

Preliminary Schedule of IWM2006

Alfried Krupp Kolleg, Martin-Luther-Str. 14

Monday, 08 May 2006

16:00 -19:00 Registration

19:00 – 21:00 Get together

Tuesday, 09 May 2006

Session 1. Basics (theory, simulation and experiments) (Chair: K. Becker)

08:00 -08:15 Opening

08:15 – 09:00 Plenary Talk 1 L.L. Raja, USA, “Simulation of direct-current microdischarges for application in electro-thermal class of small satellite propulsion devices”

09:00 – 09:30 Invited Lecture 1 S. Hamaguchi, Japan, “Theory of breakdown phenomena in super critical fluids”

09:30 – 10:00 Invited Lecture 2 K. Schoenbach, USA, ” Characteristics of high pressure cathode boundary layer discharges”

10:00 – 10:30 Coffee Break

Session 2. Basics (theory, simulation and experiments) (Chair: J.-D. Liao)

10:30 – 11:00 Invited Lecture 3 S. Gershman, USA, Progress Report “Pulsed electrical Discharges in Bubbled Water”

11:00 – 11:30 Invited Lecture 4 K.V. Kozlov, Russia, “Progress in spectroscopic diagnostics of barrier discharges”

11:30 – 11:45 Short Lecture 1 J.J. Shi, Great Britain, “Cold atmospheric microplasmas generated in a narrow electrode gap of several sub-millimeters”

11:45 – 12:00 Short Lecture 2 Th. Callegari, France, “Microhollow Cathode Sustained Discharges: Macro-cell experiments and modelling”

12:00 – 13:30 Lunch Break

ISC Meeting

Session 3. Basics (theory, simulation and experiments) (Chair: K. Tachibana)

- 13:30 – 14:00 Invited Lecture 5 M. Bowden, UK, "Ignition processes in microdischarges"
- 14:00 – 14:30 Invited Lecture 6 K. Uchino, Japan, "Collective Thomson Scattering Diagnostics of Microplasmas for the EUV Source"
- 14:30 – 14:45 Short Lecture 3 D.-L. Biborosch, Romania, "Normal and abnormal microhollow cathode discharges"
- 14:45 – 15:00 Short Lecture 4 Sh. Ishii, Japan, "Control of Microplasma with Miniature Gas Flow in Air"
- 15:00 - 15:30 Coffee Break

Session 4. Basics (theory, simulation and experiments) (Chair: J. Mizeraczyk)

- 15:30 – 16:00 Invited Lecture 7 J. Rahel, Czech Republic, "The transition from a filamentary dielectric barrier discharge to a diffuse barrier discharge in air at atmospheric pressure"
- 16:00 – 16:15 Short Lecture 5 M. Iwasaki, Japan, "Measurement of 3D Distribution of CF₂ Radical in Non-equilibrium Atmospheric Pressure Pulsed Micro-gap Plasma"
- 16:15 – 16:30 Short Lecture 6 E. Panousis, France, "Electrical Yield of Two Atmospheric Pressure DBD devices"
- 16:30 – 16:45 Short Lecture 7 J. Hopwood, USA, "Microplasma trapping of nanoparticles"
- 16:45 – 17:00 Short Lecture 8 J. Asmussen, USA, "Plasma-Assisted Combustion in a Miniature Microwave Plasma Torch Applicator"
- 17:00 – 20:30 Poster Session and Buffet

List of Posters

Basics (theory, simulation and experiments)

