

POSTERSESSION A

Monday, September 20, 1993, (14.30 - 18.00)

Topic 13: Electrode and surface effects.

<i>Adamowicz, T.; Sobecki, M.</i> The influence of a magnetic field on the cathode working conditions of noble gas ion lasers.	1
<i>Anders, A.; Anders, S.; Hantzsche, E.; Jüttner, B.; Ziegenhagen, G.</i> Optical investigation of arc cathode spots in vacuum.	3
<i>Felsner, P.; Christiansen, J.; Frank, K.; Hartmann, W.; Linsenmeyer, A.; Stetter, M.</i> Investigations of cathode phenomena in pseudospark discharges.	5
<i>Kaluzny, A.J.</i> Development of the surface arc discharges on the H.V. insulators.	7
<i>Kando, M.; Yokoi, S.; Ichikawa, M.; Furukawa, H.</i> Improved characteristics of thermionic converter by illuminating a xenon lamp radiation.	9
<i>Kolobov, V.I.; Belasri, A.; Boeuf, J.-P.; Pitchford, L.C.</i> Cathode sheath formation in a high pressure discharge: Application to XeCl excimer lasers.	11
<i>Kruscha, K.J.G.; Behnke, J.F.; Deutsch, H.; Winkler, R.</i> Investigation on plasma wall interaction in glow discharges.	13
<i>Mesyats, G.A.; Skvortsov, V.A.; Fortov, V.E.; Moroz, V.A.</i> Electro-hydrodynamics of cathode microtorch.	15
<i>Opydo, W.; Batura, R.; Mila, J.; Opydo, J.</i> Influence of cobalt-tungsten alloy coating on the surface of copper electrodes upon electric strength under AC voltage of unconditioned vacuum insulation systems.	17
<i>Riemann, K.-U.</i> Theory of the plasma-sheath transition in a magnetic field.	19
<i>Schein, J.; Bayer, R.; Mentel, J.</i> Optical investigation of arc spot ignition on cold electrodes in dependence on the electrode material and surface treatment.	21
<i>Vladimirov, S.V.; Yu, M.Y.; Stenflo, L.</i> On surface wave solitons in cold plasmas.	23

Topic 14: Radio frequency, high frequency and microwave discharges.

<i>Aints, M.; Haljaste, A.; Kudu, K.; Paris, P.</i> Influence of attachment-detachment processes on the drift of negative ions and electrons in the HF field.	25
<i>Alves, L.L.; Ferreira, C.M.</i> Time-dependent model of a plasma column sustained by an harmonic external field.	27

<i>Annaratone, B.M.; Ku, V.P.T.; Allen, J.E.</i> Determination of the ion energy distribution in RF plasma.	29
<i>Annaratone, B.M.; Ku, V.P.T.; Allen, J.E.</i> The current waveform of a capacitively coupled RF discharge.	31
<i>Atta, M.; Khedr, A.; Abdel Monem, H.M.; Elnadi, L.</i> Investigation in vacuum arc discharge of carbon graphite.	33
<i>Atta, M.; Khedr, A.; Elnadi, L.; Hintz, E.</i> Observation of vacuum spark with a hollow-cathode configuration.	35
<i>Batanov, G.M.; Ivanov, V.A.; Konyzhev, M.E.; Konujshkin, V.A.; Mirov, S.B.</i> Microwave discharge method for formation of optically-dense submicron-thickness layers with high concentrations of color centers on the surfaces of alkali-halide crystals.	37
<i>Benova, E.; Petrova, T.; Blagoev, A.; Zhelyazkov, I.</i> Theoretical study of UHF argon discharges at moderate gas pressures.	39
<i>Bluem, E.; Boisse-Laporte, C.; Leprince, Ph.; Marec, J.</i> Surface wave propagation in a large diameter plasma.	41
<i>Böhle, A.; Kortshagen, U.</i> Experimental and theoretical investigation of the influence of excited atoms on the modelling of a surface wave produced argon discharge.	43
<i>Deutsch, R.; Räuchle, E.; Schwarz, J.; Seeböck, R.J.</i> Determination of plasma parameters from nonlinear oscillations in RF-discharges.	45
<i>Ehlemann, U.; Wiesemann, K.</i> Measurements of ion energy distributions behind a RF sheath.	47
<i>El Shaer, M.; Schulz-v.d. Gathen, V.; Döbele, H.F.</i> Emission spectroscopy and microwave interferometry at a RF discharge in hydrogen.	49
<i>Feoktistov, V.A.; Klopovsky, K.S.; Popov, A.M.; Rakhimov, A.T.; Rakhimova, T.V.</i> Self-consistent model of low pressure RF discharge in oxygen.	51
<i>Frolov, K.S.; Kosarev, A.I.; Smirnov, A.S.; Tsendin, L.D.; Ustavshikov, A.Ya.; Vinogradov, A.Ya.</i> Frequency influence on silicon deposition in RF discharge.	53
<i>Geisler, M.; Jung, M.; Kötter-Faulhaber, R.; Leuterer, F.; München, M.; Patz, U.; Wilhelm, R.</i> Scalable microwave ECR plasma source for industrial PCVD applications.	55
<i>Godyak, V.A.; Piejak, R.B.</i> Spatially resolved EEDF measurements in a capacitive RF discharge.	57
<i>Hirsch, S.; Himmel, G.; Ströhlein, G.</i> Determination of electron density and RF-electric field amplitude in an overdense microwave produced helium discharge.	59
<i>Janca, J.; Talsky, A.; Krcma, F.; Ricard, A.; Hochard, L.</i> Spectroscopy of nitrogen recombination in microware afterglow at low temperatures.	61
<i>Kaganovich, I.D.; Tsendin, L.D.</i> Electrode sheath in RF discharge in electronegative gases.	63
<i>Kando, M.; Kajihara, M.</i> Onset of microwave gas discharges with stubs at moderate pressures.	65

