

Contents¹

Summary of the XXIII ICPIG A. Bouchoule, H. Brunet and L.C. Pitchford.....	VII
---	-----

General

Physics and Modeling of Plasma Display Panels <u>J.P. Bœuf</u> , C. Punset, A. Hirech and H. Doyeux	C4-3
A Guide to Laser-Induced Fluorescence Diagnostics in Plasmas T.G.M. Freegarde and <u>G. Hancock</u>	C4-15
Properties of Arc Cathode Spots <u>B. Jüttner</u>	C4-31
Dielectric-Barrier Discharges. Principle and Applications <u>U. Kogelschatz</u> , B. Eliasson and W. Egli	C4-47
Nonequilibrium in Thermal Plasmas with Applications to Diamond Synthesis <u>C.H. Kruger</u> , T.G. Owano, C.O. Laux and R.N. Zare	C4-67
Ectons and their Role in Electrical Discharges in Vacuum and Gases <u>G.A. Mesyats</u>	C4-93
The Birkeland Terrella Experiments and their Importance for the Modern Synergy of Laboratory and Space Plasma Physics <u>K. Rypdal</u> and T. Brundtland.....	C4-113
Gas Discharges Studies in Japan and some of my Own Researches <u>S. Takeda</u>	C4-133

Topical

Nonlocal Electron Kinetics in DC Discharges <u>L.L. Alves</u> , G. Gousset and C.M. Ferreira.....	C4-143
Crystal and Fluid-Like Assemblies in Plasma Sheaths B.M. Annaratone	C4-155
Modelling of the Parametric Behaviour of a Self-Heated Copper Vapour Laser: Issues Governing the Thermal Runaway Behaviour of the Plasma Tube Wall Temperature <u>R.J. Carman</u>	C4-167
Application of Non-Linear Optical Methods to Plasma Diagnostics <u>U. Czarnetzki</u>	C4-175
Transient Phenomena in Plasma Torches and in Plasma Sprayed Coating Generation <u>P. Fauchais</u> , J.F. Coudert and M. Vardelle	C4-187
Grafting of Chemical Groups onto Polymers by Means of RF Plasma Treatments: a Technology for Biomedical Applications <u>P. Favia</u> , R. d'Agostino and F. Palumbo	C4-199

¹ Underlined names in the contents and in paper headings correspond to authors who presented orally the corresponding communications.

Time Resolved Spectroscopy of RF Plasmas: A Comparison of Hydrogen and Deuterium Plasmas <u>W.G. Graham</u> and C.M.O. Mahony.....	C4-209
Interaction of Grains in Dusty Plasmas <u>A.M. Ignatov</u>	C4-215
The Switching Dynamics of the Plasma Addressed Liquid Crystal Display <u>K.J. Ilcisin</u> , T.S. Buzak and G.J. Parker	C4-225
Production of Large Diameter ECR Plasma <u>Y. Kawai</u> and Y. Ueda.....	C4-235
Emission Spectroscopy of the Cathode Fall Region of an Analytical Glow Discharge <u>N. Konjević</u> , I.R. Videnović and M.M. Kuraica.....	C4-247
Triggering of Negative Corona <u>M. Laan</u> , P. Paris and V. Repän.....	C4-259
The Coupling of PIC/MCC Models of Discharge Plasmas with Vibrational and Electronic Kinetics <u>S. Longo</u> , M. Capitelli and K. Hassouni.....	C4-271
A Unified Theory of Arcs and their Electrodes <u>J.J. Lowke</u>	C4-283
High-Frequency Magnetoplasmas in Electronegative Gases <u>J. Margot</u> , M. Chaker, L. St-Onge, M. Tabbal, A. Aliouchouche, O. Pauna, C. Alinot and C. Kliagine	C4-295
Laboratory Observations of Wave-Induced Radial Transport within an "Artificial Radiation Belt" <u>M.E. Mauel</u>	C4-307
Measurements of High Density Plasmas after Pulsed Discharges in Liquid Helium <u>W. Qin</u> , <u>K. Minami</u> , A.W. DeSilva and F. Tomimoto	C4-319
Generation of Supersonic Plasma Flow by Means of Unipolar RF Discharges M. Novák, M. Šícha, V. Kapička, L. Jastrábík, L. Soukup, Z. Hubička, M. Klíma, P. Slavíček and A. Brablec	C4-331
Negative Differential Resistance, Oscillations and Constrictions of Low Pressure, Low Current Discharges <u>Z.Lj. Petrović</u> , I. Stefanović, S. Vrhovac and J. Živković.....	C4-341
Progress in the Development of Table-Top Discharge-Pumped Soft X-Ray Lasers <u>J.J. Rocca</u> , F.G. Tomasel, C.H. Moreno, V.N. Shlyaptsev, M.C. Marconi, B.R. Benware, J.J. Gonzalez, J.L.A. Chilla and C.D. Macchietto	C4-353
Quasistatic Plasma Sources: Physical Principles, Modelling Experiments, Application Aspects <u>K.P. Shamrai</u> , A.F. Aleksandrov, G.E. Bougov, V.F. Virko, V.P. Katiukha, S.K. Koh, E.A. Kralkina, G.S. Kirichenko and A.A. Rukhadze	C4-365
The Oscillations of the Positive Glow Corona R.S. Sigmond	C4-383
Langmuir Probe Diagnostics for Medium Pressure and Magnetised Low-Temperature Plasma <u>M. Tichý</u> , P. Kudrna, J.F. Behnke, C. Csambal and S. Klagge	C4-397
Nonlinear Wave Phenomena in an Electron-Beam Plasma <u>K. Yamagiwa</u> , T. Itoh and T. Nakayama.....	C4-413
Author Index	C4-421