

GENERAL INVITED PAPERS

<i>Aquilanti, V.</i> Dynamics of reactions involving gaseous ions.	1
<i>Benford, J.</i> High power microwave generators.	6
<i>Gauthier, J.C.; Audebert, P.; Geindre, J.P.; Rousse, A.; Fallies, F.; Mysyrowicz, A.; Chambaret, J.P.; Grillon, G.; Antonetti, A.</i> Ultra intense laser pulses and plasma physics applications.	15
<i>Jones, G.R.</i> Plasma monitoring using chromatically processed optical signals.	24
<i>Puric, J.</i> Stark broadening of spectral lines and the problem of regularities - present status.	34
<i>Rukhadze, A.A.; Alexandrov, A.F.; Guseva, M.B.</i> Plasma technologies in medicine.	44
<i>Spatschek, K.H.</i> Nonlinear dynamics in low-temperature plasmas: The role of coherent structures in unstable situations.	50
<i>Weynants, R.R.; van Oost, G.</i> Recent developments in Tokamak research.	60
<i>Rutgers, W.R.</i> Plasma methods in air pollution control.	70

TOPICAL INVITED PAPERS

<i>Altman, C.</i> Wave symmetries in magnetized plasmas.	81
<i>Amemiya, H.</i> Diagnostics on plasmas containing negative ions using probe and optogalvanics.	88
<i>Bardos, L.</i> The supersonic rf plasma jet chemical system.	98
<i>Boeuf, J.-P.; Belenguer, Ph.; Hbid, T.</i> Modeling of dusty RF plasmas and comparisons.	108
<i>Boswell, R.W.</i> The history and application of the helicon source to plasma processing.	118

<i>Böttcher, W.</i> Filamentation of high pressure glow discharges.	128
<i>Fiedorowicz, H.; Bartnik, A.; Parys, P.; Patron, Z.; Pisarczyk, T.</i> High intensity laser interaction with gas puff targets.	132
<i>Gorse, C.</i> Non equilibrium plasma modeling.	141
<i>Gousset, G.</i> Modelling of HF flowing discharge in oxygen.	149
<i>Iakubov, I.T.</i> Kinetic processes in super dense plasma.	158
<i>Jones, J.E.</i> Experimental, numerical and theoretical developments in DC point-plane corona discharges.	168
<i>Krompholz, H.; Hatfield, L.L.</i> Insulator flashover under the influence of an externally applied static magnetic field.	179
<i>Lunk, A.</i> The physics of discharges in plasma enhanced deposition.	187
<i>van der Mullen, J.A.M.; Benoy, D.A.; Fey, F.H.A.G.</i> Excitation equilibria in plasmas; a classification.	197
<i>Napartovich, A.P.; Akishev, Yu.S.</i> Glow discharge in a gas flow: physics and applications.	207
<i>Øien, A.H.</i> Effects of strong magnetic and electric fields on collision terms and transports in neutral and non-neutral plasmas.	217
<i>Peradzynski, Z.</i> Continuous optical discharge, properties and modeling.	227
<i>Pouvesle, J.M.; Robert, E.; Khacef, A.; Cachoncinlle, C.; Viladrosa, R.; Davanloo, F.; Collins, C.B.</i> Energetic high repetition rate flash X-ray source: application to UV-VUV fluorescence studies in high pressure gases.	237
<i>Raizer, Yu.P.</i> Modern considerations on two forms of radio-frequency capacitative discharge at intermediate pressure and comparison with low pressure RF-discharge.	245
<i>Reale, A.</i> Soft X-rays: sources and applications.	255
<i>Sakai, Y.</i> Effect of metastable atoms on electron swarm properties: Boltzmann equation analysis.	270
<i>Sanduloviciu, M.</i> Quantum processes at the origin of self-organization and chaos in current carrying gaseous conductors.	279
<i>Schoenbach, K.H.</i> The effect of magnetic fields on hollow cathode discharges.	287

<i>Schultz, C.G.</i> Solar wind particle fluxes at the SOHO satellite.	297
<i>Schürerer, F.</i> Solution methods for the nonlinear Boltzmann equation.	300
<i>Schweer, B.; Brosda, B.</i> Plasma edge diagnostic by optical spectroscopy of He-beams.	310
<i>Singh, D.P.; Vaselli, M.</i> Shock waves in laser produced plasmas.	318
<i>Sitenko, A.G.; Zagorodny, A.G.</i> Scattering of electromagnetic waves in plasmas and plasma-molecular systems.	326
<i>Skvortsova, N.N.; Batanov, G.M.; Petrov, A.Ye.; Sarksyian, K.A.</i> Lower-hybrid wave excitation by the oblique Langmuir waves beating, its characteristics and interaction with particles.	336
<i>Torven, S.</i> Formation of electric double layers in collisionless plasmas.	346
<i>Vasilieva, I.A.</i> Spectral diagnostics of the plasma containing macroscopic particles.	356
<i>Zigman, V.J.</i> Some collision-induced peculiarities in the excitation of ion-acoustic waves in weakly ionized plasmas.	366