<i>Kapoun, K.; Aints, M.; Haljaste, A.; Aubrecht, V.</i> Electrical parameters and temperature of the breakdown of air in superimposed AC and DC fields.	67
<i>Kessi, O.; Nencib, S.; Tadjine, R.; Hakim, I.</i> Behaviour and performance of a RF triode multipolar plasma reactor with hollow cathode.	69
<i>Kimura, T.; Ohe, K.</i> Detection of electron energy distribution function in plasma potential fluctuation-compensated Ar RF plasmas.	71
<i>Kortshagen, U.; Zethoff, M.</i> Experimental and theoretical investigation of the ion energy distribution function at the electrode of a capacitively coupled RF-discharge.	73
<i>Kortshagen, U.; Tsendin, L.D.</i> On the influence of the space charge electric field on the electron energy distribution function in surface wave produced plasmas.	75
<i>Kudu, K.; Beskhebnny, S.; Zhukov, A.</i> Threshold voltages of HF discharges in the atmospheric air.	77
<i>Lao, C.; Cotrino, J.; Gamero, A.; Sola, A.</i> Measurement of metastable- and resonant-state densities by self-absorption techniques in argon surface-wave-produced discharges.	79
<i>Longo, S.; Capriati, G.; Capitelli, M.</i> Two-stage calculations of space- and time-dependent electron kinetics in parallel-plate RF discharges, based on fluid model and single particle dynamics.	81
<i>Lukina, N.A.; Sergeichev, K.F.; Sychov, I.A.</i> Ozone formation under the silent microwave discharge in oxygen.	83
<i>Meyer, D.; Vinogradov, I.P.; Wiesemann, K.</i> Plasma containment and diamagnetism of weakly relativistic electrons in an ECR discharge.	85
<i>Minko, L.Ya.; Chivel, Yu.A.</i> Initial destruction of metals and instability of the melt surface under the action of pulsed laser.	87
<i>Nakai, N.; Kando, M.</i> Calculated electromagnetic field distributions in cylindrical resonant cavities with stubs by the finite element method.	89
<i>Nonaka, S.</i> Wave interaction between metal and plasma surface waves for long and large-area RF plasma productions.	91
<i>Ohsawa, A.; Ohuchi, M.; Tabata, Y.; Kubota, T.</i> The effect of the ion plasma frequency on electron energy distribution function.	93
<i>Sa, P.A.; Loureiro, J.; Ferreira, C.M.</i> Time-dependent analysis of low and high frequency plasmas in argon at low pressure.	95
<i>Sabadil, H.</i> Probe diagnostics in negative ions containing plasmas of RF oxygen planar discharge.	97
<i>Sandou, K.; Sugawara, M.</i> Measurements of expansion velocity of the electrode sheath in RF glow discharge plasmas.	99
<i>Sato, N.; Kawashima, Y.</i> Observation and analysis of pulsed RF discharges in nitrogen.	101