- P01 T. Terayama, H. Yoda and T. Sakurai, University of Yamanashi, Kofu, Japan
Spatiotemporal measurement of wall voltage and charge in a plasma display panel (PDP)-like discharge
- P02 Y. Murata and T. Sakurai, University of Yamanashi, Kofu, Japan
Observation of surface dynamics of Ar metastables in a barrier discharge using a sub-Doppler evanescent-wave spectroscopy
- P03 S. Ibuka, T. Furuya, R. Mikami, K. Ogura, K. Yasuoka and S. Ishii, Tokyo Institute of Technology, Tokyo, Japan
Compact pulsed power generator utilizing nonlinear transmission line for stable microplasma generation
- P04 N. Shirai, S. Ibuka, K. Yasuoka and S. Ishii, Tokyo Institute of Technology, Tokyo, Japan
Pulsed discharges with an ethanol droplet for microplasma generation
- P05 M. Radmilović-Radjenović, Z.Lj. Petrović, P. Maguire and C. Mahony, Institute of Physics, Belgrade, Serbia and Montenegro
Electrical breakdown for devices with nanometer to micron gaps
- P06 N. Tarasenko, A. Butsen, M. Nedelko and N. Savastenko, Institute of Molecular and Atomic Physics, Minsk, Belarus / Institute for Low Temperature Plasma Physics, Greifswald, Germany
Spectroscopic characterization of microplasmas produced by laser ablation of solids in liquids
- P07 S. Amiranashvili, S. Gurevich and H.-G. Purwins, Institut für Angewandte Physik, Münster, Germany
Slow behavior of electrical discharges
- P08 H.-G. Purwins, S. Amiranashvili, H. Bödeker and L. Stollenwerk, Institut für Angewandte Physik, Münster, Germany
Universal behaviour of self-organized patterns in gas-discharge
- P09 L. Stollenwerk, S. Amiranashvili, J.-P. Boeuf and H.-G. Purwins, Institut für Angewandte Physik, Münster, Germany
Numerical description of self-organised pattern formation in glow mode ac gas-discharge
- P10 S. Uchida and F. Tochikubo, Tokyo, Metropolitan University, Tokyo, Japan
Investigation of breakdown properties for Ar and N₂ microplasmas
- P11 K. Kitano, A. Hironori and S. Hamaguchi, Center for Atomic and Molecular Technologies, Osaka University, Suita, Osaka, Japan
RF barrier discharges on the liquid water surface

P12 Y. Ohtsu, K. Eura and H. Fujita, Department of Electrical and Electronic Engineering, Saga University, Saga, Japan

Breakdown characteristics of atmospheric pressure microplasma produced by dielectric barrier discharge with high-secondary-electron-emission oxides

P13 M. Radmilović-Radjenović, Z. Petrović and B. Radjenović, Institute of Physics, Belgrade, Serbia and Montenegro

Particle in cell simulation of an electron cyclotron plasma source

P14 H. Fujiyama, D. Kurogi, Y. Furue, H. Uchida, Y. Nitta, T. Nakatani, F. Iza and J.K. Lee, Nagasaki University, Nagasaki, Japan

Low-pressure microplasmas

P15 S. Mukaigawa, T. Aizawa, K. Takaki and T. Fujiwara, Iwate University, Morioka, Japan

Influence of gas flow on self-organization of micro-gap atmospheric-pressure glow discharge

P16 K. Tomita, A. Funakoshi, S. Araki, T. Yamada and K. Uchino, Kyushu University, Fukuoka, Japan

Investigation of collective Thomson scattering measurement for high Z laser produced plasma in the atmosphere

P17 C.-P. Klages, C. Berger, M. Eichler, K. Nagel and M. Thomas, Fraunhofer-Institut für Schicht- und Oberflächentechnik (IST), Braunschweig, Germany

Atmospheric-pressure plasma deposition of coatings in microchannels – investigation of kinetic aspects

P18 V. Burakov, N. Savastenko, M. Tarasenko, P. Misakov and A. Nevar, Institute of Molecular and Atomic Physics, Minsk, Belarus / Institute for Low Temperature Plasma Physics, Greifswald, Germany

Pulsed discharge microplasmas in liquids for nanoparticles production

P19 Y. Sakiyama and D.B. Graves, University of Tokyo, Tokyo, Japan

Simulation of an atmospheric pressure RF microplasma

P20 K. Takaki, R. Ohmukai, S. Mukaigawa, T. Fujiwara, H. Mase and N. Sato, Iwate University, Morioka, Japan

