita	Kinetics of Neon Atmospheric Pressure Plasma Jets
PIII.46	347	Clémence Tyl, Xi Lin, Nicolas Naudé, Simon Dap and Nicolas Gherardi	Memory effect in a dielectric barrier discharge in N2: phenomena in the gas bulk versus phenomena on the dielectric surfaces
PIII.47	349	Xi Lin, Clémence Tyl, Simon Dap, Nicolas Naudé and Nicolas Gherardi	Memory effect in Dielectric Barrier Discharge in N2/O2 mixture: absolute atom density measurements by Two-photon Absorption Laser-Induced Fluorescence (TALIF) spectroscopy
PIII.48	371	Pierre Tardiveau, Alexandra Brisset and Pascal Jeanney	Dynamics of a nanosecond diffuse pin-to-plane discharge – Effects of pin material at high overvoltage
PIII.49	391	Tatsuya Misawa	Influence of water temperature on stability of three dimensional atmospheric plasma using water-dielectric multi layer electrode
PIII.50	412	Ante Hecimovic, Emile Carbone, Gert Willems, Kerstin Sgonina and Jan Benedikt	Ionic composition of the spatial afterglow of an atmospheric pressure He/CO2 plasma jet by mass spectrometry
PIII.51	9	M. Kh. Gadzhiev, M. A. Sargsyan, D. V. Tereshonok and A. S. Tyuftyaev	Investigation of arc binding to the hafnium cathode at atmospheric pressure
PIII.52	60	Jean Quéméneur, Pierre Freton, Jean-Jacques Gonzalez and Patrice Joyeux	Experimental and numerical study of electrical arc movement
PIII.53	75	Margarita Baeva, Dirk Uhrlandt and Anthony Murphy	Collisional-radiative model of iron vapour released in thermal arc plasma from molten electrodes
PIII.54	126	Jean Quéméneur, Jean-Jacques Gonzalez, Pierre Freton and Patrice Joyeux	Experimental and numerical study of arc commutation and restrikes in Low-Voltage Circuit Breaker (LVCB)
PIII.55	182	Marina Lisnyak, Mario Cunha, Jean-Marc Bauchire and Mikhail S. Benilov	Numerical modelling of high-pressure arc discharges: matching LTE arc core with the electrodes
PIII.56	183	Marina Lisnyak, Moussa Chnani, Alain Gautier and Jean-Marc Bauchire	Behaviour of a short electric arc between bus-bars electrodes: numerical and experimental study
PIII.57	220	Julien Annaloro, Philippe Teulet, Arnaud Bultel, Yann Cressault and Alain Gleizes	Collisional-radiative modelling for multi-temperature plasma composition calculation
PIII.58	240	Nelson Almeida, Mário Cunha and Mikhail Benilov	Numerical modelling of high-pressure arc discharges: computing anode heating voltage
PIII.59	243	Oleksiy Hurba and Milan Hrabovsky	Diagnostics of vicinity of thermal plasma jet by electric probes
PIII.60	370	Vidhi Goyal, P. Bharathi and G. Ravi	Optical Emission Spectroscopy Investigations in a Non-Transferred DC Plasma Torch
PIII.61	10	Koichi Takeda	Development and further improvement of a heat-treatment system using arc driven by alternating magnetic field
PIII.62	52	Keisuke Tsuchida, Norio Tsuda and Jun Yamada	Property of high-pressure Ar plasma induced by femtosecond laser
PIII.63	102	Ravil Amirov, Emin Isakaev and Marina Shavelkina	Direct synthesis of hydrogenated graphene using decomposition of hydrocarbons in plasma jet
PIII.64	168	Valery Pavlov and Jaroslav Triaskin	Anomalous nonlinear effects in a weakly ionized gas exposed to a strong shock wave
PIII.65	202	Rahul Kumar, Ramesh Narayanan, Ram Dattatraya Tarey and Ashish Ganguli	Study of variation of hysteresis effects in self–excited amplitudes of a coaxial DC electrode system
PIII.66	223	Yuri Golubovskii, Aleksei Siasko, Dmitry Kalanov and Vladimir Nekuchaev	Experimental studies of mechanisms of positive column constriction in argon and neon
PIII.67	248	Matthew Bieniek, Mikhail Benilov and Pedro Almeida	Self-consistent modelling of spot patterns on anodes of DC glow discharges
PIII.68	289	Roberto Morales, Manuel D. Barriga-Carrasco and Ignacio Moreno	Instantaneous charge state of Uranium projectiles in fully ionized plasmas from energy loss experiments

