

CONTENTS

Subject Area 9

IONIZATION GROWTH AND TRANSITION TO BREAKDOWN

<i>Aditya team</i> Breakdown Experiment on Aditya Tokamak	G/1.0 ... pag.	1005
<i>Asinovsky, E.I.; Panphilov, A.S.</i> On Soft X-Rays Generated by Waves of Electrical Breakdown in a Low Pressure Long Discharge Tube	G/2.0 ... pag.	1007
<i>Capitelli, M.; Colonna, G.; Gorse, C.; Paniccia, F.; Elets kij, A.V.; Smirnov, B.M.</i> Electric Breakdown in Air Caused by Thermal Instability	G/3.0 ... pag.	1009
<i>Choi, P.; Aliaga, R.; Kaufman, Y.</i> Effect of Pre-Discharge on a Pulsed Hollow Cathode Discharge in N ₂	G/4.0 ... pag.	1011
<i>Elets kij, A.V.; Smirnov, B.M.</i> The Kinetics of Prebreakdown Phenomena in Atmospheric Gas	G/5.0 ... pag.	1013
<i>Ershov, A.I.; Fedorov, V.B.; Fomenkov, I.V.</i> High Power Quasi-Continuous Laser Radiation Interaction with Carbon Plasma near the Threshold of Nonlinear Reflection	G/6.0 ... pag.	1015
<i>Favre, M.; Choi, P.; Chuaqui, H.; Lenero, A.M.; Wyndham, E.</i> Experimental Investigation of the Cathode Dependence in Pulsed Hollow Cathode Discharges	G/7.0 ... pag.	1017
<i>Fonte, P.</i> Numerical Model of Avalanche to Streamer Transition between Parallel Electrodes	G/8.0 ... pag.	1019
<i>Hemmati, M.</i> Breakdown Waves: Solutions for the Quasi-Neutral Region	G/9.0 ... pag.	1021
<i>Khomkin, A.L.; Shelyukhaev, B.P.</i> Influence of Diffusion on Ionisation Equilibrium Beginning under Local Heating of Metal Vapour and Molecular Gas Mixture	G/10.0 ... pag.	1023
<i>Kunhardt, E.E.; Barone, S.R.; Bentson, J.; Popovic, S.</i> Electrical Breakdown in the Space Environment	G/10.1 ... pag.	1025
<i>Penetrante, B.M.; Bardsley, J.N.</i> Nonequilibrium Simulation of the Commutation Phase in a Back-Lit Thyatron	G/11.0 ... pag.	1027
<i>Qiu, Y.; Zhang, M.C.; Kuffel, E.</i> Ionization and Attachment Coefficients Measured in SF ₆ and Argon Gas Mixtures	G/12.0 ... pag.	1029
<i>Rogashkova, A.I.; Vinogradov, A.A.; Bogdankevich, L.S.</i> Theory of Heating and Ionization in an Intensive Microwave Pulse Field	G/13.0 ... pag.	1031
<i>Rutkevich, I.M.; Tokar, P.M.</i> Acceleration of Electrons by Electric Breakdown Waves	G/14.0 ... pag.	1033
<i>Sharaevsky, V.N.; Bozhko, I.V.</i> Development of Ionization and Transition to Breakdown in Gases at Temperatures up to 2500 K	G/15.0 ... pag.	1035
<i>Silakov, V.P.; Chebotirev, A.V.</i> Kinetic and Gasdynamic Instability in the Impulse-Periodical Discharge in the Flows of the Molecules High Pressure Nitrogen	G/16.0 ... pag.	1037
<i>Venkateshaiah, G.R.; Naidu, M.S.</i> Ionization Coefficients and Breakdown Voltages in Ternary Gas Mixtures of SF ₆ - CCl ₂ F ₂ - N ₂	G/17.0 ... pag.	1039