ADDITIONAL PAPERS

<i>Abdelli, S.; Khalfaoui, A.; Kerdja, T.; Ghobrini, D.</i> Coupling properties through 2ω emission of laser plasma interaction.	377
<i>Alexandrov, A.F.; Ershov, A.P.; Ovodov, I.G.; Orlikovsky, A.A.</i> Monte Carlo simulation of electron probe current under plasma etching conditions.	379
<i>Alexandrov, A.F.; Kuzonikov, A.A.; Shibkov, V.M.</i> The free localized microwave discharge in air in the focused beam of the electromagnetic energy.	381
<i>Amakawa, T.; Adachi, K.; Yasui, S.; Inaba, T.</i> Thermal plasma technology for treatment of low level radioactive waste.	383
<i>Baranov, I.Ya.; Boreisho, A.S.</i> Multi-purpose high-power mobile CO-laser with RF discharge.	385
<i>Bartnik, A.; Denus, S.</i> X-ray emission from gas puff z-pinch.	387
<i>Bennauteur, D.; Khalfaoui, A.</i> A Wiedmann-Franz law for degenerate plasmas.	389
<i>Bobashev, S.V.; Mosesyan, D.A.; Simanovskii, D.M.; Shmaenok, L.A.</i> Diagnostic of expanding laser-produced plasma by Thomson scattering.	391

<i>Börnig, K.; Hoppe, W.; Pelka, J.</i> Energy- and angle distribution of argon ions and neutrals at the RF-powered electrode of a parallel-plate reactor.	393
<i>Bouziane, A.; Taplamacioglu, M.C.; Rowlands, A.R.</i> DC corona current density and electric field profiles in sulphur hexafluoride (SF ₆).	395
<i>Bouziane, A.; Remy, M.; Simon, C.; Renard, P.</i> Ion wave propagation in electronegative plasma as a diagnostic of negative ions.	397
<i>Cernak, M.; Marode, E.; Odrobina, I.</i> Comparison of current waveforms induced by prebreakdown corona streamers in N ₂ and air.	399
<i>Danilov, A.; Ilchenko, S.A.; Kunavin, A.T.; Markov, A.V.; Yakovlev, V.Y.</i> Convective instability and beam-plasma discharge during REB injection into gas.	401
<i>Danilov, A.</i> Nonlinear magnetosonic waves in the upstream regions of planets and comets.	403
<i>Desideri, D.; Antoni, V.; Bagatin, M.; Fauri, M.; Fiorentin, P.; Serianni, G.; Tramontin, L.</i> Characterization of a glow discharge for cleaning and conditioning of the RFX first wall.	405
<i>Deson, J.; Lalo, C.; Rousseau, A.</i> Detection of H atoms in the post-discharge of a H ₂ microwave plasma by multiphoton laser induced fluorescence.	407
<i>Elakshar, F.F.; Nossair, A.M.; Saady, A.H.; Garamoon, A.</i> Determination of the population density of excited atoms in mercury vapour discharge.	409
<i>Femia, N.; Tucci, V.; Vitelli, M.</i> Generalized models for the simulation of step-wise propagating gas discharges.	411
<i>Gavrilenko, V.; Derevianko, A.P.</i> Principle for spectroscopic determination of statistical characteristics of fluctuating electric fields in plasmas.	413
<i>Goedheer, W.J.; Meijer, P.M.; Passchier, J.P.D.</i> Bohm's criterion in a discharge containing cold negative ions.	415
<i>Golikov, I.A.; Solovyev, S.</i> On the formation of the high-latitude F-region ionization trough during winter period.	417
<i>Halliwell, S.N.; Little, C.</i> Output power and efficiency enhancement by the addition of hydrogen to a high-power infrared barium-vapour laser.	419
<i>Heinrich, F.</i> Fluorine emission line shapes in CF ₄ /O ₂ and SF ₆ RF discharges.	421
<i>Hosokawa, T.; Kaneda, T.</i> Breakdown characteristics in the gap with a hydrogen plasma.	423
<i>Hosokawa, T.; Cernak, M.</i> Effects of field emission processes on trichel pulse waveforms.	425
<i>Ivanov, A.A.; Rogozin, A.</i> Measurements of plasma density profile in the gas-dynamic trap using a neutral beam probe.	427
<i>Janca, J.; Trunec, D.</i> FTP archive for physics.	429

