INVITED LECTURES, TOPICAL INVITED LECTURES AND PROGRESS REPORTS

Section 1. ATOMIC COLLISION PROCESSES

1I-1 **P.S. Krstić**
Nearly-adiabatic atomic physics: methods-data-devices

1I-2 **M. Allan, T. Skalicky and S. Živanov**
Electron-molecule collision experiments

1I-3 **L. Ulhmann, R. Dall, J. Swansson, V. Leung, M.D. Hoogerland, A.G. Truscott,K. G. H. Baldwin and S.J. Buckman**
Atomic physics research with laser-cooled, metastable helium atoms

1I-4 **A. Maquet, R. Taieb and V. Veniard**
Atomic response to intense and ultra-intense radiation fields

1T-1 **G.P. Karwasz, Z.Lj. Petrović and J. Mechlinska-Drewko**
Integral cross section for electron scattering on molecules-from beam to swarm experiments

1T-2 **D.S. Belić, J. Jureta, H. Cherkani, O. Abdellahi and P. Defrance**
Ionization and dissociation of N_2^+ and O_2^+ ions by electron impact

1P-1 **R. Panajotović, M. Kitajima, J.C.A. Lower, H. Tanaka and S.J. Buckman**
Cross section for elastic and inelastics electron scattering from C_2H_4, C_2F_4 and C_4F_8

1P-2 **P. Beličev**
Influence of spiral inflector on transversal beam emittance

1P-3 **A.I. Strinić and G.N. Malović**
Excitation coefficients for atomic and ionic levels of rare gases and methane

1P-4 **M. Radmilović-Radjenović**
Modelling of non-equilibrium low-pressure discharges using Monte-Carlo method

1P-5 **G. B. Poparić and D. S. Belić**
Electron impact excitation of valence and Rydberg states of N_2 and CO molecules

Section 2. PARTICLE AND LASER BEAM INTERACTION WITH SOLIDS

2I-1 **P. Schaaf**
Reactive surface modifications by laser beams with and without employing plasma formation

2I-2 **W. Bolse**
Atomic transport in swift heavy ion tracks

2I-3 **Y. Serruys, P. Trocellier and D. Gosset**
Measurement of ^{3}He diffusion in ceramics using nuclear reaction spectrometry

2I-4 **K.P. Homewood, M.A. Lourenco, R.M. Gwilliam and G. Shao**
Ion beam engineered silicon light emitting diodes

2T-1 **G. Shao**
Transmission electron microscopy of ion beam synthesized semiconducting thin films

2T-2 **R. Webb**
The computer simulation of cluster/molecule surface interaction

2T-3 **S. Dhar, M. Milosavljević, P. Schaaf, N. Bibić and K.P. Lieb**
Ion beam mixing and silicide formation in Fe/Si and Ta/Si bilayers

2P-1 **Z. L. Mišković and Y-N. Wang**
Non-stationalry and vicinage effects on charge state of fast atomic, molecular and cluster ions in thin foils

2P-2 **B.M. Gaković**
Surface modification of titanium based thin films/coatings by pulsed IR laser beam

2P-3 **Lj. D. Nedeljković and N.N. Nedeljković**
Quantum teleology of the ion-surface interactions

Section 3. LOW TEMPERATURE PLASMAS

3I-1 **T. Makabe**
Introduction to Vic-Address:-vertically itegrated computer aided design for device processing-

3I-2 **M. Gigosos and M.A. Gonzalez**
Computer simulated hydrogen line profiles for non equilibrium plasmas

3I-3 **S.N. Raikov**
Intracavity laser spectroscopy of laser ablation plasma

3I-4 **V. Godyak**
Plasma parameters of low pressure ICPs

3T-1 **V.M. Astashynski, M.M. Kuraica and J. Purić**
Plasma dynamic processes accompanying nigh energy compression flows interaction with surfaces

3T-2 **H. Thomas, M. Hedler, D. Labruier and H. Hucker**
Plasma-induced finishing of textile fibres

3P-1 **Z.M. Marković**
Kinetics of fullerene formation in plasma arc reactor

3P-2 **I. Stefanović, E. Kovačević, J. Berndt and J. Winter**
Particle build-up and decay in low temperature reactive plasmas

3P-3 **P.Lj. Stefanović**
Thermal and flow conditions for the plasma synthesis of ultrafine silicon-nitride powder

Section 4. GENERAL PLASMAS

4I-1 **E. Mediavilla**
2D spectroscopy of ionized gas in gravitational lenses

4I-2 **V.M. Čadež**
Space weather: solar activity and its effects on the Earth

4I-3 **M. Okamoto, A. Maluckov, S. Satake, N.Nakojima and H. Sugama**
Transport and radial electric field in torus plasma

4T-1 **H. Nagatomo, T. Johzaki, K. Nishihara, K. Mima and H. Takabe**
Computational simulations for laser fusion in ILE Osaka

4T-2 **S.V. Vladimirov**
Collective and dynamic phenomena in complex plasmas

4T-3 **M.Y. Tanaka, K. Nagaoka, A. Okamoto, S. Yohsimura, M. Kono and J. Vranješ**
Experimental studies on vortex formation in plasmas

4P-1 **M.S. Dimitrijević, L.Č. Popović, N. Milovanović, S. Simić, Z. Simić and P. Jovanović**
Applications of the modified semiempirical method for stellar plasma investigations

4P-2 **L.Č. Popović, E.G. Mediavilla, P. Jovanović, J.A. Munoz and M.S. Dimitrijević**
The microlensing influence on AGN spectral line shapes: from X-ray to the optical wavelength range

4P-3 **M.S. Jovanović, Lj. Hadžievski, M.M. Škorić and K. Mima**
Electromagnetic solitons in relativistic laser-plasma interaction