<i>Schulz, G.</i> Aspects of the plasmachemical synthesis of ultradispersed powders at the region between plasmaelectrical and thermal activation.	103
<i>Shibata, K.; Nishida, Y.</i> Sheet shaped plasma production for microwave plasma interaction experiments.	105
<i>Shishkin, A.G.; Smirnov, A.P.; Shishkin, G.G.</i> Numerical simulation of capacitively coupled RF discharges in a low frequency regime.	107
<i>Shivarova, A.; Tatarova, E.</i> Instabilities in surface wave sustained discharges.	109
<i>Shivarova, A.; Tatarova, E.; Zamfirov, D.</i> Radial dependence of the electron energy distribution function in surface wave sustained discharges.	111
<i>Skorik, M.A.; Allen, J.E.</i> Modelling of low pressure RF glow discharges.	113
<i>Stephan, U.; Kuske, J.; Schade, K.; Fuhs, W.</i> Electrical measurement of VHF discharges.	115
<i>Stephan, U.; Kuske, J.; Schade, K.</i> Power supply of HF and VHF discharges.	117
<i>Strobel, H.; Ohl, A.</i> Modelling of neutral particle balances in a planar microwave plasma reactor by a system of coupled CSTR.	119
<i>Vazquez, F.J.G.; Lao, C.; Cotrino, J.</i> Initial stage in the population of excited states in argon surface wave discharges.	121
<i>Vikharev, A.L.; Gorbachev, A.M.; Ivanov, O.A.; Kolisko, A.L.; Litvak, A.G.</i> Creation of the artificial ionized layer by microwave beams for the ozone generation in the upper atmosphere.	123
<i>Vikharev, A.L.; Gorbachev, A.M.; Kim, A.V.; Kolisko, A.L.</i> Plasma filament formation of high-pressure microwave discharge in wave beam.	125
<i>Vikharev, A.L.; Gorbachev, A.M.; Ivanov, O.A.; Kolisko, A.L.</i> Plasma parameters and induced UV radiation of filaments in a high-pressure microwave discharge.	127
<i>Vinogradov, I.P.; Meyer, D.; Jettkant, B.; Wiesemann, K.</i> Spectroscopic measurements of gasmixing effects in an ECR discharge.	129
<i>Vitruk, P.P.; Baker, H.J.; Hall, D.R.</i> Ion density spatial profile in near-cathode sheaths of radiofrequency gas discharges.	131
<i>Vitruk, P.P.; Baker, H.J.; Hall, D.R.</i> Similarity laws in alpha RF discharge excited carbon dioxide lasers.	133
<i>Zhelyazkov, I.</i> Axial structure of an overdense plasma sustained by circularly polarized microwaves in coaxial discharge devices in the presence of an external constant magnetic field.	135

Topic 17: Generation and dynamics of plasma flows.

- Astashinsky, V.M.; Kostyukevich, E.A.; Mankovsky, A.A.; Minko, L.Ya.*
The investigation of processes determining the dynamics of plasma flows
in the quasi-stationary high-current plasma discharge. 137
- Burdakov, A.V.; Koidan, V.S.; Lebedev, S.V.; Mekler, K.I.; Postupaev, V.V.; Voropaev, S.G.*
Characterization of long magnetized linear discharge in a metallic chamber. 139
- Chuvashov, S.N.; Protasov, Yu.S.*
A physical concept of high-current radiative plasmodynamic discharges. 141
- Kubarev, Y.V.; Rosinsky, S.E.; Kholin, N.N.*
Investigation of plasma jet potential control procedures of
magnetoplasmdynamic accelerator. 143
- Kubarev, Y.V.; Tashaev, Y.N.; Kholin, N.N.*
On the characteristics optimization of magnetoplasmdynamic accelerator
by external magnetic field. 145
- Popel, S.I.; Tsytoich, V.N.*
New theory of steady-state lower-hybrid current drive. 147

POSTERSESSION B

Tuesday, September 21, 1993, (9.00 - 13.00)

Topic 4: Particle and laser beam interaction with plasmas.