Self-quenching characteristics of capacity-coupled discharge in atmospheric air

P21 S. Cetiner, P. Stoltz and P. Messmer, Tech-X Corporation, Boulder CO, USA

Kinetic investigations of pseudospark configurations

P22 J.H. Lozano-Parada and W.B.J. Zimmerman, The University of Sheffield, Chemical and Process Engineering Department, Sheffield, UK

Simulation of a microplasma discharge

P23 R. Dussart and L. Overzet, GREMI-CNRS/University of Orléans, Orléans, France

Electrical and spectroscopic study of DC microdischarges made in alumina

P24 O. Guaitella, S. Celestin, A. Bourdon and A. Rousseau, LPTP, École Polytechnique, CNRS, Palaiseau, France

Dynamic of the current filaments amplitude distribution function in a cylindrical DBD: influence of TiO₂

P25 M. Eichler, A. Dziubek, C. Berger, M. Kurrat and C.-P. Klages, Institut für Hochspannungstechnik und Elektrische Energieanlagen der TU Braunschweig, Braunschweig, Germany

Investigation of ignition conditions of atmospheric pressure discharges in sealed microfluidic systems

P26 V.I. Arkhipenko, A.A. Kirillov, L.V. Simonchik, A.A. Tsyhanok and S.M. Zgirouski, Institute of Molecular and Atomic Physics NASB, Minsk, Belarus

Characteristics of the dc self-sustained atmospheric pressure glow discharge

P27 V.I. Arkhipenko, L.V. Simonchik and A.A. Tsyhanok, Institute of Molecular and Atomic Physics NASB, Minsk, Belarus

The atmospheric pressure glow discharge in a three-electrode configuration

P28 M. Sawada, T. Tomai, T. Ito, H. Fujiwara and K. Terashima, The University of Tokyo, Kashiwa, Japan

Micrometer-scale dc discharge plasma in high-pressure H₂O and Xe environments including supercritical fluid

P29 D.-L. Biborosch, S. Popescu, D. Luca and L. Mares, Department of Plasma Physics, Al.I. Cuza University, Iasi, Romania

On the possible axial magnetic fields effects on microhollow cathode discharges

P30 K. Hirai, T. Okada, T. Kato, T. Kaneko and R. Hatakeyama, Department of Electronic Engineering, Tohoku University, Sendai, Japan

Investigation of gas-liquid interface in microplasmas contacting with solvent

P31 A. Hatta, Q. Zou, T. Ishibashi, H. Ooi and H. Yoshimura, Kochi University of Technology, Kochi, Japan

Large current density and short pulse length gas discharge for microplasma production

P32 A. Kono, T. Shibata and M. Aramaki, Nagoya University, Nagoya, Japan

Basic characteristics of atmospheric-pressure Ar microgap discharge excited by microwave

P33 J. Walsh, J.J. Shi and M. Kong, Department of Electronic and Electrical Engineering, Loughborough University, Loughborough, UK

Contrasting characteristics of nonthermal atmospheric plasma jets with sinusoidal and pulsed voltage excitation

P34 T. Gans, T. Mussenbrock, K. Niemi, S. Reuter, V. Schulz-von der Gathen and H.F. Döbele, Ruhr-Universität Bochum, Germany

Diagnostics and modeling of an rf-excited micro atmospheric pressure plasma jet

P35 X. Aubert, V. Puech, G. Beauville, Th. Callegari, L.C. Pitchford, J.P. Bœuf, N. Sadeghi and A. Rousseau, LPTP, École polytechnique, CNRS, Palaiseau, France
Investigation of a three electrode configuration for microplasma generation

P36 A. Descoedres, Ch. Hollenstein, G. Wälder, R. Demellayer and R. Perez, École Polytechnique Fédérale de Lausanne (EPFL), Centre de Recherches en Physique des Plasmas, Lausanne, Switzerland
Experimental characterization of electrical discharge machining plasmas

