



XVIII

GD 2010

Greifswald Germany



18th International Conference on Gas Discharges and Their Applications
GD 2010 – Scientific Programme

Sunday, 5th September 2010

3:00-7:00 pm	Registration INP, 4 th floor
7:00-9:00 pm	Welcome Reception INP, 4 th floor

On subsequent days, the Registration Desk will be situated in the Conference Office in the Town Hall, Anklamer Str. 103, where all invited lectures and paper presentations will be held.

Please be prepared to have your presentation on CD-ROM or a portable USB-stick in powerpoint format (or pdf format for presentations). We will provide a PC for your presentations. It is not possible to use own computers.

Monday, 6th September 2010

8:00-9:00 am	Registration Town Hall	
9:00-9:45 am	Opening Ceremony Kaisersaal	
9:45-10:30 am	Invited Lecture Kaisersaal <i>Yasunori Tanaka (Japan)</i> Issues On Understanding Of Arcs And Thermal Plasmas: Non-Equilibrium Effects And Rapid Ablation Of Solid Materials Chairman: K.-D. Weltmann	
10:30-11:00 am	Tea and Coffee Break	
	Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	A1 - Kaisersaal Arcs Chairman: A. B. Murphy	B1 - Rubenowsaal Corona, Barrier and Surface Discharges Chairman: K. Hidaka
11:00-11:15 am	Determination Of The Dielectric Recovery Inside Insulating Nozzles Concerning Gas Flow <i>A. Kurz, M. Seeger, D. Eichhoff, A. Schnettler</i>	Measurement of Atomic Nitrogen under Atmospheric Pressure Pulsed Corona Discharge in N ₂ /O ₂ Mixed Gas Using TALIF <i>Y. Teramoto, R. Ono, T. Oda</i>
11:15-11:30 am	SLF Interruption Performance Influenced By Location Of Capacitor Connected Between Contacts Of SF6 Gascircuit Breaker <i>S. Nishiwaki, M. Nozawa, H. Mizoguchi, N. Kato, M. Toyoda</i>	Vibrational And Translational Temperature In The Afterglow Of Pulsed Positive Corona Discharge <i>R. Ono, A. Komuro, Y. Nakagawa, Y. Teramoto, T. Oda</i>

11:30-11:45 am	Verification Of The CFX Code For The Calculation Of Electric Arcs And Thermal Plasmas <i>S. Paquette, J.-Y. Trépanier, E. Petro</i>	Absorption Of Photoionizing Radiation Of Corona Discharges In Synthetic Air With CO ₂ Admixture <i>A. Haljaste, M. Aints, R. Kägo, T. Plank</i>		
11:45-12:00 am	Pressurisation Characteristics Of Polymeric Interruption Media <i>R. J. Brookes, J. W. Spencer</i>	Surface Treatment Of TiO ₂ Electrode For Dye-Sensitized Solar Cells Using Low-Temperature And Low-Energy Dielectric Barrier Discharge In Air <i>Y. Teramoto, T. Shiono, R. Ono, T. Oda</i>		
12:00-12:15 pm	High Current Arcs In Magnetic Fields <i>T. Werder Schläpfer, M. Schwinne</i>	Surface Barrier Discharge Development In Air Investigated With High Spatial And Temporal Resolution <i>H. Grosch, T. Hoder, K.-D. Weltmann, R. Brandenburg</i>		
12:15-12:30 pm	Thermal Interruption Capabilities Of CO ₂ Gas And CO ₂ -Based Gas Mixtures <i>T. Uchii, A. Majima, T. Koshizuka, H. Kawano</i>	Investigation Of A Striated Microdischarge In Argon Barrier Discharges At Atmospheric Pressure <i>T. Hoder, M. M. Becker, H. Grosch, D. Loffhagen, J. Schäfer, Ch. Wilke, R. Brandenburg</i>		
12:30-1:25 pm	Lunch Delegates wishing to have a full meal may do so at Town Hall. The city centre is not far away. The cost of lunch is not included as delegates will have differing requirements.			
1:25-2:10 am	<p>Invited Lecture Kaisersaal <i>Ronny Brandenburg (Germany)</i> Investigation Of Discharge Development And Plasma Parameters By Means Of Fast Optical And Spectroscopical Methods Chairman: K. Hidaka</p> <p>Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>A2 - Kaisersaal Arcs Chairman: Y. Tanaka</p> </td> <td style="width: 50%; vertical-align: top;"> <p>B2 - Rubenowsaal Corona, Barrier and Surface Discharges Chairman: Z. Guan</p> </td> </tr> </table>		<p>A2 - Kaisersaal Arcs Chairman: Y. Tanaka</p>	<p>B2 - Rubenowsaal Corona, Barrier and Surface Discharges Chairman: Z. Guan</p>
<p>A2 - Kaisersaal Arcs Chairman: Y. Tanaka</p>	<p>B2 - Rubenowsaal Corona, Barrier and Surface Discharges Chairman: Z. Guan</p>			
2:15-2:30 pm	Combined Ordinary Diffusion Coefficients For SF ₆ - C ₂ F ₄ Mixtures <i>Y. Cressault, A. Gleizes</i>	Spatio-Temporally Resolved Spectroscopic Diagnostics Of The Filamentary And Diffuse Modes Of Barrier Discharges In Argon/Nitrogen Mixtures At Atmospheric Pressure <i>K. V. Kozlov, G. S. Fedoseev, H.-E. Wagner</i>		