<i>Abramyan, L.A.; Kim, A.V.; Mironov, V.A.</i> Guiding of an electromagnetic ionizing pulse in dense gases.	149
<i>Bickel, P.; Arenz, H.; Christiansen, J.; Eberl, E.; Kauf, M.</i> Spatially and temporally resolved study of laser induced absorption waves produced by a 5 μ s / 800 mJ TE-CO ₂ laser.	151
<i>Burmasov, V.S.; Kandaurov, I.V.; Kruglyakov, E.P.; Meshkov, O.I.</i> Foilless injection of REB from plasma-filled diode into a dense plasma.	153
<i>Fleurier, C.; Hong, D.; Andre, V.; Gardes, D.; Chabot, M.; Deutsch, C.; Maynard, G.</i> Multicharged energetic heavy ion interaction with dense and fully ionized deuterium.	155
<i>Gündel, H.; Ross, W.</i> Continuously operating electron beam controlled discharge with transverse gas flow.	157
<i>Inovenkov, I.N.; Kim, A.V.; Naumova, N.M.; Sergeev, A.M.</i> Interaction of a short high-intensive laser pulse with plasma created by it through tunneling ionization.	159
<i>Mendonca, J.-T.; Oliveira e Silva, L.</i> Photon acceleration in laser-plasma interaction.	161
<i>Popel, S.I.</i> Development of the beam instability in the presence of the ion-sound turbulence.	163
<i>Popel, S.I.; Vladimirov, S.V.; Yu, M.Y.</i> Plasma-maser effect and beam instability development.	165
<i>Rogashkova, A.I.</i> About waves determining the ignition of beam-plasma discharge without magnetic field.	167
<i>Oliveira e Silva, L.; Mendonca, J.-T.</i> Extinction theorem for electromagnetic waves interacting with an ionization front.	169
<i>Voss, A.; Alunovic, M.; Funken, J.; Kreutz, E.W.</i> Emission spectroscopy of laser-induced plasmas in PLD of ceramics.	171

Topic 5: Ionospheric, magnetospheric and astrophysical plasmas.

<i>Arendt, U.; Schindler, K.; Ziegler, H.J.; Zwingmann, W.</i> Particle simulation of the ion-tearing-mode including electric coupling between electrons and ions.	173
---	-----

<i>Kleiman, E.B.; Kulinich, V.V.; Tsyтовich, V.N.</i> On nonstationary change of form resonance lines radiation originating from region with well-developed plasma turbulence.	175
<i>Klumov, B.A.; Rukhadze, A.A.; Rybak, P.V.; Tarakanov, V.P.</i> Modelling of electron beam injection into space plasma.	177
<i>Klumov, B.A.; Rukhadze, A.A.; Rybak, P.V.; Tarakanov, V.P.</i> Numerical simulation of REB injection from a moving source into an unbounded plasma.	179
<i>Klumov, B.A.; Rukhadze, A.A.; Rybak, P.V.; Tarakanov, V.P.</i> Simulation of beam-plasma interaction in near rocket region during active experiments in space.	181
<i>Krallmann, T.; Schindler, K.</i> On the stability of the ion-tearing-mode.	183
<i>Meister, C.-V.</i> Review on plasma waves observed in the near-earth space.	185
<i>Teselkin, S.; Büchner, J.; Nikutowski, B.</i> Particle energization by stationary reconnection.	187
<i>Wiechen, H.; Ziegler, H.J.</i> Relaxation of collisionless plasmas.	189

Topic 9: Ionization growth and transition to breakdown.

<i>Asinovsky, E.I.; Lagarkov, A.N.; Markovets, V.V.; Rutkevich, I.M.</i> On the similarity of the electric breakdown waves propagating in the shielded discharge tubes.	191
<i>Choi, P.; Aliaga, R.; Favre, M.; Moreno, J.; Chuaqui, H.; Wyndham, E.</i> Studies of charge development at low pressure with and without the presence of a hollow cathode region.	193
<i>Fang, M.T.C.; Yan, J.D.; Liu, Q.S.</i> Plasma chemistry and the breakdown of a residue SF ₆ plasma.	195
<i>Favre, M.; Moreno, J.; Chuaqui, H.; Wyndham, E.; Choi, P.; Aliaga, R.</i> Correlations of plasma formation processes in the transient hollow cathode discharges.	197
<i>Gündel, H.; Ross, W.; Volkmann, H.</i> Non-LTE pulse discharges in molecular gases at atmospheric pressure.	199
<i>Hillmann, H.; Müller, F.; Wenz, H.</i> Investigations on the ignition of high voltage glow discharges.	201
<i>Kennedy, J.T.; Wetzer, J.M.</i> Cathode photoelectron emission by far UV photons from a N ₂ discharge.	203
<i>Khodataev, K.</i> The avalanche ionization of electronegative gas in super critical electric field without preionization.	205
<i>Puech, V.; Legentil, M.; Thomaz, J.C.; Pitchford, L.C.; Oudoudi, N.; Boeuf, J.-P.; Liou, R.L.; Gundersen, M.</i> Parametric studies of time to breakdown in pseudospark switches.	207