P37 R. Abo, S.N. Abolmasov, T. Shirafuji and K. Tachibana, International Innovation Center, Kyoto University, Kyoto, Japan
Spatio-temporal measurement of surface charge on dielectric electrodes in a coplanar-electrode cell

P38 S. Stauss-Ueno, H. Miyazoe, M. Sai, T. Tomai and K. Terashima, Department of Advanced Materials Science, Graduate School of Frontier Science, The University of Tokyo, Tokyo, Japan
Size effects in an UHF inductively coupled microplasma jet

P39 P. Bruggeman, C. Leys and J. Vierendeels, Ghent University, Ghent, Belgium
Electrical breakdown of bubbles in capillaries

P40 E. Aldea, H. de Vries and M.C.M. van de Sanden, Fuji Photo Film B.V., TRL Laboratory, Tilburg, The Netherlands
A method for uniform atmospheric plasma generation

P41 H. Rahaman, J. Urban, R. Stark and K. Frank, Physics Department I, University of Erlangen-Nuremberg, Erlangen, Germany
Development of a miniature pressurized spark gap switch for high repetitive short

P42 B.-J. Lee, K. Frank, I. Petzenhauser and K.P. Giapis, Physics Department, University of Erlangen-Nuremberg, Erlangen, Germany
Comparison of VUV-excimer emission from planar microhollow cathode discharges and microdischarges in metal capillaries

P43 B.-J. Lee, K. Frank, I. Petzenhauser, L.C. Pitchford and Th. Callegari, Physics Department, University of Erlangen-Nuremberg, Erlangen, Germany
Microhollow Cathode discharges in xenon: observations of two distinct pressure regimes

P44 I. Petzenhauser, B.-J. Lee, U. Ernst and K. Frank, Physics Department, University of Erlangen-Nuremberg, Erlangen, Germany
Spectroscopic investigations of high-pressure microhollow cathode discharges

P45 E.A. Azizov, A.I. Emelyanov and V.A. Yagnov, RF SRC “Troitsk Institute for Innovation and Fusion Research”, TRINITI, Troitsk, Russia
Peculiarities of the film discharge along the surface of submerged water streams

P46 D. Staack, B. Farouk, A.F. Gutsol and A.A. Fridman, Drexel University, Mechanical Engineering Department, Philadelphia PA, USA
Rotational and vibrational temperature measurements of atmospheric pressure normal glow plasma discharges in air, nitrogen, argon, and helium

P47 T. Farouk, B. Farouk, A. Gutsol and A. Fridman, Department of Mechanical Engineering and Mechanics, Drexel University, Philadelphia PA, USA

Two dimensional simulations of an atmospheric pressure micro glow discharge

P48 A. Agiral and J.G.E. Gardeniers, MESA+ Institute for Nanotechnology, University of Twente, Enschede, the Netherlands

Characterization of an atmospheric pressure nonequilibrium surface barrier discharge microplasma with liquid electrode

P49 T. Hoder, D. Chorvat, J. Rahel and M. Cernak, Masaryk University, Brno, Czech Republic

High-speed camera study of coplanar barrier discharge in air, nitrogen and argon

P49a C.M.O. Mahony, Nanotechnology research Institute, University of Ulster, Newtownabbey, BT37 0QB United Kingdom

The Scaling of Micro Hollow Cathode Plasmas under RF Excitation

Biomedical implementations

P51 V. Gostev and D. Dobrynin, Petrozavodsk State University, Petrozavodsk, Russia

Medical microplasmatron

P52 N. Georgescu, A. Calugaru, C.P. Lungu, A. Lungu, V. Zaroschi, L. Cremer, A. Herold and G. Szegli, National Institute for Laser, Plasma and Radiation Physics, Magurele, Bucharest, Romania

Treatment of human cells with the plasma needle

P53 H.M.L. Tan, T. Akagi and T. Ichiki, Institute of Engineering Innovation, School of Engineering, The University of Tokyo, Tokyo, Japan