Subject Area 14
RADIO FREQUENCY, HIGH FREQUENCY
AND MICROWAVE DISCHARGES

- Akhmedzhanov, R.A.; Polushkin, I.N.; Rostovtsev, Yu.V.; Yazenkov, V.V.*
The Cesium Line Broadening Measurement in Microwave Discharge G/18.0 ... pag. 1041
- Andreev, V.V.; Apracsin, A.A.*
Parameters of Relativistic Plasma Created by ECR Discharge in Time Dependent Magnetic Mirror Trap G/19.0 ... pag. 1043
- Balmashnov, A.A.; Golovanivsky, K.S.; Omeljanovsky, E.M.; Pakhomov, A.V.; Polyakov, A.V.*
CERA-C: The System for Hydrogenation of Semiconductors by the Method of Crossed Beams G/20.0 ... pag. 1045
- Belenguer, Ph.; Böhm, C.; Boeuf, J.P.; Perrin, J.*
Investigations of RF Discharges in Silane Based on Experimental Diagnostics, Particle in Cell and Fluid Models G/21.0 ... pag. 1047
- Benova, E.; Zhelyazkov, I.*
Axial Structure of Argon Plasma Columns Sustained by Traveling Electromagnetic Surface Waves at Recombination Gas-Discharge Regime G/22.0 ... pag. 1049
- Biehler, S.*
The Effect of Collisions and RF Modulation on the Ion Distribution Function in a RF Sheath G/23.0 ... pag. 1051
- Böhm, C.; Perrin, J.*
Spatially- and Time-Resolved Optical Emission Spectroscopy of Helium RF Discharges G/24.0 ... pag. 1053
- Braithwaite, N.St.J.; Booth, J.P.*
The Initial Stages of a Distributed Electron Cyclotron Resonance Plasma G/25.0 ... pag. 1055
- Bzenić, S.A.; Radovanov, S.B.; Velikić, Z.B.; Petrović, Z.Lj.; Jelenković, B.M.*
Excitation Processes in Low Frequency RF Discharge of Hydrogen G/26.0 ... pag. 1057
- Capriati, G.; Belenguer, Ph.; Boeuf, J.P.*
Fluid and Particle in Cell Models of RF Discharges in Helium. Comparison with Experiments G/27.0 ... pag. 1059
- Crawford, M.; Calico, S.; Kristiansen, M.; Hatfield, L.*
Pulsed Microwave Breakdown of Solid Dielectric/Gas Interfaces G/28.0 ... pag. 1061
- Diachenko, V.V.; Larionov, M.M.; Levin, L.S.*
RF Discharge in Toroidal Magnetic Field G/29.0 ... pag. 1063
- Dougar-Jabon, V.D.; Reznikov, D.V.; Santos Mayorga, R.*
ECR Heating Efficiency on the Resonance Surface Shape in a Magnetic Mirror Trap G/30.0 ... pag. 1065
- Dvinin, S.A.; Ankudinov, S.G.; Kuzovnikov, A.A.; Ovsyannikov, S.V.*
Instability of Space Charge Layer in High Frequency Plasma to Surface Wave Excitation G/31.0 ... pag. 1067
- El Shaer, M.*
Probe Measurements in a Microwave Discharge G/32.0 ... pag. 1069
- Fang, M.T.C.; Li, P.F.*
Inductively Coupled Low Pressure H-mode Discharge G/33.0 ... pag. 1071
- Freisinger, J.; Krempel-Hesse, J.; Krumeich, J.; Löb, H.; Münz, W.D.; Scharmann, A.*
The RF-Ion Source PRIS 10 with the RF-Induction Coil Placed inside the Discharge Plasma G/34.0 ... pag. 1073