<i>Schwirzke, F.</i> The physics of high voltage breakdown.	209
<i>Sometani, T.; Ohno, Y.; Mizuno, Y.</i> Luminescence growth and poloidal magnetic field in tokamak ionization phase.	211

Topic 19: Plasma spectroscopy (including laser-induced fluorescence, optogalvanic and optovoltaic effects).

<i>Andre, V.; Fleurier, C.; Hong, D.</i> Z-pinch plasma for heavy ion beam - dense plasma interaction.	213
<i>Bajovic, V.S.</i> A discussion of gas and solid phase temperature measurements in coal combustion products plasma.	215
<i>Burakov, V.S.; Naumenkov, P.A.; Raikov, S.N.</i> Laser absorption spectroscopy of low pressure pulsed discharge in noble gases.	217
<i>Chatain, F.; Lagarde, T.; Arnal, Y.; Derouard, J.; Persing, H.; Sadeghi, N.</i> Measurement of space resolved ion velocity distribution in a low pressure DECR plasma reactor.	219
<i>Coitout, H.; Magne, L.; Veis, P.; Cernogora, G.</i> Atomic nitrogen measurement in a time afterglow.	221
<i>De Benedictis, S.; Dilecce, G.; Ambrico, P.F.</i> He(4 ³ P) sublevel quenching by electrons: a case study for time resolved He(2 ⁻³ S) LIF measurements in a pulsed RF discharge.	223
<i>De Benedictis, S.; Dilecce, G.</i> Observation of NO vibrational excitation in a RF glow discharge.	225
<i>Djenize, S.; Labat, J.M.; Puric, J.</i> Stark broadening regularities along a VB subgroup in the periodic system.	227
<i>Forster, G.K.; Koch, A.W.</i> Spectrally resolved Thomson scattering at steady-state high-velocity plasma jets.	229
<i>Gheorghie, V.; Giurgiu, L.; Stoican, O.; Mihalcea, B.; Pavelescu, G.; Gheorghiu, O.</i> An arc discharge for optical pumping of barium stored ions.	231
<i>Glenzer, S.; Gavrilenko, V.; Ispolatov, Ya.; Kunze, H.-J.; Oks, E.</i> Stark broadening of 3d-4f transitions of CIV and NV in a gas-liner pinch.	233
<i>Goly, A.; Kusz, J.; Weniger, S.</i> Transition probabilities of SmII-lines emitted from a ferroelectric plasma source.	235
<i>Günter, S.; Könies, A.</i> The influence of plasma correlation effects on spectral line shapes.	237
<i>Hochard, L.; Ricard, A.; Popa, S.-D.</i> Influence of the flow velocity on the second positive spectra of a flowing nitrogen glow discharge.	239
<i>Hochard, L.; Ricard, A.; Popa, S.-D.</i> Radiative states into N ₂ -(≤1%) H ₂ flowing DC discharges.	241