Localized hydrophilization of biocompatible materials' surface using microplasma for controlling cell-surface interactions

P54 X.B. Deng, J.J. Shi, D. Liu, S. Perni, G. Shama and M. Kong, Dept of Electronic and Electrical Eng, Loughborough University, Loughborough, UK

Effects of bacterial physiological state and surface population in nonthermal atmospheric microplasma inactivation

P55 P. Slavicek, M. Klima, J. Janca, A. Brablec, J. Kadlecova and P. Smekal, Department of Physical Electronics, Faculty of Science, Masaryk University, Brno, Czech Republic

RF plasma pencil - diagnostics of plasma and biomedical application

P56 P. Hensley, P. Kurunczi and K. Becker, Stevens Institute of Technology, Hoboken NJ, USA

A dielectric barrier discharge (DBD) device for the cleaning and sterilization of pipettes in life science applications

Progress in applications

P57 S. Kawata, R. Sonobe, M. Nakamura, S. Hasumi and S. Miyazaki, Utsunomiya University, Utsunomiya, Japan

Micro ion beam control in laser foil interaction

P58 A. Okino, G. Ohba, H. Miyahara, M. Watanabe and E. Hotta, Tokyo Institute of Technology, Yokohama, Japan

DC-RF hybrid microplasma source for elemental analysis

P59 S. Kurosawa, H. Aizawa, H. Harigae, H. Suzuki and K. Terashima, AIST, Tsukuba, Japan

Research and development of microplasma polymerization technology for chemical and biosensors

P60 J. Grundmann, S. Müller, R.J. Zahn, A. Quade and H. Steffen, Institut für Niedertemperatur-Plasmaphysik, Greifswald, Germany

Treatment of soot by dielectric barrier discharges in air

P61 A. Freilich, J. Lopez, P. Carlucci, L.C. Pitchford, A. Belkind, G. Vezzu and K. Becker, St. Peter's College, Jersey City NJ, USA

Effect of methane contamination on the efficiency of the ozone generation in a dielectric barrier discharge (DBD)*

P62 Y. Suga, M. Sone, K. Totani and T. Watanabe, Tokyo University of Agriculture and Technology, Tokyo, Japan

Novel carbon materials synthesized from supercritical carbon dioxide induced by plasma discharge

P63 S. Müller, R.-J. Zahn, J. Grundmann and M. Langner, Institut für Niedertemperatur-Plasmaphysik, Greifswald, Germany

Plasma treatment of aerosols and odours

P64 J. Narendra, D. Tran, J. Zhang, T. Grotjohn, J. Asmussen and N. Xi, Michigan State University, East Lansing MI, USA

Local area materials processing using a microstripline-based miniature microwave discharge

P65 K. Teranishi, D. Inada, S. Suzuki and H. Itoh, Chiba Institute of Technology, Narashino, Japan

VUV emission characteristics from piezoelectric transformer-based excimer lamp

P66 A. Majumdar, J. Schäfer, J. Meichsner and R. Hippler, Institut für Physik, Universität Greifswald, Germany

Chemical compositions and bond structure of carbon-nitride films deposited by CH₄/N₂ barrier discharge

P67 Y. Noma, K. Higashi, H. Aizawa, S. Kurosawa, H. Yatsuda, M. Nara and K. Terashima, Department of Advanced Materials Science, Graduate School of Frontier Sciences, The University of Tokyo, Chiba, Japan

Local surface modification of polymer using low temperature microplasma

P68 K. Ogata, J. Kim and K. Terashima, Department of Advanced Materials Science, Graduate School of Frontier Sciences, The University of Tokyo, Chiba, Japan
Development of sophisticated strip-line microwave micro plasma

P69 Q. Zou, T. Ishibashi, H. Ooi, H. Yoshimura and A. Hatta, Department of Electronic and Photonic Systems Engineering, Kochi University of Technology, Kochi, Japan
Synthesis of carbon nanomaterials using short pulse microplasma in SEM