2:30-2:45 pm	Optimization Of Pressure Relief In SF ₆ Circuit Breakers <i>M. Khanali, K. Niayesh</i>	Residual Charge Distribution Of Surface Discharge In SF ₆ <i>A. Kumada, K. Hidaka</i>
2:45-3:00 pm	Modelling Of Low Current Turbulent Nozzle Arcs With Temperature Gradient Correction <i>H. Y. Wang, Y. Y. Zhan, J. D. Yan, M. T. C. Fang</i>	Two-Dimensional Potential And Charge Distributions On Insulator With Propagating Negative Surface Leader <i>D. Tanaka, M. Sakuta, S. Matsuoka, A. Kumada, K. Hidaka</i>
3:00-3:15 pm	Measured And Simulated SF ₆ Mixing Behaviour <i>R. Bini, N. T. Basse, M. Seeger</i>	Experimental Investigation Of Dielectric Barrier Impact On Breakdown Voltage Enhancement Of Copper Wire-Plane Electrode Systems <i>E. Foruzan, M. Ziaee-Nezhad, A. A. Shayegani-Akmal, K. Niayesh</i>
3:15-3:45 pm	Tea and Coffee Break	
	Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	A3 - Kaisersaal Arcs Chairman: Y. Tanaka	B3 - Rubenowsaal Corona, Barrier and Surface Discharges Chairman: Z. Guan
3:45-4:00 pm	High-Voltage Circuit-Breaker Simulations In The Case Of Thermo-Chemical Non Equilibrium <i>S. Nichele, K. Bousoltane, G. Gaudart, G. Tchien, Y. Burtschell</i>	Domain Mechanism Of Electrical Pulse Breakdown <i>A. G. Oreshko</i>
4:00-4:15 pm	Influence Of Combustion On Polymer Arc Interruption <i>R. J. Brookes, J. W. Spencer</i>	Flashover Characteristics Of CF ₃ I On The Dielectric Surface <i>T. Takeda, S. Matsuoka, A. Kumada, K. Hidaka</i>
4:15-4:30 pm	Computational Arc And Fluid Dynamics Simulation Of Spatial Dielectric Strength For Large Current Interruption In High-Voltage Circuit Breakers <i>H. Urai, M. Koizumi, Y. Ooshita, N. Yaginuma, M. Tsukushi, Y. Tanaka</i>	Full Multi Grid Technique For The Solution Of Elliptic Equations In Streamer Simulation <i>O. Eichwald, S. Kacem, H. Bensaad, O. Ducasse, K. Charrada, M. Yousfi</i>
4:30-4:45 pm	Investigation Of Low-Current Arc Interruption Performance Of A Non-SF ₆ Interrupter Unit Operating With Polymeric Materials <i>H. M. Looe, J. E. Humphries, J. W. Spencer</i>	Shock Wave And Gas Dynamics Simulation In Positive Point-To-Plane Air Corona Discharge <i>S. Kacem, O. Ducasse, O. Eichwald, N. Renon, H. Bensaad, K. Charrada, M. Yousfi</i>

4:45-5:00 pm	Computational Investigation Of Thermal Interruption Capability Of 145kV Gas Circuit Breaker <i>Y. S. Cho, H. K. Kim, J. K. Chong, Y. H. Oh, K. D. Song, W. Y. Lee</i>	
5:00-5:15 pm	Radiative Transfer Calculation In SF ₆ Thermal Plasmas <i>H. Z. Randrianandraina, Y. Cressault, A. Gleizes</i>	
5:15-5:30 pm	Break	
5:30 pm	Workshop - Rubenowsaal Switching In SF ₆ And Its Future Chairman: M. Seeger	
7:00 pm	Visit IPP	