<i>Ispolatov, Ya.; Oks, E.</i> A generalized theory of stark broadening of hydrogen lines in dense plasmas.	243
<i>Itoh, H.; Takeyama, Y.; Ikeda, M.; Satoh, K.; Nakao, Y.; Tagashira, H.</i> Optical diagnostics of RF plasmas in H ₂ /CH ₄ .	245
<i>Kindel, E.; Lange, H.; Müller, S.; Zahn, R.-J.</i> Measurement of excited Xe-atoms in dielectric barrier discharges.	247
<i>Könies, A.; Günter, S.</i> Asymmetry of the first hydrogen Lyman lines.	249
<i>Mimura, M.; Sato, K.</i> Application of deconvolution to Doppler measurement of plasma ion temperature.	251
<i>Mitsching, J.; Meiners, D.</i> Continuum emission of argon plasmas at high electron densities.	253
<i>Musa, G.; Bobulescu, R.C.; Bratescu, M.A.; Gheorghiu, O.C.</i> Optical impedance spectroscopy in high pressure small gap RF discharge.	255
<i>Musa, G.; Bratescu, M.A.; Bobulescu, R.C.; Popescu, A.; Baltog, A.; Lungu, C.P.</i> Penning effect in Ne+Ar and Ne+H ₂ mixtures detected by optogalvanic spectroscopy.	257
<i>Nakano, T.; Giapis, K.P.; Gottscho, R.A.; Lee, T.C.; Sadeghi, N.</i> Ar metastable ion transport in Helicon plasmas.	259
<i>Puric, J.; Djenize, S.; Sreckovic, A.; Bukvic, S.; Pivalica, S.; Labat, J.M.</i> Stark widths measurements of several FeII spectral lines from a ⁶ D-z ⁶ D ⁰ multiplet (uv 1).	261
<i>Röpcke, J.; Ohl, A.</i> Comparison of spectroscopical temperature measuring methods in microwave plasmas relevant for plasmachemical deposition.	263
<i>Sabsabi, M.; Gravelle, D.V.; Vacquie, S.</i> Experimental determination of some transition probabilities of ArII spectral lines.	265
<i>Schielke, W.; Schleinitz, W.; Ohl, A.; Röpcke, J.</i> Diagnostics of three-dimensional structure of DC and RF discharges with irregular and structured electrode geometries by optical emission spectroscopy with tomographic reconstruction.	267
<i>Sokoll, M.; Mitsching, J.; Meiners, D.; Lesage, A.</i> Shock tube measurements of stark width and shift of silicon II $\lambda=386,26$ nm.	269

POSTERSESSION C

Tuesday, September 21, 1993, (14.30 - 18.00)

Topic 2:

Waves and instabilities, including shock waves.

<i>Abrakov, V.V.; Petrov, A.Ye.; Sarksyian, K.A.; Skvortsova, N.</i> Investigation of the long-living spectral components in the ion-sound plasma turbulence.	271
<i>Babaeva, N.Yu.; Mnatsakanyan, A.Kh.; Naidis, G.V.</i> Modelling of weak shock wave propagation in gas discharge plasma.	273
<i>Budko, A.B.; Bychkov, V.V.; Golberg, S.M.; Liberman, M.A.</i> Thermonuclear deflagration wave with energy transport by alpha particles. Hydrodynamic stability of a combustion front.	275
<i>Chuvashhev, S.N.; Protasov, Yu.S.</i> A new magnetohydrodynamic instability and its influence on powerful gas discharges magnetostructure.	277
<i>Fraiman, G.M.; Kostyukov, I.Yu.</i> The instability of regimes of full electromagnetic wave penetration through a smoothly inhomogeneous nonlinear plasma slab.	279
<i>Gajic, D.Z.; Milic, B.S.</i> On the excitation of QPEMIC instabilities in weakly ionized plasmas placed in non-parallel fields.	281
<i>Hansen, K.; Piel, A.</i> Power dependent modification on plasma-parameters by convergent resonance cones.	283
<i>Ignatov, A.M.; Gusein-zade, N.G.</i> Diocotron instability in the external electromagnetic field.	285
<i>Ignatov, A.M.</i> Fractal plasma waves.	287
<i>Infeld, E.; Sadowski, M.</i> Surface solitons in plasma devices.	289
<i>Ishikawa, I.; Suganomata, S.; Matsumoto, M.</i> Low-frequency waves of negative ion mode in positive column of SF ₆ and N ₂ mixture.	291
<i>Khodataev, K.; Klimov, A.; Gridin, A.</i> The shock wave dispersion in pulsed glow discharge.	293
<i>Kissovski, Zh.; Shivarova, A.</i> Low-frequency instabilities in gas-discharge magnetized plasmas.	295
<i>Kulikovskiy, A.A.; Mnatsakanyan, A.Kh.; Naidis, G.V.; Solozobov, Yu.M.</i> Models for positive corona streamer propagation in air and combustion products.	297
<i>Matsumoto, M.</i> Excitation of low frequency waves in a magnetized negative gas positive column.	299