<i>Jovanovic, M.S.; Skoric, M.M.</i> Chaotic stimulated raman backscattering.	430
<i>Kukhlevsky, S.; Nemet, B.; Kozma, L.</i> Effects of arc-discharge formation on pulse-repetition-rate capabilities of transverse excited N ₂ lasers.	432
<i>Kveder, M.; Mozetic, M.; Murko-Jezovsek, M.; Drobnic, M.; Brecelj, F.; Pregelj, A.</i> Short lived vacuum arcs.	434
<i>Lakicevic, I.</i> A new method for electron density determination in the plasma focus.	436
<i>Lasgorceix, P.; Lago, V.; Asselin, P.; Dudeck, M.</i> Diagnostics methods in an air plasma jet at low pressure.	438
<i>Legentil, M.; Pasquiers, S.; Puech, V.; Riva, R.</i> Theoretical and experimental investigation of an X-Ray phototriggered XeCl laser.	440
<i>Lelievre, J.; Brisset, J.-L.</i> Thermal effects of the neutrals in a negative point-to-plane corona discharge in atmospheric air.	442
<i>Mank, G.; Finken, K.H.; Beuscher, H.; Brosda, B.</i> Investigation of an ECR-discharge for helium detection.	444
<i>Minko, S.L.</i> Structure and dynamics of unsteady radiative heat waves in air.	446
<i>Mond, M.; Rutkevich, I.</i> Spontaneous emission of sound from strong ionizing shocks.	448
<i>Mozetic, M.; Kveder, M.; Paulin, A.; Drobnic, M.</i> A double probe for determination of atomic hydrogen density.	450
<i>Nahorny, J.; Pagnon, D.; Touzeau, M.; Souza, A.R. de</i> Study of the NO creation processes in a N ₂ -O ₂ low pressure discharge.	452
<i>Nossair, A.M.; Elakshar, F.F.</i> Distribution of the electrostatic potential and the electric field inside the ion sensitive probe.	454
<i>Nossair, A.M.; Elakshar, F.F.</i> Study of plasma injection from a small aperture into an axial magnetic field.	456
<i>Odrobina, I.; Cernak, M.</i> Numerical simulation of the primary streamer-cathode contact.	458
<i>Okazaki, S.; Kogoma, M.; Uchiyama, H.; Uehara, M.; Kimura, Y.</i> Development of a homogeneous glow discharge at atmospheric pressure and application to surface treatments.	460
<i>Passchier, J.P.D.; Goedheer, W.J.</i> A two-dimensional model for an argon RF discharge.	462
<i>Pierre, T.; Bonhomme, G.; Leclert, G.</i> Experimental and numerical study of ion waves near the ion cyclotron frequency in a drifting plasma.	464

<i>Radtke, R.; Lieder, G.; Napiontek, B.; Field, A.R.; Fussmann, G.; Kallenbach, A.; Kiemer, K.; Mayer, H.M.;</i> The multichord divertor spectrometer system of the asdex upgrade tokamak.	466
<i>Rogozin, A.; Shikhovtsev, I.V.</i> An analyzer for measurements of the charge-exchange particles distribution function.	468
<i>Rolland, P.; Leprince, Ph.; Marec, J.; Michel, G.; Lanouni, K.; Jurion, C.</i> Planar microwave plasma source.	470
<i>Schlanges, M.; Bornath, T.; Kremp, D.</i> Ionization and recombination processes in nonideal plasmas.	472
<i>Shimozuma, M.; Fujikawa, H.; Tagashira, H.</i> Diagnostics of N ₂ O and Ar mixture 50Hz plasma.	474
<i>Shishkin, G.; Shishkin, A.G.; Smirnov, A.P.</i> Effects of radial electron diffusion on RF driven current in a plasma.	476
<i>Suchanek, G.; Schade, K.</i> a-Si:H deposition rate limits due to plasma polymerization in gamma-regime low pressure RF-discharges.	478
<i>Taplamacioglu, M.C.; Bouziane, A.; Rowlands, A.R.; Waters, R.T.</i> Low-pressure DC corona parameters.	480
<i>Thareja, R.K.; Abhilasha</i> Studies on laser produced carbon plasma in an ambient gas.	482
<i>Ulyanov, K.</i> A non-steady-state model of forming of the leader channel in electronegative gases.	484
<i>Valentini, H.-B.; Wolff, D.</i> Axial mass transport, axial drift velocities and their radial profiles in low pressure columns.	486
<i>Vovchenko, Yu.</i> Secondary electron emission from quartz surface in the pulsing discharge.	488
<i>Vovchenko, Yu.; Besednich, D.V.</i> The determination of the electron energy distribution in noisy plasmas with the use of the numerical technique.	490
<i>Zengin, V.; Gokmen, A.; Suzer, S.; Rumeli, A.; Dincer, M.S.</i> Optical emission from high voltage discharges in binary gaseous mixture.	492
<i>Zhang, G.Q.; Goedheer, W.J.</i> A scalar model for RF discharges in electronegative gases.	494
<i>Szigeti, J.; Bakos, J. S.; Bürger, G.; Ignácz, P.N.; Kedves, M.Á.; Matus, L.</i> Investigation of laser blow-off plasma composition using time-of-flight.	496