Tuesday, 7th September 2010

8:00-8:45 am	Invited Lecture Kaisersaal <i>Vittorio Colombo (Italy)</i> Plasma Arc Cutting Technology: Simulation And Experiments Chairman: A. Gleizes	
8:45-9:00 am	Break	
	Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	A4 - Kaisersaal Arcs Chairman: M. Fang	B4 - Rubenowsaal Corona, Barrier and Surface Discharges Chairman: M. Yousfi
9:00-9:15 am	Importance Of SF ₆ -Air Gas Data For Pressure Calculation Due To Fault Arcs In Electrical Installations <i>K. Anantavanich, G. J. Pietsch, D. Eichhoff</i>	Negative Corona Discharge In CO ₂ : Numerical Simulation And Experiments <i>K. Yanallah, F. Pontiga, H. Moreno, A. Castellanos</i>
9:15-9:30 am	Interactive Visualised Computer Simulation Of Switching Arcs <i>J. D. Yan, Y. Y. Zhan, H. Wang, M. T. C. Fang</i>	Numerical Study Of Atmospheric Pressure DBD In Helium: The Townsend And Glow Discharges <i>X. Wang, A. Yang, M. Rong, D. Liu, D. Wang, Y. Wu</i>

9:30-9:45 am	Measurement Of 3D Turbulent Mixing In A Small-Scale Circuit Breaker Model <i>N. T. Basse, R. Bini, M. Seeger, P. Stoller, T. Votteler, B. Wüthrich, C. Kissing</i>	Calculation Of Potential Distribution To Composite Insulators With Semiconductor-Glazed Shapes By Finite Element Method <i>L. Min, W. Li-Ming, G. Zhi-Cheng</i>
9:45-10:00 am	Evaluation Of Thermal Breaking Capability Of Gas Circuit Breakers <i>S. Tokoyoda, K. Kamei, D. Yoshida, H. Ito</i>	Power Electronic Supply Systems For Non-Thermal Plasma Sources <i>M. Hołub, S. Kalisiak, T. Jakubowski, M. Balcerak</i>
10:00-10:15 am	Experimental Investigation On The Effect Of Vacuum Arc In Removing Oxide Layer On Metal Surface <i>Z. Q. Shi, Q. J. Yuan, R. H. Zhao, S. L. Jia, L. J. Wang</i>	Effect Of Humidity On Discharge Inception And Propagation Over An Ice Surface <i>S. Farokhi, M. Farzaneh, I. Fofana</i>
10:15-11:00 am	Tea and Coffee Break	
	Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	A5 - Kaisersaal Arcs Chairman: M. Seeger	B5 - Rubenowsaal Corona, Barrier and Surface Discharges Chairman: J. W. Spencer
11:00-11:15 am	Optical Mirage Effect In A Free Burning Arc <i>E. Langlois-Bertrand, J.-M. Bauchire, C. De Izarra</i>	Rotational Temperature Of AC Discharge Formed On An Ice Surface Using OH Vibrational Bands <i>A. Nekahi, M. Farzaneh</i>
11:15-11:30 am	CFD Calculation Of Pressure Rise And Propagation Depending On Arc Energy In A Closed Container <i>M. Iwata, S. Tanaka, T. Ohtaka, T. Miyagi, T. Amakawa, K. Anantavanich, G. J. Pietsch</i>	Electric Fields On And In The Proximity Of A Two Dimensional Aerofoil Surface <i>J. E. Jones</i>
11:30-11:45 am	Measurements And Simulation Of Pressure Rise In The Container With Opened Pipe Due To Fault Arc <i>T. Miyagi, S. Tanaka, M. Iwata, T. Ohtaka, T. Tadokoro, T. Amakawa</i>	Time Resolved Propagation Of A Positive Capillary Discharge In Air At Atmospheric Pressure <i>P. Le Delliou, P. Tardiveau, P. Jeanney, G. Bauville, F. Jorand, S. Pasquiers</i>
11:45-12:00 am	Switching Arcs – Pitfalls In Modelling And Simulation <i>S. Kosse, B. Barbu, A. W. H. Hauser, F. Berger</i>	Nature Of Luminous Body Produced By Pulsed Discharge On An Electrolyte Solution In The Atmosphere – Results On Appearances – <i>N. Hayashi, H. Sasaki, T. Mohri, T. Kajiwara, T. Tanabe</i>