P70 M. Klima, P. Slavíček, V. Bursikova, J. Havel, Z. Spalt and P. Vanek, Department of Physical Electronics, Faculty of Science, Masaryk University, Brno, Czech Republic
RF plasma pencil - characteristics and application

P71 H. Miyazoe, S. Stauss-Ueno, M. Sai and K. Terashima, Department of Advanced Materials Science, Graduate School of Frontier Sciences, The University of Tokyo, Kashiwa, Japan
Generation of an ultra-high-frequency microplasma jet under high vacuum condition

P72 S. Kudrjashov, A. Ryabov, E. Sirotkina, G. Shchegoleva and A. Suslov, Institute of Petroleum Chemistry, Tomsk, Russia
Oxidative conversion of C₁-C₈ hydrocarbons in DBD reactor

P73 S. Kudrjashov, A. Ryabov, E. Sirotkina, G. Shchegoleva and A. Suslov, Institute of Petroleum Chemistry, Tomsk, Russia
Production of isomer hydrocarbons in a barrier discharge reactor

P74 K.H. Kunze, C.M. Herring and J.G. Eden, Laboratory for Optical Physics and Engineering, Department of Electrical and Computer Engineering, University of Illinois, Urbana IL, USA
Miniaturized dielectric barrier discharge device: long-lived gas sensor in air at atmospheric pressure

P75 M. Jasiński, M. Goch, Z. Zakrzewski and J. Mizeraczyk, Centre for Plasma and Laser Engineering, The Szewalski Institute of Fluid-Flow Machinery, Polish Academy of Sciences, Gdansk, Poland
Low-power atmospheric-pressure microwave source of microdischarges

P76 M. Hähnel, V. Brüser and H. Kersten, Institute of Low Temperature Plasma Physics, Greifswald, Germany
Deposition of silicon containing layer on micro particles using dielectric barrier discharges

P77 H. Khatun, A.K. Sharma, P.K. Barhai and H.K. Dwivedi, Electron Tube Area, Central Electronics Engineering Research Institute, Pilani, India
Investigation of electric field distribution in a dielectric barrier discharge at low pressure

P78 M.S. Hou, C.C. Weng, Y.T. Wu, J.D. Liao and J.-E. Chang, Department of Materials Science and Engineering; Substantial Environment Research Center, National Cheng Kung University, No. 1, University Road, Tainan, Taiwan
Plasma modification on chitosan hydrogel beads to improve metal ions adsorption

P79 C.-J. Chen, J.-E. Chang, L.-C. Chiang, J.-D. Liao and P.-H. Shih, National Cheng Kung University, Tainan, Taiwan
Surface modification of waste LCD panel by microwave oxygen plasma

Wednesday, 10 May 2006

Session 5. Biomedical implementations (Chair: K.-D. Weltmann)

08:15 – 09:00 Plenary Talk 1 E. Stoffels, The Netherlands, "Cold gas plasma for tissue modification at a cellular level"

09:00 – 09:30 Invited Lecture 1 C.-P. Klages, Germany, "Examples of microplasma-based surface technological processes for biomedical applications"

09:30 – 10:00 Invited Lecture 2 N. Abramzon, USA, „Biofilm Destruction by RF High-Pressure Cold Plasma Jet"

10:00 – 10:30 Coffee Break

Session 6. Biomedical implementations (Chair: K.H. Schoenbach)

10:30 – 11:00 Invited Lecture 1 R. Hatakeyama, Japan, "DNA Encapsulation inside Carbon Nanotubes by Microplasmas"

11:00 – 11:30 Invited Lecture 4 K.R. Stalder, USA, "Some physics and chemistry of electrosurgical devices"

11:30 – 12:00 Invited Lecture 5 J. Ehlbeck, Germany, "Decontamination of heat sensitive materials by means of atmospheric pressure plasmas"