Poster	ID	Authors	Title
PIII.69	316	Mikhail Tsventoukh and Andrey Kaziev	On steep gradients in plasmas confined at convex-concave magnetic field lines near the minimum in the longitudinal adiabatic invariant
PIII.70	327	John Allen and Joseph Gibson	The collisionless transient pinch

TOPICAL SESSION, 16.30-17.30, Room 1 (Auditorium)

Plasma diagnostic methods
Plasma lamps and radiation sources
Plasma created by external sources of ionization

- 16.30-17.00, O. Versolato (Netherlands)
  Generating EUV light from tin plasma for chip manufacturing
- 17.00-17.30, A. V. Vodopyanov (Russia)
  A point-like discharge, sustained by powerful radiation of terahertz gyrotron

TOPICAL SESSION, 16.30-17.30, Room 2

High pressure and thermal plasma processing
Non-equilibrium plasmas and microplasmas at high pressures
Thermal plasmas
Plasma wall interactions, electrode and solid/liquid surface effects
Medical, biological, environmental and aeronautical applications

- 16.30-17.00, R. Dussart (France)
  Microhollow cathode discharges on silicon devices
- 17.00-17.30, F. Tochikubo (Japan)
  Simulation of glow discharge electrolysis for material processing in liquid

POSTER SESSION IV, 17.30-19.30

Poster	ID	Authors	Title
PIV.1	4	Jae Young Kim, Eun Seok Seo, Hyunmin Kim, Dong-Kwon Lim and Dae Won Moon	Development of ambient desorption/ionization source using ultrafast laser and nonthermal atmospheric pressure helium plasma jet for ambient imaging mass spectrometry
PIV.2	32	Zachary Wiersma, Zhen Dai, Sung-Jin Park and J. Gary Eden	Mechanistic studies of H2 production from H2O using a low power Al/Al2O3 microplasma chip reactor
PIV.3	34	Masafumi Ito, Masashi Okachi, Jun-Seok Oh, Hiroshi Hashizume and Masaru Hori	Effect of nitric oxide radicals on the proliferation of budding yeast
PIV.4	48	Youhwan Shin	Flow Circulation and Ozone Concentration Generated by Plasma Actuator in a Closed Circuit Pipe
PIV.5	56	Sharmin Sultana, Nicolas Nuns, Pardis Simon, Jean-Marc Giraudon, Jean-Francois Lamonier, Nathalie De Geyter and Rino Morent	Enhancement of catalytic activity and stability during PPC for total oxidation of TCE in humid air over Fe-doped cryptomelane
PIV.6	71	Yodai Ishida and Hiroto Masunaga	Water treatment using micro-bubble assisted three dimensionally integrated micro solution plasma
PIV.7	89	Kazuhiro Takahashi, Satoru Kawaguchi, Kohki Satoh, Hideki Kawaguchi, Igor Timoshkin, Martin Given and Scott MacGregor	Rate equation analysis of ROS/RNS in plasma-treated water
PIV.8	93	Takamichi Hirata, Chihiro Kobayashi, Hiroki Watanabe, Sayaka Matsuda, Satoshi Wakita, Akira Mori, Yoshiki Kudo and Mitsutoshi Iwashita	Emergency & critical care medicine for brain disease by irradiation / inhalation of atmospheric pressure plasma flow
PIV.9	110	Iulia-Elena Vlad, Cristiana Martin, Akos Roland Toth, Judit Papp and Sorin Dan Anghel	Plasma activated water – stability and antimicrobial effect