12:00-12:15 pm	Arc Images During Small Capacitive Current Interruption With HV Air-Break Disconnectors <i>Y. Chai, P. A. A. F. Wouters, R. T. W. J. Van Hoppe, R. P. P. Smeets</i>	Investigation On Altitude Correction Factor Of Corona Inception Voltage Of AC Transmission Lines Based On The Mobile Corona Cage <i>X. Bian, Y. Chen, Y. Liu, L. Gu, Y. Yang, X. Wu, L. Wang, Z. Guan</i>
12:15-12:30 pm	Convolutd Arc Column Formation With Moving Electrodes <i>L. M. Shpanin, G. R. Jones, J. W. Spencer, J. E. Humphries</i>	Breakdown Along Quartz And Ceramic Surfaces In High Pressure Xenon Atmosphere <i>M. Kettlitz, M. Wendt, S. Peters, A. Kloss</i>
12:30-1:25 pm	Lunch Delegates wishing to have a full meal may do so at Town Hall. The city centre is not far away. The cost of lunch is not included as delegates will have differing requirements.	
1:25-2:10 pm	Invited Lecture Kaisersaal <i>Mohammed Yousfi (France)</i> Fundamental Processes And Basic Data In Non Thermal Atmospheric Pressure Plasmas For Environmental And Biomedical Applications Chairman: A. B. Murphy Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	A6 - Kaisersaal Arcs Chairman: J. Mizeraczyk	K1 - Rubenowsaal Fundamental Processes and Cross-Sections Chairman: T. Klinger
2:15-2:30 pm	Investigation Of New Nozzle Geometries And Their Influence On The Interruption Behaviour For Gas Circuit Breaker <i>A. Kurz, J. C. Kahlen, M. Tang, M. Hoffacker, A. Schnettler</i>	Mechanism Of Fast Gas Heating In A Non-equilibrium Weakly Ionized Air Discharge Plasma At High Electric Fields <i>N. L. Aleksandrov, S. V. Kindysheva, M. M. Nudnova, A. Y. Starikovskii</i>
2:30-2:45 pm	Flexible Pulsed DC- Source For Investigations Of HVDC Circuit Breaker Arc Resistance <i>M. M. Walter, C. M. Franck</i>	Nonequilibrium Plasma In Liquid Water - Dynamics Of Generation And Quenching <i>A. Starikovskiy, Y. Yang, Y. I. Cho, A. Fridman</i>
2:45-3:00 pm	Electrode Erosion By Arc Discharges In Air <i>E. Fjeld, S. T. Hagen</i>	Krypton Excimers Formation Between 200 And 300 K Following Selective Excitation Of The Kr(5s) Resonant Or Metastable States <i>F. Marchal, G. Jabbour, P. Rodriguez Akerreta, N. Sewraj, M. Yousfi</i>

3:00-3:15 pm	Simulation Of Arc Characteristics In Miniature Circuit Breaker <i>M. Rong, F. Yang, Q. Shi, Z. Liu, R. Ma, X. Lin, W. Gu</i>	Measured And Calculated Electron Transport Coefficients For H ₂ O And N ₂ -H ₂ O <i>M. Yousfi, J. De Urquijo, A. Bekstein, E. Basurto, O. Eichwald, J. L. Hernández-Ávila, M. Benhenni, A. M. Juarez Reyes, N. Merbahi</i>
3:15-3:30 pm	Two-Temperature Modeling Of A DC Plasma Torch In Atmospheric Pressure Argon Gas <i>M. Baeva, D. Uhrlandt</i>	Pulsed Townsend Technique In Electronegative Gases <i>D. A. Dahl, C. M. Franck</i>
3:30-3:45 pm	Tea and Coffee Break	
	<p>Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.</p> <p>A7 - Kaisersaal Arcs Chairman: J. Mizeraczyk</p>	
3:45-4:00 pm	Influence Of Plasma Torch Power Modulation On Plasma Jet Temperature Distributions <i>J. Hlína, J. Šonský</i>	
4:00-4:15 pm	Net Emission Coefficients For Argon-Iron Plasmas With Stark Widths Scaled To A Welding Arc Experiment <i>M. Wendt, H. Schöpp, D. Uhrlandt</i>	
4:15-4:30 pm	Characterization Of The Thermal Plasma Water-Argon Arcjet By Optical Emission Spectroscopy <i>A. Mašláni, V. Sember</i>	
4:30-4:45 pm	Study Of The High-Current Phase Of A Pulsed Gas Metal Arc Welding Process By Emission Spectroscopy <i>M. E. Rouffet, M. Wendt, G. Goett, R. Kozakov, H. Schoepp, K. D. Weltmann, D. Uhrlandt</i>	
4:45-5:15 pm	Break	
5:15 pm	Workshop - Rubenowsaal Metal Vapour In Thermal Arcs Chairman: A. B. Murphy	optional Visit INP / University - Institute of Physics (Meeting points: 5 pm at INP respectively at Institute of Physics)
7:00 pm	Mayor of Greifswald's Reception at the City Hall, Am Markt (admission by ticket only)	