12:00 – 12:15 Short Lecture 1 Y. Akishev, Russia, "Non-thermal plasma sources at atmospheric pressure and its use for sterilisation of liquids and dry surfaces"

12:15 – 12:30 Short Lecture 2 J. Goree, USA, "Disinfection of S. mutans Bacteria Using a Plasma Needle at Atmospheric Pressure"

12:30 – 12:45 Short Lecture 3 T. Akitsu, Japan, "A study on plasma sterilization at normal atmospheric pressure"

12:45 – 13:00 Short Lecture 4 S.-J. Park, USA, "Flexible Al/Al₂O₃/SiO₂ Microcavity Plasma Arrays: Large Surface Area Ultraviolet Source for Biomedical Applications"

13:00 – 14:30 Lunch Break

14:00 – 21:00 Ship tour on the Baltic Sea incl. Conference Dinner

Thursday, 11 May 2006

Session 7. Progress in applications (Chair: K.R. Stalder)

- 08:15 – 09:00 Plenary Talk 1 U. Kogelschatz, Switzerland, “Applications of Microplasmas and Microreactor Technology”
- 09:00 – 09:30 Invited Lecture 1 J.-D. Liao, Taiwan, “Perspective on the Development of Microplasma Technology from Current Applications of Plasma Processing”
- 09:30 – 09:45 Short Lecture 1 K. Becker, USA, “Methane and Hydrogen Generation from Hydrocarbons in a Microplasma Reactor”
- 09:45 – 10:00 Short Lecture 2 Y. Noma, Japan, “Development of Dielectric Barrier Discharge (DBD) Cryo Microplasma Jet under Atmospheric Pressure: Generation, Characterization, and Application”
- 10:00 – 10:30 Coffee Break

Session 8. Progress in applications (Chair: U. Kogelschatz)

- 10:30 – 11:00 Invited Lecture 2 A. Rousseau, France, "DC Microplasmas: Self-pulsing regime and large volume generation"
- 11:00 – 11:30 Invited Lecture 3 O. Sakai, Japan, "Plasma photonic crystals in 2D arrays of microplasmas"
- 11:30 – 11:45 Short Lecture 3 D. Dudek, Germany, “Efficiency Studies of Direct Current (DC) Atmospheric Pressure Plasma Jets at Ambient Air”
- 11:45 – 12:00 Short Lecture 4 B. Goeksel, Germany, “Pulsed Dielectric Barrier Plasma Actuators for Active Flow Control”
- 12:00 – 13:30 Lunch Break

Session 9. Progress in applications (Chair: C.-P. Klages)

- 13:30 – 14:00 Invited Lecture 4 G. Font, USA, “Recent Progress in Dielectric Barrier Discharges for Aerodynamic Flow Control”
- 14:00 – 14:30 Invited Lecture 5 A. Maximov, Russia, "Physics, Chemistry and Applications of AC diaphragm discharge and other related discharges in electrolytes"
- 14:30 - 14:45 Short Lecture 5 S.-J. Park, USA, “Linear Arrays of Ceramic Microcavity Plasma Devices”
- 14:45 – 15:00 Short Lecture 6 N. Lucas, USA, “Microplasma Source for Microstructured Surface Treatment at Atmospheric Pressure”
- 15:00 - 15:30 Coffee Break

Session 10. Progress in applications (Chair: K. Tachibana)

15:30 – 16:00 Invited Lecture 6 R. Foest, Germany, “RF Capillary Jet - a Tool for localized Surface Treatment”

16:00 – 16:15 Short Lecture 7 T. Nozaki, Japan, “Synthesis of nc-Si dots using atmospheric pressure microplasma”

16:15 – 16:30 Short Lecture 8 T. Tomai, Japan, “Deposition of carbon and carbon/metal composite systems by using barrier discharge plasmas in supercritical fluid”

16:30 – 16:45 Short Lecture 9 Sh. Kurosawa, Japan, “STW Gas Sensors Using Microplasma-Polymerized Films”

16:45 – 17:00 Closing workshop