Poster	ID	Authors	Title
PIV.10	117	Nevena Puac, Nikola Skoro, Kosta Spasic, Suzana Zivkovic, Milica Milutinovic, Vuk Sasic, Gordana Malovic and Zoran Lj. Petrovic	Activity of catalase enzyme in P. tomentosa seeds after direct plasma treatments and treatments with plasma activated water
PIV.11	123	Quirion Follador, Douglas Leite and Alexei Essiptchouk	Gasification of crude glycerine: experimental and theoretical study
PIV.12	130	Monica Magureanu, Daniela Dobrin and Mihai Gidea	Effect of non-thermal plasma on the germination and early growth of tomato seeds
PIV.13	138	Artur Akopdzhanov, Konstantin Artemyev, Nikolay Bogachev, Alexey Davydov, Irina Egorova, Namik Gusein-Zade, Igor Kossyi and Nikolay Shimanowskii	Microwave capillary discharge as way to influence biological objects
PIV.14	150	Dimitrios Athanasopoulos and Panagiotis Svarnas	Human Stratum Corneum Epidermidis modification by means of atmospheric-pressure cold plasma treatment
PIV.15	154	Koichi Sasaki and Kazunori Zaima	Structure at the top of premixed burner flame with the superposition of pulsed dielectric barrier discharge
PIV.16	158	Sangheum Eom, Sung-Young Yoon, Changho Yi, Hyeongwon Jeon, Seong Bong Kim, Suk Jae Yoo and Seungmin Ryu	Study on the Generation Rate of Chemical Reactive Species in Dielectric Barrier Discharge depending on External Flow Rate
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FRIDAY, July 14

TOPICAL SESSION, 09.00-10.30, Room 1 (Auditorium)

Elementary processes and fundamental data
Modelling and simulation techniques
High frequency discharges
Thermodynamics and transport phenomena

- 09.00-09.30, F. Ghezzi (Italy)
  Modelling and interpretation of micrometric dust behaviour in tokamaks
- 09.30-09.50, T. Minea (France)
  3D modelling of negative ion extraction in ITER-like NBI via massive parallel calculations
- 09.50-10.10, W. Yang (China)
  Kinetic study on gas discharge
- 10.10-10.30, C. Rutjes (Netherlands)
  Realistic 3D particle modelling of discharge inception near ice particles and other dielectric objects

TOPICAL SESSION, 09.00-10.30, Room 2

High pressure and thermal plasma processing
Non-equilibrium plasmas and microplasmas at high pressures
Thermal plasmas
Plasma wall interactions, electrode and solid/liquid surface effects
Medical, biological, environmental and aeronautical applications

- 09.00-09.30, D. V. Tereshonok (Russia)
  Pre-breakdown phenomena and discharges in gas-liquid systems
- 09.30-09.50, M. Janda (Slovakia)
  Comparative cross-correlation spectroscopy study of positive and negative polarity transient spark discharge in ambient air
- 09.50-10.10, A. Gómez-Ramírez (Spain)
  On the influence of ferroelectric materials in a packed-bed DBD reactor
- 10.10-10.30, O. Stepanova (Russia)
  DBD plasma jet in helium, argon and nitrogen: energy balance and bactericidal activity

VON ENGEL AND FRANKLIN PRIZE AND STUDENT PRIZES, 11.00-12.10, Room 1 (Auditorium)

- 11.00-11.25, ICPIG 2017 Prize Ceremony
- 11.25-12.10, U. Czarnetzki (Germany)
  Distribution Functions in Non-Equilibrium Plasmas

CLOSURE, 12.10-12.30, Room 1 (Auditorium)