Wednesday, 8th September 2010

8:00-8:45 am	Invited Lecture Kaisersaal <i>Jen-Shih Chang (Canada)</i> Recent Development of Pulsed Arc Electrohydraulic Discharge Techniques for Drinking and Wastewater Treatments Chairman: M. Yumoto	
8:45-9:00 am	Break	
	Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	A8 - Kaisersaal Arcs Chairman: D. Uhrlandt	F1 - Rubenowsaal Environmental and Medical Applications Chairman: J.-S. Chang
9:00-9:15 am	Modelling Of Gas–Metal Arc Welding Considering Metal Vapour And Shielding Gas Mixture <i>M. Schnick, U. Fuessel, M. Hertel, S. Rose, A. Spille-Kohoff, A. B. Murphy</i>	Characterisation Of A Cold Intermittent Negative DC Corona Discharge Plasma For Biomedical Applications <i>R. Bussiahn, R. Brandenburg, T. Gerling, E. Kindel, T. Kocher, H. Lange, N. Lembke, Th. Von Woedtke, K.-D. Weltmann</i>
9:15-9:30 am	Studies Of Ablation Models For Plasma Modelling In A Capillary Discharge <i>R. Li, S. Jia, A. B. Murphy, Y. Zhang, X. Li</i>	Bacteria Inactivation Effect Of Ions Generated By DC Corona Discharge <i>D. Dobrynin, A. Fridman, G. Friedman, A. Starikovskiy</i>
9:30-9:45 am	The Improved Designing Of A Composite Bushing <i>D. Shuheng, P. Wenbo, L. Yan, J. Jianzhong</i>	Innovative Setup For Generating An Atmospheric Pressure DBD In Long Thermolabile Flexible Tubes <i>M. Polak, J. Winter, M. Stieber, U. Schnabel, J. Ehlbeck, K.-D. Weltmann</i>
9:45-10:00 am	The Influence Of Metal Foil On The Practical Composite High Voltage Bushing <i>L. Yan, D. Shuheng, J. Jian-Zhong</i>	Microsecond Thermal Plasma Jet Generation For Biomedical Applications <i>D. Dobrynin, A. Fridman, A. Starikovskiy</i>
10:00-10:15 am	Nonequilibrium Of The “Thermal” Plasma Due To Radiation Effects In Electric Arcs <i>V. A. Zhovtyansky, Y. I. Lelyukh, Y. V. Tkachenko</i>	NO _x Treatment With Sliding Discharge Plasmas <i>M. Schmidt, R. Brandenburg, R. Basner, K.-D. Weltmann</i>
10:15-11:00 am	Tea and Coffee Break	

	<p>Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.</p> <p>F2 - Kaisersaal Environmental and Medical Applications Chairman: K.-D. Weltmann</p>
11:00-11:15 am	Pulsed Multichannel Discharge Array In Water With Stacked Circular Disk Electrodes <i>Y. Yang, H. Kim, Y. I. Cho, A. Fridman, A. Y. Starikovskiy</i>
11:15-11:30 am	Properties Of Synthetic Gas Produced By Plasma Gasification Of Biomass <i>M. Hlina, M. Hrabovsky, M. Konrad, V. Kopecky, T. Kavka, H. Lorcet</i>
11:30-11:45 am	Solid And Gaseous By-Products From Thermal Plasma Treatment Of Stormwater Pond Sediment Under Non-Transferred And Partial Transferred Operating Modes <i>O. L. Li, Y. Guo, J. S. Chang</i>
11:45-12:00 am	Decomposition Of Phenol In An Aqueous Solution By Pulsed Discharge <i>K. Satoh, H. Itabashi, K. Iwasaki, H. Itoh</i>
12:00-12:15 pm	Study Of Plasma Bullets And Micro Structures Generated By A Pulsed Plasma Gun <i>V. Sarron, E. Robert, S. Dozias, M. Vandamme, J. M. Pouvesle</i>
12:15-12:30 pm	Theoretical Evaluation Of Negative Wire-Cylinder Corona Discharge Properties In Humid Synthesis Gas <i>T. Hammer</i>
12:30 pm	<p>Wednesday afternoon excursion Excursion to Stralsund Ozeaneum (lunch not included) or Sailing Trip (lunch included) For delegates and accompanying persons who attend the excursion to the Stralsund Ozeaneum it is possible to have lunch in the Town Hall.</p> <p>Meeting Point - Town Hall Sailing trip: 12:45 pm Ozeaneum: 1:00 pm</p>
7:00 pm	Barbecue (INP)