- Godyak, V.A.; Piejak, R.B.*
A Comparison of Electron Energy Distribution in Ar and He RF Discharges G/35.0 ... pag. 1075
- Gordeev, A.I.; Kovalevskii, V.L.; Savinov, V.P.; Schorin, A.V.*
The Physical Processes Dynamics in the HF Discharge near Electrode Region G/36.0 ... pag. 1077
- Goruppa, A.A.; Annaratone, B.M.; Allen, J.E.*
Comparison between Retarding Field and Cylindrical Mirror Energy Spectra in a Parallel Plate RF Argon Discharge G/37.0 ... pag. 1079
- Gusakov, E.Z.; Savel'ev, A.N.*
Nonlinear Theory of Absolute Parametric Instability in an Inhomogeneous Plasma G/38.0 ... pag. 1081
- Guymont, O.; Pointu, A.M.; Le Duc, E.*
Helium Wave-Sustained R.F. Discharge G/38.1 ... pag. 1083
- Haverlag, M.; Kono, A.; Kroesen, G.M.W.; De Hoog, F.J.*
Measurement of Electron and Negative Ion Densities in Fluorocarbon RF Plasmas G/39.0 ... pag. 1085
- Höthker, K.; Amemiya, H.; Belitz, H.J.; Bieger, W.; Oyama, H.; Shigueoka, Y.; Yano, K.*
Experimental Study on the Electron Cyclotron Discharge ECR-3 G/40.0 ... pag. 1087
- Howling, A.A.; Hollenstein, Ch.; Paris, P.J.; Finger, F.; Kroll, U.*
Power Transfer Measurements in VHF Plasmas G/41.0 ... pag. 1089
- Ivanov, V.A.; Konyzhev, M.E.; Loza, M.I.; Ravaev, A.A.*
Generation of High Potentials and Fast Electron Diagnostic in Microwave Produced Plasma Flare G/42.0 ... pag. 1091
- Kaganovich, I.D.; Tsandin, L.D.*
Space-Time Averaging Procedure and Modeling of RF Discharge. Model of Low Pressure RF Discharge G/43.0 ... pag. 1093
- Kando, M.; Kamio, K.*
Novel Method of Microwave Discharges at Atmospheric Pressures Promoted by Use of Stubs G/44.0 ... pag. 1095
- Karditsas, P.J.*
The Effect of Resonance Radiation on AC Discharge Nonequilibrium Flowing Helium-Cesium Mixtures G/45.0 ... pag. 1097
- Kawano, H.; Annaratone, B.M.; Allen, J.E.*
Angular and Spatial Resolution of the EEDF in a Low Pressure RF Discharge G/46.0 ... pag. 1099
- Kazantsev, S.A.; Drachev, A.I.; Rudakova, T.V.; Rys, A.G.; Subbotenko, A.V.*
Spectropolarimetric Diagnostics of Power Delivered to the High Frequency Discharge Plasma via Electrode Sheaths G/47.0 ... pag. 1101
- Kishimoto, K.; Murata, M.; Uchida, S.; Tanaka, M.; Komori, A.; Kawai, Y.*
ECR Plasma CVD using a Slotted Lisitano Coil in Different Magnetic Field Configurations G/48.0 ... pag. 1103
- Kobayashi, Y.; Katoh, M.; Sugawara, M.*
Compensation Technique of R.F. Potential Variation for Langmuir Probe in R.F. Discharge Plasmas G/49.0 ... pag. 1105
- Kogan, E.Ya.; Kusun, B.U.*
The Peculiarities of SHF Discharge in Molecular and Atomic Gases G/50.0 ... pag. 1107
- Koh, W.H.; Choi, N.H.; Oh, Y.H.; Choi, D.I.*
An Electromagnetic Particle Simulation of ECR-Microwave Discharge G/51.0 ... pag. 1109