<i>Matsuura, K.; Shimizu, N.; Matsumoto, K.; Shibata, K.</i> Unstable behaviour and magnetic fluctuation in a toroidal z-pinch plasma.	301
<i>Mescheryakov, A.I.; Skvortsova, N.</i> Fast magnetosonic wave propagation in hydrogen plasma at $\omega = \omega_{bi}$ in L-2 stellarator.	303
<i>Mond, M.; Rutkevich, I.M.</i> MHD instabilities of nonuniform flows of a highly conducting plasma.	305
<i>Ruscanu, D.; Popa, G.; Stamate, E.</i> On the properties of the bipolar potential structure with variable geometry.	307
<i>Sarker, N.R.; Turikov, V.A.</i> Stability of beam-type double layers.	309
<i>Tanikawa, T.; Barrett, P.J.; Sato, S.; Nakamura, Y.</i> E x B generated plasma instability.	311
<i>Tanikawa, T.; Wong, A.Y.</i> Overshoot of plasma waves at the resonance layer in an inhomogeneous plasma.	313
<i>Wohlin, M.; Carpenter, R.T.; Torven, S.</i> Strong turbulence at a double layer.	315
<i>Zhang, J.</i> The effects of turbulence and NLTE phenomena on arc properties.	317
<i>Zhang, J.</i> Theoretical investigation of N ₂ arc properties in a supersonic nozzle.	319
<i>Zigman, V.</i> Competition of collisional and Landau damping in the electron Langmuir mode in weakly ionized non-maxwellian plasmas.	321

Topic 11: Coronas, sparks, surface discharges and high pressure glows.

<i>Akishev, Yu.S.; Deryugin, A.A.; Elkin, N.N.; Karalnik, V.B.; Kochetov, I.V.; Napartovich, A.P.; Trushkin, N.I.</i> Spatial structure of DC glow discharge in atmospheric air.	323
<i>Akishev, Yu.S.; Deryugin, A.A.; Karalnik, V.B.; Kochetov, I.V.; Napartovich, A.P.; Trushkin, N.I.</i> Study on DC glow discharge in humid air.	325
<i>Davies, A.J.; Hameed, R.R.; Ortega, P.; Waters, R.T.; Williams, W.T.</i> The effect of humidity on positive-impulse breakdown of rod/plane air gaps.	327
<i>Heesch, E.J.M. van; Blom, P.P.M.; Laan, P.C.T. van der</i> An E-field and ion sensor for high intensity pulsed coronas.	329
<i>Ikhlef, A.; Skowronek, M.</i> Study of the X-Ray emission in a 1 joule - 50 nanoseconds vacuum discharge.	331
<i>Korasli, C.</i> Determination of negative ion drift-velocities in corona discharge in SF ₆ .	333

<i>Lins, G.; Hartmann, W.</i> Metal vapour densities and cathode temperatures in a pseudospark switch with a cathode containing tantalum carbide.	335
<i>Liu, W.D.; Charaoui, J.; Wood, J.K.; Spencer, J.W.; Jones, G.R.; Coventry, P.</i> Electric field distortion caused by surface charge on PTFE nozzles.	337
<i>Lück, H.; Loffhagen, D.; Bötticher, W.</i> Comparison of calculated and measured voltage of an excimer high pressure glow discharge.	339
<i>Müller, S.; Zahn, R.-J.; Lange, H.; Kindel, E.</i> VUV radiation of dielectric barrier discharges.	341
<i>Scholz, M.</i> Computer modelling of planar surface discharge initiation.	343
<i>Schröder, G.; Bötticher, W.</i> Shock waves in the cathode layer of XeCl-discharges.	345
<i>Schulz, A.; Hebach, M.; Walden, F.; Rosmej, F.B.; Kunze, H.-J.</i> Z-scaling of $K\alpha$ -radiation from micropinches in low-inductance vacuum sparks.	347
<i>Schwabedissen, A.; Loffhagen, D.; Bötticher, W.</i> Measurements and model calculations of Xe [*] -, Cl [*] -, H [*] -, and Ne [*] -particle number densities in a XeCl [*] -discharge.	349
<i>Sikola, T.; Vrzal, M.; Nebojsa, A.; Dittrichova, L.</i> Numerical solution of ion grid extraction in the Kaufman ion source.	351
<i>Sikola, T.; Dittrichova, L.; Dlabaja, R.; Nebojsa, A.</i> Plasma characteristics of the Kaufman ion source measured by the Langmuir probe.	353
<i>Simon, G.; Bötticher, W.</i> Model calculations on the discharge formation during the ignition of XeCl-discharges using the 2D-Code by Boeuf.	355
<i>Takahashi, T.; Kaneda, T.; Suginuma, Y.</i> Surface streamers on an insulated fine wire.	357
<i>Zoler, D.; Cuperman, S.; Ashkenazy, J.</i> Numerical study of plasma parameters in an ablative capillary-pipe system.	359

Topic 18: Numerical modelling.