Thursday, 9th September 2010

8:00-8:45 am	Invited Lecture Kaisersaal <i>Christine Charles (Australia)</i> Low Pressure Expanding Plasmas Applied To Electric Propulsion, Astrophysical Objects And Nanotechnology Chairman: S. Stangherlin	
8:45-9:00 am	Break	
	Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	C1 - Kaisersaal Glow and Breakdown Chairman: A. Robledo-Martinez	E1 - Rubenowsaal Low Pressure Plasmas and Applications Chairman: R. Brandenburg
9:00-9:15 am	Leader Propagation In Non-Uniform Background Fields In SF ₆ <i>M. Bujotzek, M. Seeger</i>	Analysis Of Electron Density In Oxygen RF Plasma By Means Of 160 GHz Microwave Interferometry <i>C. Küllig, K. Dittmann, J. Meichsner</i>
9:15-9:30 am	Impulse Partial Discharges And Breakdown Of CF ₃ I In Highly Non-Uniform Field <i>N. M. Nguyen, A. Denat, N. Bonifaci, O. Lesaint, M. Hassanzadeh</i>	Radiation Trapping And The Measurement Of Metastable Density By Optical Emission Spectroscopy <i>V. P. Sushkov, H. T. Do, R. Hippler</i>
9:30-9:45 am	Influence Of CF ₃ I On The Number Of Supplied Electrons Under High Pressure Nitrogen <i>M. Yumoto, S. Hamano, T. Suzuki, T. Iwao</i>	Laser Atom Absorption Spectroscopy In The Cathode Region Of A DC Glow Discharge With Thermionic Cathode <i>J. Winter, H. Lange</i>
9:45-10:00 am	Analysis Of Breakdown Characteristics Of Vapors In Micro-Bubbles Formed In Insulating Mineral Oils Under Electrical Stress <i>V. M. Atrazhev, I. V. Timoshkin, S. J. MacGregor, M. J. Given, M. P. Wilson</i>	Charged Particle Flow Modeling For Stationary Plasma Accelerators <i>A. Plokhikh, G. Shishkin, A. Shishkin, G. Soganova</i>
10:00-10:15 am	Complex Study Of Glow Discharge In Modification Processes <i>V. A. Zhovtyansky, V. O. Khomych, Y. I. Lelyukh, V. G. Nazarenko, A. V. Ryabtsev, O. V. Anisimova</i>	Triboplasma Generation Through Discharging Of Gas Due To Triboelectrification <i>K. Nakayama</i>
10:15-10:30 am	Experimental Study On The Discharge Path Selection Under Two Phase Mixtures <i>H. Zhenghao, D. Heming, X. Huaili, B. Jing, Y. Fusheng, W. Lei, L. Jin</i>	Novel Method To Produce Catalysts For Oxygen Reduction Reaction By Dual Plasma Process <i>C. Walter, S. Müller, V. Brüser, A. Quade, K.-D. Weltmann</i>

10:30-10:45 am		Large-Scaled ECR Line Plasma Production By Microwave In A Narrowed Rectangular Waveguide <i>H. Shindo, Y. Kimura, T. Hirao</i>
10:45-11:00 am	Tea and Coffee Break	
	Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	D1 - Kaisersaal High Pressure Plasmas and Applications Chairman: R. Wolf	H1 - Rubenowsaal Light Sources Chairman: A. Gleizes
11:00-11:15 am	A Three-Dimensional Model Of The Arc And Weld Pool In Gas-Metal Arc Welding <i>A. B. Murphy</i>	Optical Thickness Of The Plasma In A Medium Pressure Mercury Lamp <i>A. Voronov</i>
11:15-11:30 am	Plasma Enhanced Combustion In Methane-, Ethane-, Propane- And Butane-Air Mixtures Below Self-Ignition Threshold <i>L. Wu, J. Lane, N. P. Cernansky, D. L. Miller, A. Fridman, A. Y. Starikovskiy</i>	Studies On The Effect Of Hydrogen In Xenon Based DBD For Light Sources <i>A. N. Dagang, S. Bhosle, G. Zissis, A. Corazza, V. Massaro</i>
11:30-11:45 am	Plasma Spray Recycling Of Zeolite Waste To Create Micro- And Nanostructured Mineral Fibre <i>R. Kezelis, V. Valincius, V. Grigaitiene, M. Milieska, V. Mecius</i>	AC Ignition Of HID Lamps <i>A. Sobota, J. H. M. Kanters, F. Manders, E. M. Van Veldhuizen, M. Haverlag</i>
11:45-12:00 am	Temperature And Electron Density Determination From Radiance Measurements In An Ablation Controlled PTFE Arc Considering Radiation Absorption <i>H. Schneidenbach, R. Kozakov, D. Uhrlandt</i>	Exact Determination Of Light Emission Characteristics In Stabilized High Pressure Gaseous Arcs <i>M. Khanali, K. Niayesh, E. Hashemi, A. R. Naeini</i>
12:00-12:15 pm	Non Thermal Arc Processing Of Methanol And Ammonia <i>K. Arabi, O. Aubry, A. Khacef, J. M. Cormier</i>	
12:15-12:30 pm	Electrohydrodynamic Flow Generation With/ Without Electronegative Gas <i>N. Takeuchi, Y. Saitou, K. Yasuoka</i>	
12:30-1:25 pm	Lunch Delegates wishing to have a full meal may do so at Town Hall. The city centre is not far away. The cost of lunch is not included as delegates will have differing requirements.	