<i>Kortshangen, U.; Schlüter, H.</i> On the Influence of Coulomb Collisions on the Electron Energy Distribution Function of Surface Wave Produced Plasmas	G/52.0 ... pag. 1111
<i>Korukov, A.N.; Moskalev, I.N.; Nasedkin, Yu.F.; Nikulin, M.G.; Serov, A.A.; Chistjakov, A.O.</i> Experimental Investigations of Impulse Beam-Plasma Discharge in Magnetic Field Formation and Decay	G/53.0 ... pag. 1113
<i>Meijer, P.M.; Goedheer, W.J.</i> Modeling of the Space and Time-Dependent Electron Dynamics in RF Dis- charges	G/54.0 ... pag. 1115
<i>Nonaka, S.</i> Characteristic of Metal Surface Waves along Planar Electrodes in Large-Area Radio Frequency Discharges	G/55.0 ... pag. 1117
<i>Nonaka, S.</i> Effects of Magnetic Field on Radio Frequency Discharges between Planar Elec- trodes	G/56.0 ... pag. 1119
<i>Nonaka, S.</i> Ion Contributions to Radio Frequency Discharges between Planar Electrodes	G/57.0 ... pag. 1121
<i>Ohmori, Y.; Kitamori, K.; Date, A.; Sakai, Y.; Tagashira, H.</i> Spatial Radical Distribution in SiH ₄ RF Plasma	G/58.0 ... pag. 1123
<i>Ohte, T.; Sugawara, M.</i> Effect of the Variable Sheath Voltage on the Plasma Parameters of R.F. Dis- charges	G/59.0 ... pag. 1125
<i>Raizer, Yu.P.; Shneider, M.N.</i> Normal and Abnormal Regimes of α -Radio Frequency Discharge, Transition into γ -Type and Evolution of α - and γ -Discharge Formation	G/60.0 ... pag. 1127
<i>Rogashkova, A.I.; Shustin, G.Ye.; Vladimirov, S.V.; Nikulin, M.G.</i> Beam-Plasma Discharge in the Absence of Containing Fields	G/61.0 ... pag. 1129
<i>Rousseau, V.; Boisse-Laporte, C.; Leprince, P.; Marec, J.</i> Plasma Length Dependence of a Pulsed Surface Wave Discharge in O ₂ /N ₂ Air- Like Mixture	G/62.0 ... pag. 1131
<i>Sá, P.A.; Loureiro, J.; Ferreira, C.M.</i> Effects of Electron-Electron Collisions on the Characteristics of DC and Mi- crowave Discharges in Argon at Low Pressures	G/63.0 ... pag. 1133
<i>Scanlan, J.V.; Hopkins, M.B.</i> Production and Loss Mechanisms in RF Plasmas	G/64.0 ... pag. 1135
<i>Shibkov, V.M.</i> Kinetics of Electrons in Plasma of the Free Localized Microwave Discharge	G/65.0 ... pag. 1137
<i>Shibkov, V.M.</i> The Electric Field in the Electrodeless Microwave Discharge in the Focused Beam	G/66.0 ... pag. 1139
<i>Shivarova, A.; Tatarova, E.; Zamfirov, D.</i> Experiments on the Electron Energy Distribution in Surface Wave Sustained Plasma	G/67.0 ... pag. 1141
<i>Sidorov, V.P.; Minenko, V.P.; Tsypin, V.S.</i> Ion Cyclotron Resonance Separation of Isotopes	G/68.0 ... pag. 1143
<i>Sokolov, I.V.</i> Microwave Breakdown in the Air in the Presence of Intensive Light Beam	G/69.0 ... pag. 1145

- Sola, A.; Gamero, A.; Cotrino, J.; Sáez, M.; Lao, C.; Calzada, M.C.; Quintero, M.D.; Ballesteros, J.*
 Simultaneous Determination of the Electron Density and Temperature Using Balmer Lines Stark Broadening in Argon Microwave-Induced-Plasmas (MIP) at Atmospheric Pressure G/70.0 ... pag. 1147
- Sugawara, M.; Itabashi, M.; Takani, H.*
 The Temporal Evolution of the Sheath Boundary in R.F. Discharge G/71.0 ... pag. 1149
- Terai, K.; Ohson, Y.; Kaneda, T.; Kubota, T.; Chang, J.S.*
 Plasma Parameter Profiles of He-O₂ RF Plasmas for an Operating Frequency from 0.3 to 13.56 MHz G/72.0 ... pag. 1151
- Tochikubo, F.; Kokubo, T.; Suzuki, A.; Kakuta, S.; Terazono, Y.; Makabe, T.*
 Study of the Structure in RF Discharges in CH₄ and H₂ by Spatiotemporal Optical Emission Spectroscopy G/73.0 ... pag. 1153
- Tsagareishvili, N.S.*
 Superhigh Power Microwave Breakdown in Low Pressure Gases G/74.0 ... pag. 1155
- Vlček, J.*
 Ionization and Recombination in an Argon ICP G/75.0 ... pag. 1157
- Yatsenko, N.A.*
 Evolution of the RF-Capacitive Discharge during the Process of Transition to the High-Current Regime G/76.0 ... pag. 1159