<i>Aden, M.; Alunovic, M.; Kreutz, E.W.; Voss, A.</i> Laser-induced vapour / plasma formation in PLD of Ceramics.	361
<i>Armenise, I.; Capitelli, M.; Colonna, G.; Gorse, C.</i> Non-equilibrium vibrational distributions of N ₂ under reentry conditions.	363
<i>Askaryan, G.A.; Batanov, G.M.; Gritsinin, S.I.; Korchagina, E.G.; Kossyi, I.A.; Matveyev, A.A.; Silakov, V.P.; Tarasova, N.M.</i> Experimental and mathematical modelling of plasmachemical methods of troposphere cleaning from chlorofluorocarbons (CFC's).	365

<i>Aubrecht, V.; Lowke, J.J.</i> Radiative heat transfer in SF ₆ arc plasma.	367
<i>Bashlov, N.; Dubnov, D.; Kaply, O.; Timofeev, N.; Zissis, G.; Charrada, K.</i> Theoretical model of the plasma of short-distance super-high pressure arc discharge.	369
<i>Charrada, K.; Zissis, G.; Damelin-court, J.J.; Stambouli, M.</i> On the convective flow calculation during the start-up phase of a mercury high pressure discharge plasma.	371
<i>Colonna, G.; Esposito, F.; Capitelli, M.</i> Sensitivity analysis of models in plasma kinetics.	373
<i>Donko, Z.; Rozsa, K.; Tobin, R.C.; Peard, K.A.</i> Modeling the obstructed glow discharge in helium.	375
<i>Goubert, L.; Billing, G.D.; Desoppere, E.; Wieme, W.</i> Theoretical study of the vibrational relaxation of excimers in an Ar afterglow.	377
<i>Gousset, G.; Bretagne, J.; Leprince, Ph.; Rousseau, A.</i> Ion and atom kinetics in hydrogen low-pressure microwave discharges.	379
<i>Hakr, J.; Kravarik, J.; Kubes, P.; Kulhanek, P.; Novotny, V.; Pichal, J.</i> MHD model of the gas embedded interrupted z-pinch.	381
<i>Hashiguchi, S.; Ito, K.; Tachibana, K.</i> Numerical investigation of He-Xe glow discharges for full-color plasma display panels.	383
<i>Itoh, H.; Matsumura, Y.; Satoh, K.; Nakao, Y.; Tagashira, H.</i> Development of electron swarms in CF ₄ .	385
<i>Meyer, P.; Wunner, G.; Schmitt, W.; Ruder, H.</i> Comparison of a continuum model and a particle simulation for a DC glow discharge in argon.	387
<i>Pinhao, N.R.</i> Time evolution of resonance radiation in an infinite cylinder.	389
<i>Poinsignon, A.; Hamani, A.; Yousfi, M.</i> Finite element method for ionizing wave propagation in high pressure N ₂ discharges.	391
<i>Scarpa, P.; Legros, W.; Spronck, L.</i> Modelling of thermodynamic properties of high temperature gases.	393
<i>Schweigert, V.A.; Zhilyaev, M.I.; Schweigert, I.V.</i> Numerical investigation of silane plasma in RF-discharges.	395
<i>Schweigert, V.A.; Zhilyaev, M.I.</i> Particle charge in low temperature plasma.	397
<i>Sinman, S.; Sinman, A.</i> A novel method for generation of focused plasma channel as DPF.	399
<i>Sladkov, O.S.; Temeev, A.A.; Vereschako, A.D.</i> Stability of low-voltage discharge of low pressure.	401
<i>Stefanovic, P.; Pavlovic, P.; Kostic, Z.</i> Computer simulation of particle evaporation in thermal plasma flow reactor.	403