1:25-2:10 pm	Invited Lecture Kaisersaal <i>Jerzy Mizeraczyk (Poland)</i> High-Pressure Microwave Plasmas And Their Applications For Gas Treatment Chairman: R. Wolf	
	Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	D2 - Kaisersaal High Pressure Plasmas and Applications Chairman: J. E. Jones	J1 - Rubenowsaal Test Techniques and Diagnostics Chairman: G. R. Jones
2:15-2:30 pm	Experimental Study And Modeling Of A Waveguide-Based Microwave Plasma Source <i>M. Baeva, A. Bösel, J. Ehlbeck, D. Loffhagen, W. Buscher, R. Janzen</i>	Electron Density Determination By Means Of Tuneable 50 GHz And 150 GHz Interferometers <i>J. Ehlbeck, K. Rackow, M. Andrasch K.-D. Weltmann</i>
2:30-2:45 pm	Analysis Of An Argon Glow Discharge At Atmospheric Pressure <i>M. M. Becker, D. Loffhagen</i>	A New Diagnostic Tool To Measure The Electron Energy Distribution Function In Capacitive Mode Plasmas <i>H. Shindo, K. Kusaba, Y. Nakazaki</i>
2:45-3:00 pm	The Main Species And Chemical Reactions In Low-Temperature Atmospheric Pressure HE+O ₂ Plasmas <i>D. X. Liu, M. Z. Rong, X. H. Wang, F. Iza, P. Bruggeman, M. G. Kong</i>	3D Distribution Of Significant Oscillations In Thermal Plasma Jet <i>J. Gruber, Z. Sekerešová, J. Hlína, J. Šonský</i>
3:00-3:15 pm	Three Dimensional Numerical Modelling Of Streamers In Air At Atmospheric Pressure Incorporating Photoionisation Phenomena <i>L. Papageorgiou, G. E. Georghiou</i>	3D Reconstruction Of Thermal Plasma Jet Radiation By Inverse Radon Transformation <i>Z. Sekerešová, J. Hlína, J. Šonský</i>
3:15-3:30 pm	Simulation Of Thermal And Chemical Relaxation In A Post-Discharge Air Corona Reactor <i>M. Meziane, J. P. Sarrette, O. Eichwald, O. Ducasse, M. Yousfi</i>	Characterisation Of Partial Discharge Signals Using A Chromatic Approach <i>M. Ragaa, J. W. Spencer, G. R. Jones, A. G. Deakin</i>
3:30-4:00 pm	Tea and Coffee Break	
4:00 pm	Workshop - Rubenowsaal Diagnostics Technique For Discharge Phenomena On Non-Thermal Plasmas And Liquid Solution Plasmas Chairman: T. Oda	
7:00 pm	Reception Conference Banquet (Pomeranian State Museum)	
7:30 pm	Conference Banquet (Pomeranian State Museum) Entertainment by the University Choir and the Choir So la la	

Friday, 10th September 2010

8:00-8:45 am	Invited Lecture Kaisersaal <i>John J. Lowke (Australia)</i> Lightning – Stepped Leaders And Ball Lightning Chairman: J. W. Spencer	
8:45-9:00 am	Break	
	Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.	
	M1 - Kaisersaal Measurement Techniques Chairman: J. Meichsner	L1 - Rubenowsaal Emerging and Topical Applications of Gas Discharges Chairman: H.-E. Wagner
9:00-9:15 am	3-D Particle Tracking Velocimetry And Accelerometry In Thermal Plasma Jet <i>J. Sonsky</i>	Improvement Of SF ₆ Gas Insulation System By Applying Thick Dielectric-Layered Electrode <i>S. Kainaga, M. Yoshimura, T. Tsurimoto, H. Muto, O. Kisanuki, K. Inami, H. Hama</i>
9:15-9:30 am	Spectral Selective Control-Unit For The Pulsed Welding-Arc <i>G. Gött, H. Schöpp, G. Heinz, F. Hofmann</i>	Low Temperature Plasma Assisted Dissociation Of Hydrogen Sulfide <i>K. Gutsol, T. Nunnally, A. Rabinovich, A. Starikovskiy, A. Fridman, A. Gutsol, A. Kemoun</i>
9:30-9:45 am	Pulsed X-Ray Induced Partial Discharge Measurements (PXIPD) <i>S. Adili, C. M. Franck, H. Fuhrmann</i>	Gradient Mechanism Of Detonation Initiation Under Action Of High-Voltage Nanosecond Discharge <i>A. Rakitin, A. Starikovskii</i>
9:45-10:00 am	Measuring Breakdown Probabilities Of SF ₆ Insulated, Low Inhomogeneous Electrodes <i>P. Simka, C. M. Franck</i>	
10:00-10:30 am	Tea and Coffee Break	

	<p>Will speakers at the following sessions please make themselves known to the chairmen in their lecture hall 5 minutes before the start of the session.</p>	
	<p>I2 - Kaisersaal Lightning Chairman: J. J. Lowke</p>	<p>G1 - Rubenowsaal Pulsed-Power Applications Chairman: D. Uhrlandt</p>
10:30-10:45 am	<p>Simulation Of The Explosion Of A Lightning Channel During High Current Pulse <i>B. Peyrou, L. Chemartin, P. Lalande, B. Chéron, C. Delalondre, F. Lago</i></p>	<p>Characterisation Of A Triggered Corona-Stabilised Switch In Dry Air <i>M. P. Wilson, I. V. Timoshkin, S. J. MacGregor, M. J. Given, J. M. Lehr</i></p>
10:45-11:00 am	<p>Simulation Of A Swept Stroke Discharge During Lightning Strike To Aircraft With A Three-Dimensional Electric Arc Model <i>L. Chemartin, P. Lalande</i></p>	<p>Impact Of The Power Supply On The Efficiency Of The Plasma Synthetic Jet <i>A. Belinger, J. P. Cambronne, P. Hardy, P. Bariceau, D. Caruana</i></p>
11:00-11:15 am	<p>Experimental Research Of A Ball Lighting In The Field Of It's Origin <i>A. G. Oreshko</i></p>	<p>Pulse Filamentary Discharge In Mixing Layer Of Reacting Gases <i>S. B. Leonov, Y. I. Isaenkov, D. A. Yarantsev, M. A. Shurupov, M. N. Shneider</i></p>
11:15-11:30 am	<p>Electrical Discharges In Planetary Atmospheres <i>A. Robledo-Martinez, H. M. Sobral, A Ruiz-Meza</i></p>	<p>Influence Of Pulse Shape On Degradation Effect Of Pesticide Residues In Apple Juice Treated With PEF <i>J. Chen, R. Zhang, J. Xiao, L. Wang, Z. Guan</i></p>
11:30-11:45 am	<p>A Novel Approach To Lightning Location: Potential For Reducing Electrical Supply Disruption <i>R. M. Harris, M. D. Judd, P. J. Moore</i></p>	<p>High Voltage Short Pulse Generation Method Based On Spark-Gap Switch And Pulse Forming Network <i>Z. Xibo, S. Jiancang</i></p>
11:45-12:00 am		<p>Experimental Study On High Pressure Hydrogen Gas Switch Breakdown <i>L. Sheng, F. Ya-Jun, S. Lei</i></p>
12:00-12:15 pm	Closing Ceremony	
12:15-1:25 pm	Lunch	<p>12:45-1:45 pm International Scientific Committee Meeting (with lunch) - INP, 4th floor</p>



International Conference
on Gas Discharges and
Their Applications

XVIII

5th-10th September 2010

GD 2010
Greifswald Germany

GD 2010 – Contact Information

INP Greifswald
GD 2010
Felix-Hausdorff-Str. 2
17489 Greifswald / Germany

gd2010@inp-greifswald.de
www.gd2010.org